DEKI
Film Capacitor Solutions

Film Capacitor Solutions for the World

CATALOGUE 2014

Deki Electronics Ltd

TS 16949:2009 / ISO 9001:2008 / ISO 14001:2004 Company

Deki Electronics is like a bonsai. Small yet complete.
Complete range of plastic film capacitors with a choice of technologies.

Every branch and twig shaped or eliminated until the chosen image is achieved.
Clear focus on quality and providing solutions.

The image maintained and improved by constant pruning and trimming.
Commitment to training and knowledge enhancement.

Deki at a Glance

Year of establishment: 1984 in technical collaboration with Okaya Electric Industries, Japan.

Capacity: 1.2 billion pieces per annum as on 1st October 2012.

Technologies available: Film foil inductive & non-inductive construction, metallised non-inductive construction.

Types of capacitors: Plain Polyester / Metallised Polyester / Plain Polypropylene / Metallised Polypropylene, Plain & Metallised Polypropylene Mixed / Mixed Dielectric.

Encapsulation: Wet, powder epoxy coating and box.

Pitches of capacitors: 5 mm to 52.5 mm in epoxy coating, box and tape wrapped.

Applications: Blocking / Coupling / By passing / Timing circuits / Tuning & Oscillation / Filtering & Frequency discrimination / Temperature Compensation / Interference Suppression / Voltage dropper / TV Flyback tuning / TV 'S' Correction / Snubber / Discharge Ignition / Pulse Coupling, etc.

Segments covered: TVs / Audios / Telecom / Lighting (HF, CFL Ballast and LED) / Medical Electronics / Industrial Electronics / Auto Electronics / IT Hardware / Fan Regulators / Energy meters, etc.

Approvals: CACT / ERTL / ENEC / UL / ISO 9001:2008 / ISO 14001:2004 ISO/TS 16949:2009.

Customer specification approvals: BAG / GE / Havells / JVC / Sanyo/ Sharp / Sony / Sylvania / Philips / Toshiba / Panasonic / Osram, etc.

PPM level: Single Digit.

MANUFACTURING FACILITY

Deki's state-of-the-art manufacturing facility is housed at B-20, Sector 58, Noida, an established industrial township within the National Capital Region of Delhi, India. The capacity has grown steadily from 10 million pieces in 1984 to 1.2 billion pieces per annum as on 1st October 2012.

The plant and machinery are largely imported from Europe, Japan, Taiwan and Korea and every effort to maintain them in the most efficient health is made. The entire maintenance, capital goods and spares development is handled by an Engineering Solutions cell. Strict adherence to well-planned, preventive schedules is ensured.

The housekeeping policy at the plant is based on the 5S concept. The central theme in all such efforts is employee ownership. Fifty eight areas with identified owners ensure that a clean, safe and comfortable working environment is made available. Each member cleans his own workplace and only when necessary, invites help from the housekeeping team.

TQM AND WORK CULTURE

A number of TQM initiatives have been put in place since 1999. Policy deployment is done every year in March based on the company's Single Page Strategy. The single page strategy document lists the strategic direction and the business enablers which will help in achieving the results and the 'must do' actions for the current year. Roadmaps arising out of this are reviewed every month.

External and internal customer satisfaction surveys and employee satisfaction surveys are carried out every six months. Inputs from these surveys are used to make improvement plans which are shared with the customers and employees.

Monthly PPM activity currently takes place with thirteen customers with an objective to reduce our PPM level even further from the current level of five.

The management team of Deki is committed to provide a stimulating, learning-oriented, transparent and professional environment wherein total involvement of each and every member is encouraged. The work culture is oriented towards arriving at decisions by consensus. All members have pledged to strictly follow all decisions so arrived at. A prayer session is held every morning. One of the members is then given an opportunity to share a thought of common interest with the team.

Training, at Deki, is an integral part of the development curriculum with 3% of working time spent on it. Training needs are identified during regular interactions and especially during performance appraisals, road map reviews and shop floor meetings. Accordingly, training schedules are drawn up and followed up through coordination to ensure that the identified needs are effectively addressed. Shop floor personnel are engaged in problem solving and improvement teams. These small group activities have helped in the personal development of individuals as they are now equipped with problem solving tools such as 7 QC tools, CEDAC(Cause and Effect diagram with addition of Cards) and DMAIC methodology of 6 Sigma. The 6 Sigma movement was started in October 2009 and more than 45% of the workforce is involved in it.

A moving suggestion box scheme is also in use. All suggestions are collected during the week and presented in the morning assembly on Saturdays. All suggestions found viable are implemented as top priority action and awarded suitably.

QUALITY ASSURANCE

The quality assurance system enforced at Deki, certified in accordance with ISO 9002 since November 1994, has been upgraded to ISO 9001:2008 in December 2009 and quality procedures are laid out in the quality manual. The procedures have been developed taking into consideration international standards, customer requirements and internal performance standards. The system is designed to ensure satisfaction of customers in respect of quality, functional performance, delivery performance, price/ performance ratio and overall service satisfaction. Deki team members have been extensively trained to

follow principles of "first time right" and in case of all corrective actions, the PDCA cycle.

Quality assurance is an all pervasive activity at Deki, transcending all vital functions starting from raw material vendor selection, sourcing, incoming inspection through process inspection to final inspection and storage/ despatch. Modern quality tools such as the 7 QC tools, Statistical Process Controls (SPC), Failure Mode and Effects Analysis (FMEA), Design of Experiments (DOE), Cause and Effect Diagram with Addition of Cards (CEDAC) and Six Sigma are used regularly to ensure continual improvement in quality and reliability.

AQL (Acceptable quality level): All outgoing inspection is carried out as per Inspection Standard ISO 2859 / IS 2500 or IEC 410. Sampling plan followed is single sampling for normal inspection. AQL for all electrical properties is 0.1; this ensures that not even a single failure is acceptable.

RELIABILITY

All capacitors are subject to qualification approval test as per relevant IEC standards in order to ensure reliability:

Plain Polyester film / foil capacitors: IEC 384-11

Plain Polypropylene film / foil capacitors: IEC 384-13

Metallised Polyester film capacitors: IEC 384-2

AC & Pulse MPP film capacitors: IEC 384-17

Interference Suppression Capacitors: IEC 384-14

The environmental and endurance testing is carried out periodically at the in-house test laboratory.

TECHNICAL CENTRE

The Deki Technical Centre is recognised as "In-house R&D Unit" since June 2011 by the Department of Science & Industrial Research, Government of India. It is primarily responsible for:

Customer Application Support. Assistance is offered to customers for selection of appropriate type of capacitors to suit intended application.

Design and Development of Capacitors. Market requirements are clearly understood and converted into new designs in close association with customers. All designs are subjected to reliability testing and confirmation as part of the pre-release procedure.

Turnover from new products is being monitored for the last ten years and we are consistently generating 25% of our turnover from new products.

Documentation Centre. Specifications of raw material, process specifications and customer product specifications are kept here. In addition, all relevant national and international standards are available in the centre.

Training Cell. Training is undertaken for manufacturing and marketing teams.

Competitor Analysis. Market probe for development around the world and for benchmarking exercises.

Reliability Testing. The centre is equipped with an environmental test laboratory wherein a host of reliability and endurance testing can be carried out. This in-house facility is used for ensuring reliability before release of any new design, input or process.

Approval Coordination. This is also the nodal agency for coordination with all external test facilities for testing and approval of Deki capacitors.

Pilot Plant. The centre has an independent production facility wherein the critical processes can be carried out under controlled conditions.

Technical Face. The centre is the technical interface between the company and its customers. The centre head is responsible for making the company technically proficient.

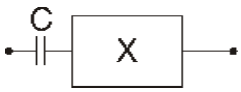
Technical Seminars are conducted on a regular basis for common interest groups of customers where application aspects specific to the user industry are addressed.

The centre also contributes regularly to the Deki news bulletin ***Charge***.

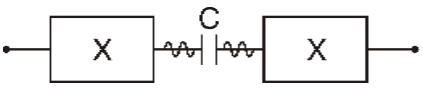
	Capacitance Range in µf	Rated Voltage	Marking Example	Page
POLYESTER FILM CAPACITORS				
PLAIN POLYESTER FILM CAPACITORS (Inductive) Epoxy coated	0.1 0.001 ~ 0.47 0.001 ~ 0.1 0.001 ~ 0.1 0.001 ~ 0.033, 0.0022 ~ 0.0068, 0.0022 ~ 0.056 0.0022 ~ 0.0047	63V DC 100V DC 250V DC 400V DC 630V DC 1000V DC 1250V DC 1600V DC	D 104 K 1J	16
PLAIN POLYESTER FILM CAPACITORS FOR LIGHTING APPLICATIONS Epoxy coated	0.001~ 0.01 0.001~0.0068 0.0047 ~ 0.0068	630V DC 1000V DC 250V AC	D 332 K 2J	20
PLAIN POLYESTER FILM CAPACITORS (Non-Inductive) Epoxy coated/Box	0.015 ~ 0.47 0.01 ~ 0.47 0.0022 ~ 0.1 0.0022 ~ 0.1 0.0047 ~ 0.01	100V DC 250V DC 400V DC 630V DC 1000V DC	PET NI D 104 J 2D	21
INDUCTIVE SELF HEALING POLYESTER CAPACITORS DTSH CAPACITORS	0.0033 ~ 0.01 0.0033 ~ 0.01	1250V DC 1600V DC	DTSH 102 K 3C	23
METALLISED POLYESTER FILM CAPACITORS (Subminiature) Epoxy coated/Box Pitch 5 mm	0.1 ~ 1.0 0.047 ~ 1.0 0.001 ~ 0.33 0.001 ~ 0.1 0.001 ~ 0.047	50V DC 63V DC 100V DC 250V DC 400V DC	1µ0 J 63	25
METALLISED POLYESTER FILM CAPACITORS (Miniature) Epoxy coated/Box Pitch 7.5 mm	0.1 ~ 1.0 0.033 ~ 0.47 0.01 ~ 0.22 0.0047 ~ 0.068 0.0015 ~ 0.022	63V DC 100V DC 250V DC 400V DC 630V DC	1µ0 J 63	29
METALLISED POLYESTER FILM CAPACITORS (Standard Pitch) Epoxy coated/Box Pitch 10 mm to 27 mm	0.1 ~ 4.7 0.027 ~ 3.3 0.01 ~ 3.3 0.01 ~ 1.0 0.18 ~ 0.47	100V DC 250V DC 400V DC 630V DC 1000V DC	MPET D 104 K 2A	33
METALLISED POLYESTER/POLYPROPYLENE FILM CAPACITORS Round/Flat Axial Tape Wrapped	0.1 ~ 10.0 0.068 ~ 10.0 0.01 ~ 4.7 0.01~ 2.2 0.01 ~ 1.0	63V DC 100V DC 250V DC 400V DC 630V DC	D 104 K 2A	37-38
MIXED DIELECTRIC FILM CAPACITOR				
PLAIN POLYESTER & POLYPROPYLENE CAPACITORS (PEP) (Inductive) Epoxy coated	0.00068 ~ 0.0056 0.00068 ~ 0.0056	1000V DC 1250V DC	DPEP 332 K 3A	39
POLYPROPYLENE FILM CAPACITORS				
PLAIN POLYPROPYLENE FILM CAPACITORS (Inductive) Epoxy coated	0.00022 ~ 0.1 0.00022 ~ 0.01 0.001 ~ 0.0056 0.001 ~ 0.022 0.001 ~ 0.0068	100V DC 250V DC 400V DC 630V DC 1000V DC	DPP 103 K 2A	41
PLAIN POLYPROPYLENE FILM CAPACITORS (Non-Inductive) Epoxy coated/Box	0.015 ~ 0.47 0.01 ~ 0.22 0.0022 ~ 0.1	250V DC 400V DC 630V DC	PP NI D 104 J 2D	44
AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (PP/MPP Series) Epoxy coated/Box	0.0033 ~ 0.068 0.0022 ~ 0.033 0.001 ~ 0.022 0.0001 ~ 0.012	1000V DC 1250V DC 1600V DC 2000V DC	PP / MPP D 103 J 3D	47
AC & PULSE METALLIZED POLYPROPYLENE FILM CAPACITORS (PP/MPP Reduced Pitch) Epoxy Coated	0.0022 ~ 0.0068	1250V DC 400V AC	PP MPP D222K3B	51
AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series) Epoxy coated	0.047 ~ 2.2 0.022 ~ 1.0 0.01 ~ 0.47	250V DC 400V DC 630V DC	MPP D 105 J 2E	52

	Capacitance Range in µf	Rated Voltage	Marking Example	Page
AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP/MPP Series) DC Application Epoxy coated/Box	0.0022 ~ 0.0039 0.0082 ~ 0.15 0.0022 ~ 0.022 0.0056 ~ 0.10 0.001 ~ 0.047	1250V DC/400V AC 1250V DC/500V AC 1600V DC/500V AC 1600V DC/700V AC 2000V DC/700V AC	MPP/MPP D 104 J 3B	55
AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MMPP Series) Epoxy coated/Box	0.0082 ~ 0.082 0.0033 ~ 0.056 0.00022 ~ 0.033	1250V DC/500V AC 1600V DC/500V AC 2000V DC/700V AC	MMPP D 103 J 3D	59
AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP/MPP Series) AC Application Epoxy coated/Box	0.001 ~0.056 0.001 ~ 0.039 0.001 ~ 0.018	500V AC 700V AC 900V AC	MPP/MPP D 105 J 07	63
INDUCTIVE SELF HEALING POLYPROPYLENE CAPACITORS DPSH CAPACITORS	0.0027 ~ 0.01 0.0039 ~ 0.01 0.0015 ~ 0.01	1250V DC 1600V DC 2000V DC	DPSH 102 K 3C	66
INTERFERENCE SUPPRESSION CAPACITORS Potted, flame retardant box	(X2) 0.01 ~ 3.3	275V AC/305V AC	IS/MKP X2 16 D 104 K 305VAC 40/100/56/C	68
	(Y2) 0.001 ~ 0.1	250V AC	IS/MKP Y2 D 103 K 250 V AC	
INTERFERENCE SUPPRESSION CAPACITORS (Safety Capacitors) Class X2 Miniature Series	0.0047 ~ 10	275V AC 310V AC	IS/MKP X2 D 334 K 310VAC 40/105/56/B	69
CDI CAPACITORS Metallised Polyester Film cap. Epoxy coated	1.0 ~ 3.3	400V DC	CDI-MPET D 105 K 2G	74
Metallised Polypropylene Film cap. Epoxy coated	0.68 ~ 2.2	400V DC	CDI-MPP D 105 K 2G	
METALLISED POLYESTER FILM CAPACITORS Economic type	1.0 ~ 4.3	250V AC	MPET-EC D 105 K 250 V AC	75
METALLISED POLYESTER FILM CAPACITORS Switch type	1.0 ~ 4.3	250V AC	MPET-SW D 105 K 250 V AC	76
	1.0 ~ 3.3	250V DC	MPET-SW D 105 K 2E	
METALLISED POLYESTER FILM CAPACITORS Socket type	1.0 ~ 3.5	250V AC	MPET D 105 K 250 V AC	77
METALLISED POLYPROPYLENE FILM CAPACITORS Socket type	1.0 ~ 4.2	250V AC	MPP D 105 K 250 V AC	78
METALLISED SAFETY POLYESTER FILM CAPACITORS Ultima safety type	1.0 ~ 4.3	250V AC	MPET ULTIMA D 105 K 250 V AC	79
METALLISED SAFETY FILM CAPACITORS Optima safety type	1.0 ~ 3.7	250V AC	OPTIMA D 105 K 250 V AC	80
METALLISED SAFETY POLYPROPYLENE FILM CAPACITORS Ultima safety type	1.0 ~ 3.3	250V AC	MPP ULTIMA D 105 K 250 V AC	81
METALLISED POLYPROPYLENE FILM CAPACITORS (For AC Application) Epoxy coated/Box	0.1 ~ 0.22	275V AC	MPP-AC D 104 K 275 V	82
	0.1 ~ 1.0	440V AC	MPP-AC D 414 K 440 V	
HIGH CAPACITANCE STABILITY CAPACITORS (AC Application) MPET-AC	0.1 ~ 1	310V AC	MPET-AC D 414 K 310 V	84
METALLISED POLYPROPYLENE DC LINK CAPACITORS Box type Pitch 27.5mm to 52.5mm	1 ~ 100 1 ~ 80 1 ~ 60 1 ~ 50 1 ~ 30 1 ~ 30	450V DC 700V DC 800V DC 900V DC 1100V DC 1200V DC	MPP- DC LINK D 105 K 450 V	86

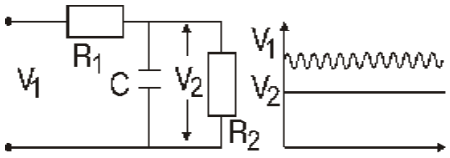
Guide to Film Capacitors

Application / Function desired	Expected Capacitor Parameter	Circuit Diagram
BLOCKING Once the capacitor is charged it passes no more DC (except for minor leakage, i.e., IR) hence C provides a high series impedance for limiting low frequency AC or DC current.	↑IR High insulation resistance.	

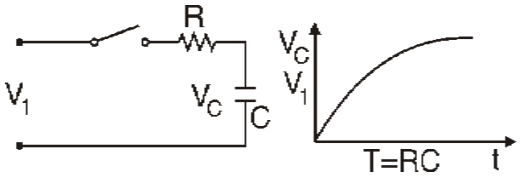
Deki Range
For C < 0.001 µf — Plain Polypropylene Film Capacitors.
For 0.001 < C ≤ 0.1 µf — Plain Polyester Film Capacitors.
For C > 0.1 µf — Metallised Polyester Film Capacitors.

COUPLING The capacitor actually acts as a conductor to AC (because of moving particles present in the dielectric) i.e., C provides a low series impedance for transferring AC signal information from one system to another.	Low dissipation factor (tan δ). Low inductance.	

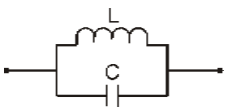
Deki Range
For C < 0.001 µf — Plain Polypropylene Film Capacitors.
For 0.001 < C ≤ 0.1 µf — Plain Polyester Film Capacitors.
For C > 0.1 µf — Metallised Polyester Film Capacitors.

BYPASSING Capacitor provides a low series impedance AC path around the given circuit element.	Low dissipation factor (tan δ). Low inductance. High insulation resistance.	

Deki Range
For C < 0.001 µf — Plain Polypropylene Film Capacitors.
For 0.001 < C ≤ 0.1 µf — Plain Polyester Film Capacitors.
For C > 0.1 µf — Metallised Polyester Film Capacitors.

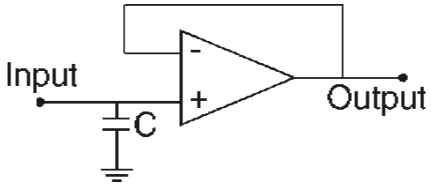
TIMING CIRCUITS In timing circuits capacitors are used to introduce time delays.	Stability of electrical characteristics (with reference to ambient temperature, etc.). Close capacitance tolerance	

Deki Range
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.047 µf — Metallised Polypropylene Film Capacitors.

TUNING AND OSCILLATION In tuning circuits capacitors and inductors are used to select the desired frequency signal.	Stability of electrical characteristics (with reference to ambient temperature and frequency). Close capacitance tolerance.	

Deki Range
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.047 µf — Metallised Polypropylene Film Capacitors.

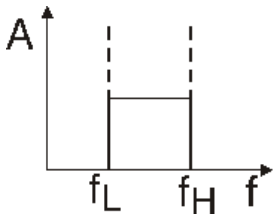
Guide to Film Capacitors (contd.)

Application / Function desired	Expected Capacitor Parameter	Circuit Diagram
SAMPLE AND HOLD CIRCUIT In this application C retains the stored energy.	Low dielectric absorption.	

Deki Range
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.047 µf — Metallised Polypropylene Film Capacitors.

FILTERING AND FREQUENCY DISCRIMINATION
Capacitor filter network designed for the frequency band F_L - F_H

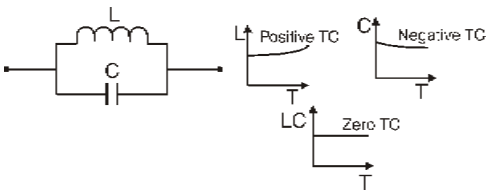
Stability of electrical characteristics.
Low dissipation factor.
Close capacitance tolerance.



Deki Range
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.047 µf — Metallised Polypropylene Film Capacitors.

TEMPERATURE COMPENSATION
Circuit design utilises change of capacitance with temperature

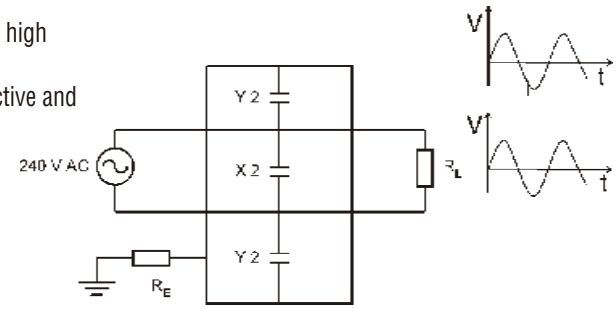
Linear temperature coeffcient
Stability of electrical values



Deki Range
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.047 µf — Metallised Polypropylene Film Capacitors.

INTERFERENCE SUPPRESSION
Capacitors are connected across the mains input to supress the interference generated by appliances or in the mains.

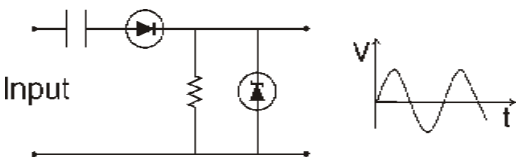
Should be able to handle high transient pulses.
High reliability against active and passive flammability.



Deki Range
Interference Suppression Capacitors.

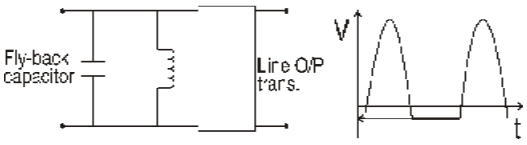
VOLTAGE DROPPER
Capacitors are connected in series to drop the input voltage. Used mainly in electronic energy meters and fan regulators.

Low loss factor.
Good reliability.
Flame retardant.



Deki Range
For rated voltage less than 250V AC — Interference Suppression Capacitors.
For rated voltage more than 250V AC — Metallised Polypropylene Film Capacitors for AC Application.
For rated voltage less than 220V AC and higher capacitance — Metallised Polyester Film Capacitors.

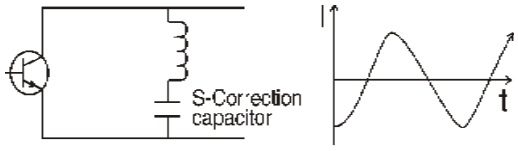
Guide to Film Capacitors (contd.)

Application / Function desired	Expected Capacitor Parameter	Circuit Diagram
TV FLY-BACK TUNING	Low dissipation factor. High dielectric strength. High pulse rise time rating.	

Deki Range
For good dv/dt rating —AC & Pulse Metallised Polypropylene Film Capacitors (MPP / MPP Series).
For very high dv/dt rating— AC & Pulse Metallised Polypropylene Film Capacitors (PP / MPP Series).

TV S-CORRECTION

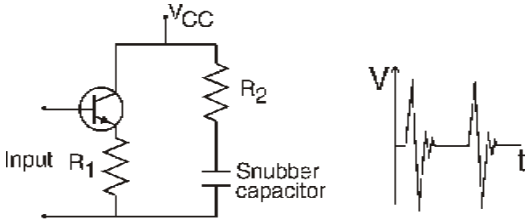
Low dissipation factor.
Stability of electrical characteristics.
Good current carrying capability.



Deki Range
AC & Pulse Metallised Polypropylene Film Capacitors (MPP Series).
High Current Film / Foil Polypropylene Film Capacitors (PP NI).

SNUBBER APPLICATION

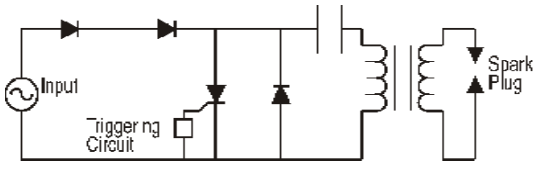
Low dissipation factor.
High dielectric strength.
High pulse rise time rating.



Deki Range
Plain Polypropylene Film Capacitors.
Plain Polypropylene Film Capacitors (Non-inductive) Box type.
AC & Pulse Metallised Polypropylene Film Capacitors (PP / MPP).
Film / Foil Polypropylene Film Capacitors (PP NI).

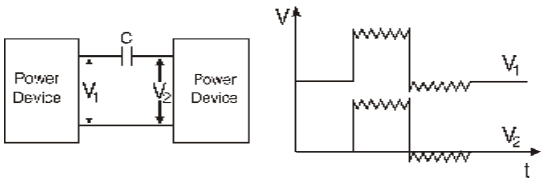
CAPACITOR DISCHARGE IGNITION
During the positive half cycle the capacitor is charged to full voltage. Then, during the negative half cycle energy stored in the capacitor is discharged through the ignition coil.

Good current carrying capability.
Good response for fast discharge.



Deki Range
For discharge current of 80 amps — CDI Capacitors (Metallised Polyester Film Capacitors).
For discharge current of 100 amps and above — CDI Capacitors (Metallised Polypropylene Film Capacitors).

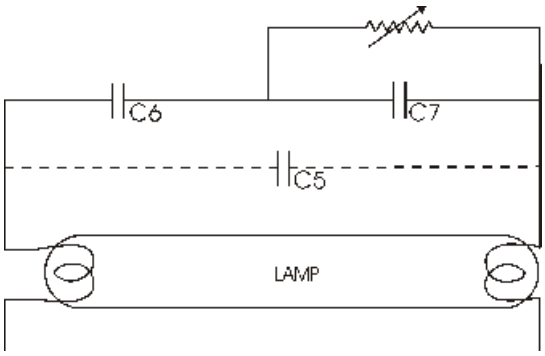
Guide to Film Capacitors (contd.)

Application / Function desired	Expected Capacitor Parameter	Circuit Diagram
PULSE COUPLING Coupling/decoupling of high energy, fast rise pulses	Good pulse and AC characteristics. High voltage proof. Low dissipation factor.	

Deki Range
For Low Power Signal
Good dv/dt
For C ≤ 0.047 µf — Plain Polypropylene Film Capacitors.
For C > 0.2 µf — AC & Pulse Metallised Polypropylene Film Capacitors (MPP Series).
For High Power Signal
Good dv/dt and V_{RMS} of 700V AC — AC & Pulse Metallised Polypropylene Film Capacitors (MPP / MPP Series).
Unlimited dv/dt and V_{RMS} of 500V AC — AC & Pulse Metallised Polypropylene Film Capacitors (PP / MPP Series).

LAMP CIRCUIT
For pre-heating and striking application.

Good pulse and AC characteristics.
Low dissipation factor.
High temperature rating.

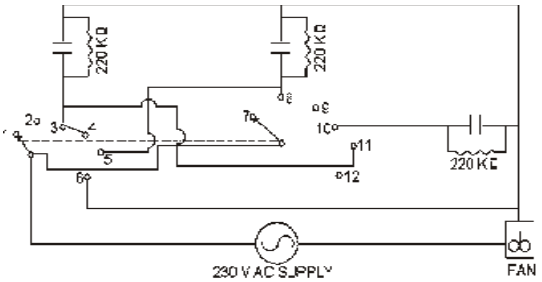


Deki Range
For C5 - 0.0022 µf - 0.0068 µf (1000V DC - 1600V DC).
C6 - 0.0047 µf - 0.01 µf (630V DC - 1600V DC).
C7 - 0.0018 µf - 0.0068 µf (630V DC - 1600V DC).

Recommended Capacitors
PP Film Foil Inductive type for temp ≤ 85° C
PET Film Foil Inductive for high temperature with low voltage and low frequency, say 40 kHz and 60 V_{RMS}.
PEP Film Foil Inductive for high temperature upto 110° C with high voltage and high frequency say 40 kHz and 110 V_{RMS}.

FAN REGULATOR
For speed control of fan.

Good self healing properties.
Smaller in size.
Higher break down voltage.
Flame proof.



Deki Range
1 µf - 4.3 µf — Metallised polyester Film Capacitors (for Switch type)
1 µf - 3.3 µf — Metallised polyester Film Capacitors and Metallised Polypropylene Capacitors (for Socket type)
1 µf - 4.3 µf — Metallised polyester Film Capacitors and Metallised Polypropylene Capacitors (Switch type - Flameproof ULTIMA Range)
1 µf - 4.3 µf — Metallised polyester Film Capacitors and Metallised Polypropylene Capacitors (Socket type- Flameproof ULTIMA Range)

FILM CAPACITOR BASICS

General information

Plastic film capacitors are generally subdivided into film/foil capacitors and metallised film capacitors. The following description gives brief information about their technical features.

Film/foil capacitors

Film/foil capacitors generally consist of two aluminium foil electrodes with plastic film material used as dielectric.

In order to guarantee the necessary safety and reliability of a capacitor it is essential to use a sufficient film thickness.

Typical advantages that relatively large film/foil capacitors have over smaller metallised capacitors is their higher insulation resistance, their better capacitance stability and their good current carrying capability. High voltage and good pulse handling capability are additional features of these capacitors. Lead connections are made by means of welding.

Metallised film capacitors

In contrast to film/foil capacitors, where aluminium foils are used as electrodes, the electrodes of metallised film capacitors consist of a thin metal layer (0.03 micron thickness, approx.) which is vacuum deposited on the dielectric film. The connection of metallised capacitors is accomplished by means of a metal spraying process and by welding the leads on to the sprayed ends.

The main advantages of metallised capacitors are,

1) relatively small dimensions, a result of vacuum deposited electrodes, and,
2) self healing property.

Owing to the self healing property, relatively thinner films can be used for metallised capacitors than film/foil capacitors.

DC Capacitor

A capacitor designed essentially for application with direct voltage.

AC Capacitor

A capacitor designed essentially for application with alternating voltage.

Climatic category

Indicates the conditions applicable to climatic testing of capacitors as per the relevant standards. It is indicated as a combination of test temperatures for cold proof, heat proof and test days for damp proof (steady state) which the capacitor will withstand.

The category = XX / YYY / ZZ

XX = Test temperature for cold proof

YYY = Test temperature for heat proof

ZZ = Test days applicable

Category temperature range

Denotes the range of ambient temperature for which the capacitor has been designed to operate continuously. This is defined by the temperature limits of the appropriate category.

Rated temperature

The maximum ambient temperature at which the rated voltage may be continuously applied.

Lower category temperature

The minimum ambient temperature for which a capacitor has been designed to operate continuously.

Upper category temperature

The maximum ambient temperature for which a capacitor has been designed to operate continuously.

Self healing

The process by which the electrical properties of the capacitor, after a local breakdown of the dielectric, are rapidly restored to those before the breakdown.

Rated voltage

The maximum direct voltage or the maximum r.m.s. alternating voltage or peak value of pulse voltage which may be applied continuously to a capacitor at any temperature between the lower category temperature and the rated temperature.

FILM CAPACITOR BASICS

Rated capacitance

The capacitance value for which the capacitor has been designed and which is usually indicated upon it.

The capacitance shall be measured at one of the following frequencies unless otherwise prescribed by the relevant specification:

$C_R < 1$ nf : 10 kHz

1 nf < CR ≤ 10 µf : 1 kHz

$C_R > 10$ µf : 50 Hz

The tolerance on all frequencies for measuring purposes shall not exceed ±20%.

The measuring voltage shall not exceed 3% of rated voltage or 5 V_{RMS} (whichever is lower) unless otherwise prescribed in the relevant specification.

Insulation resistance

The insulation resistance is the quotient of an applied DC voltage to the current flowing after a specified time.

$$R\ (\text{insulation}) = \frac{V\ (\text{applied voltage})}{I\ (\text{leakage current})}$$

The time constant (S) = M Ω × Mf

= Insulation Resistance × Rated Capacitance

Before this measurement is made, the capacitors shall be fully discharged. The insulation resistance shall be measured, at the following measuring voltage, between the points specified.

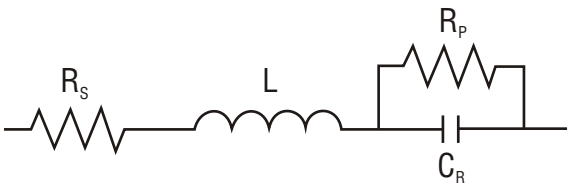
Voltage rating of capacitor	Measuring voltage
UR < 10 V	UR ± 10%
10V ≤ UR < 100V	10 ± 1V
100V ≤ UR < 500V	100 ± 15V
500V ≤ UR	500 ± 50V

The insulation resistance shall be measured after the voltage has been applied for 1 min ± 5 sec.

Tangent of loss angle (tan δ)

The dissipation factor or tangent of loss angle is the power loss of the capacitor divided by the reactive power of the capacitor at a sinusoidal voltage of specified frequency.

Equivalent circuit of capacitor



tan δ = ϖCR = 2 × π × f × C × R where R is the Equivalent Series Resistance.

The tangent at loss angle shall be measured under the same conditions as those given for the measurement of capacitance at one or more frequencies as prescribed in the detailed specifications.

The measuring method shall be such that the error does not exceed 10% of the specified value or 0.0001, whichever is higher.

Quality factor

The reciprocal of tangent of loss angle

$$Q = \frac{1}{\varpi CR}$$

Equivalent series resistance (ESR)

The ESR is the resistive part of the equivalent series circuit and is temperature and frequency dependent. The ESR can be calculated from the dissipation factor (tan δ) as follows:

ESR = tan δ / ϖC

Power dissipation

The power dissipated by a capacitor is a function of the voltage across or the current (I) through the equivalent series resistance ESR.

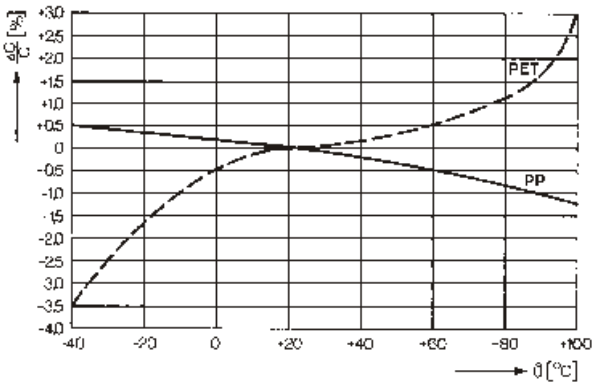
$P = v \times C \times \tan\delta \times U^2$

$P = 2 \times \pi \times f \times C \times \tan\delta \times U^2$

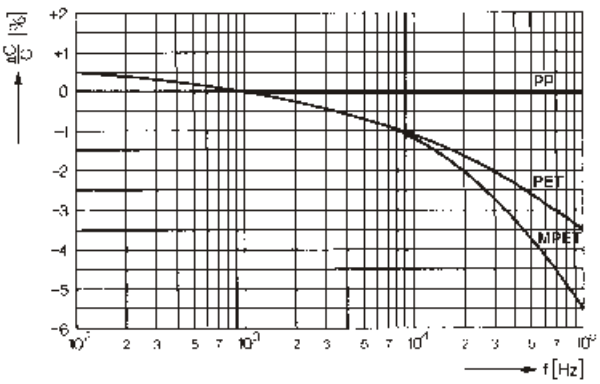
where f = frequency, tan δ = maximum value specified, U = rated voltage

TYPICAL PARAMETERS

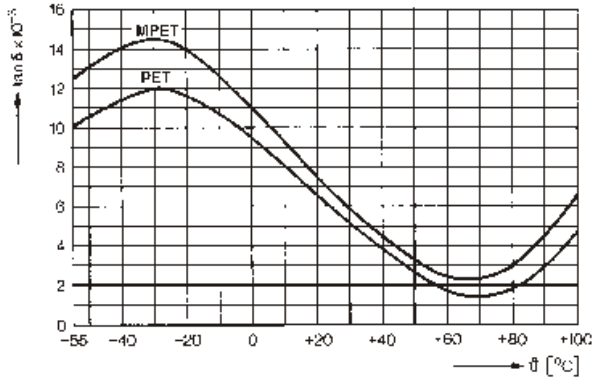
Capacitance change ΔC/C versus Temperature θ



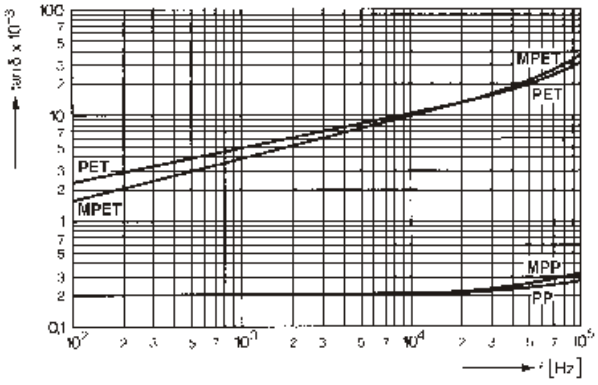
Capacitance change ΔC/C versus Frequency f



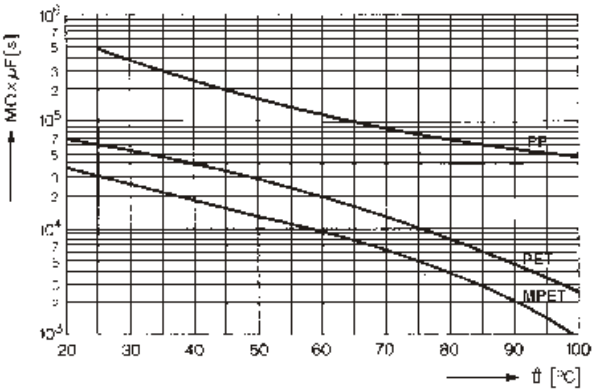
Dissipation factor tan δ versus Temperature θ
(measured at 1 kHz)



Dissipation factor tan δ versus Frequency f



Time constant τ versus Temperature θ



Legend

PET: Plain polyester film / foil capacitor
PP: Plain polypropylene film / foil capacitor
MPET: Metallised polyester film capacitor
MPP: Metallised polypropylene film capacitor

STORAGE AND OPERATING CONDITIONS OF CAPACITORS

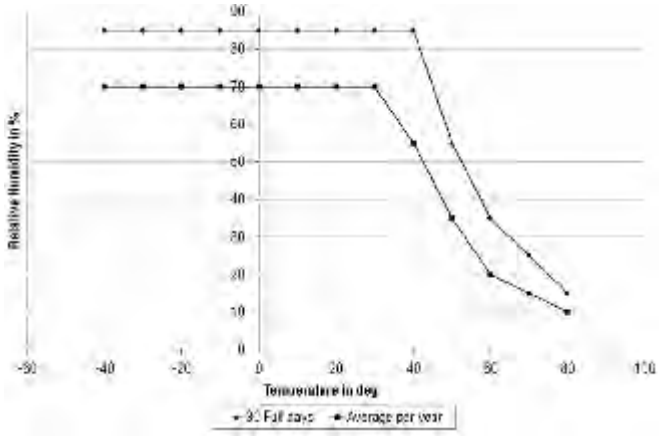
Storage Time: ≤2 years from the date of marking

Storage Time: -40 to + 80° C

Storage Humidity: ≤70% (Average per year)

≤85% (For 30 full days randomly distributed throughout the year without condensation).

The levels of humidity must be reduced according to the ambient temperature as per the graph.



Special Operating conditions (Humid Environment):

If the capacitors are used for a long time in a humid ambient, the capacitor might absorb humidity and oxidize the metal electrodes causing the failure of the capacitor.

In case of AC application/ X2 application, high humidity would increase the corona effect which will cause a drop in the capacitance value and increase in the dissipation factor.

The normal operating conditions should be:

Working Temp in ° C	Rel. Humidity in %
25° C	70% (average for a year)
30° C	90% (2 weeks continuously)

If the operating conditions differ from the above, please contact for our Technical Assistance.

PLAIN POLYESTER FILM CAPACITORS
(Inductive)

MAIN APPLICATION: Blocking, bypassing, filtering, coupling and decoupling, interference suppression in low voltage application, low pulse application

CONSTRUCTION: Film/foil inductive type construction with aluminum foil as electrode and polyester (PET) film as dielectric, coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/56

MAX. OPERATING TEMPERATURE: 125° C
Between 85° C and 125° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-11

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: Between terminals: 2 times of rated voltage for 2 seconds

TAN δ: 0.8% (maximum) at 1 kHz

LIFE TEST CONDITIONS:
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C 1000 hours
Category voltage is 80% of rated voltage

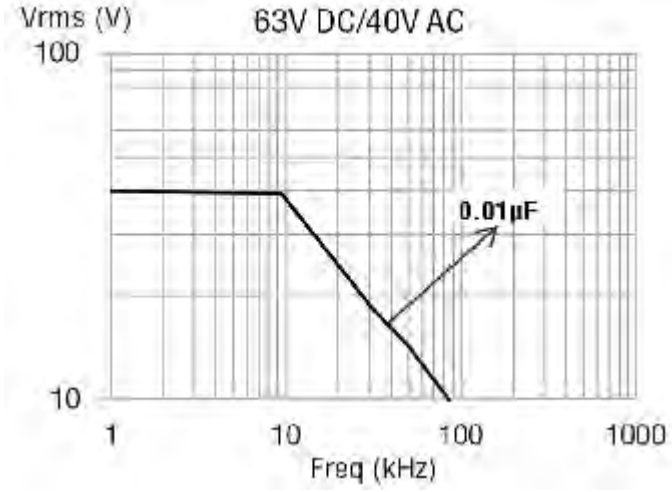
Criteria after the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.01 or 1.2 times the value measured before the test, whichever is higher
Insulation resistance: ≥ 50% of the initial value mentioned in IR chart

APPROVALS: Capacitors tested at ERTL (North) as per IEC 384-11

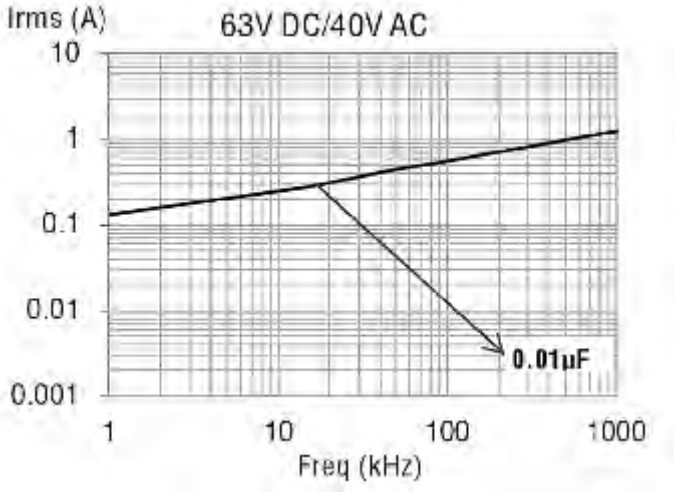
INSULATION RESISTANCE

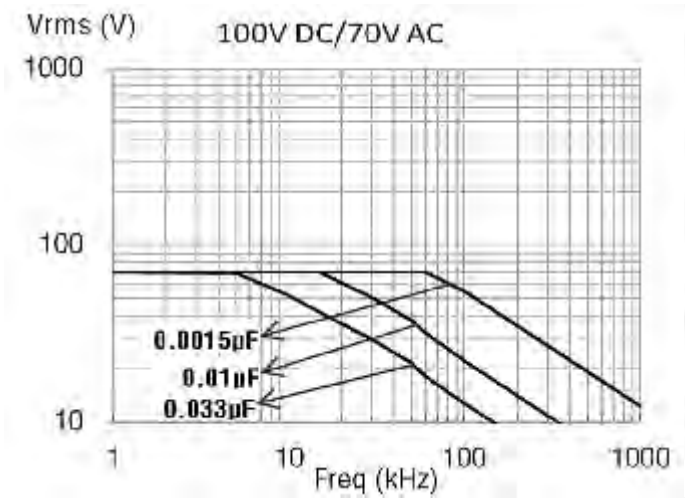
Minimum Insulation Resistance R_{IS}	V_R	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	≤ 100 V DC	30 GΩ	10000 s
at 25° C, relative humidity ≤ 70%	≥ 250 V DC	100 GΩ	10000 s

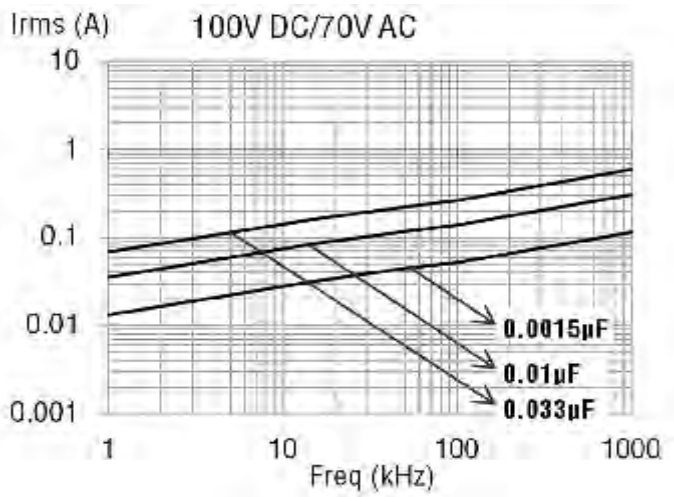
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

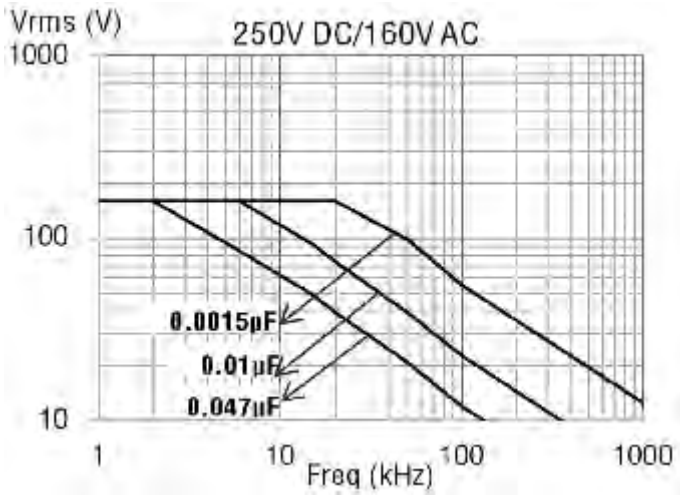


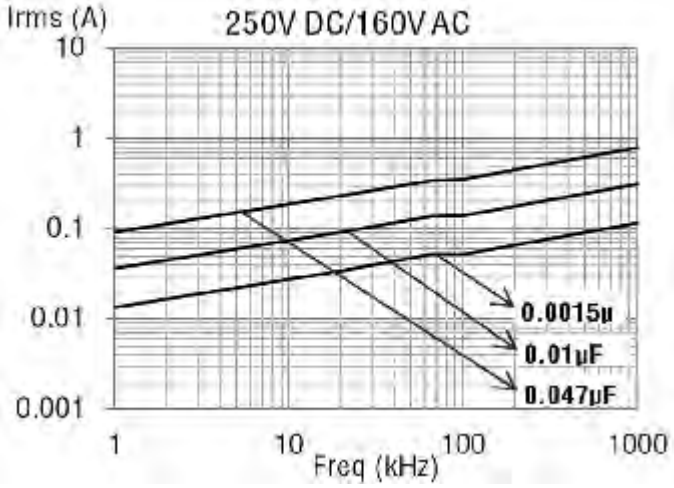
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

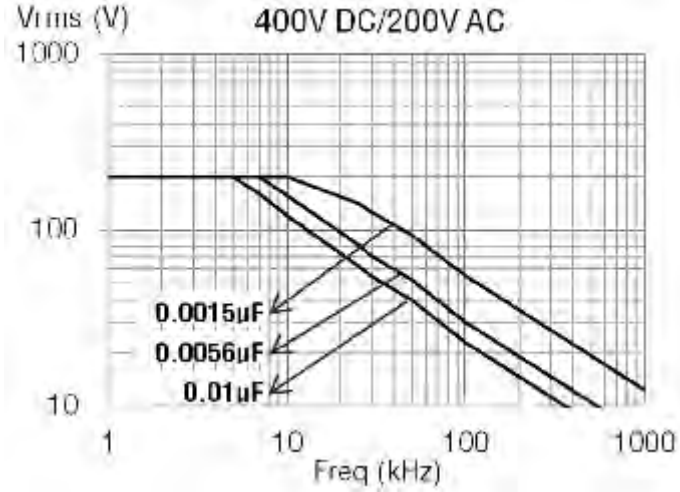


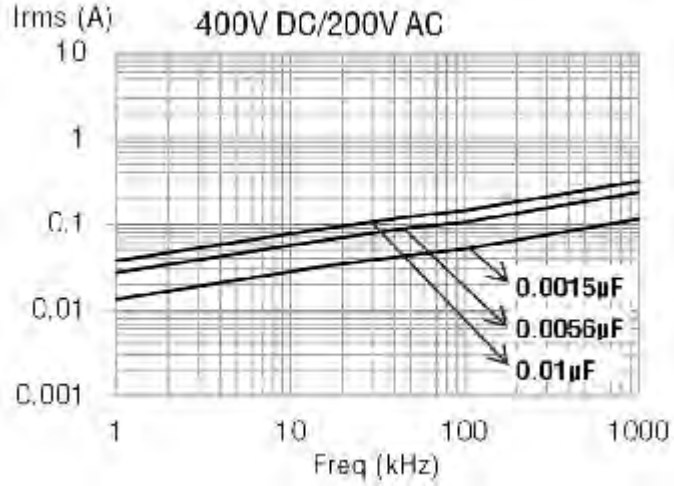


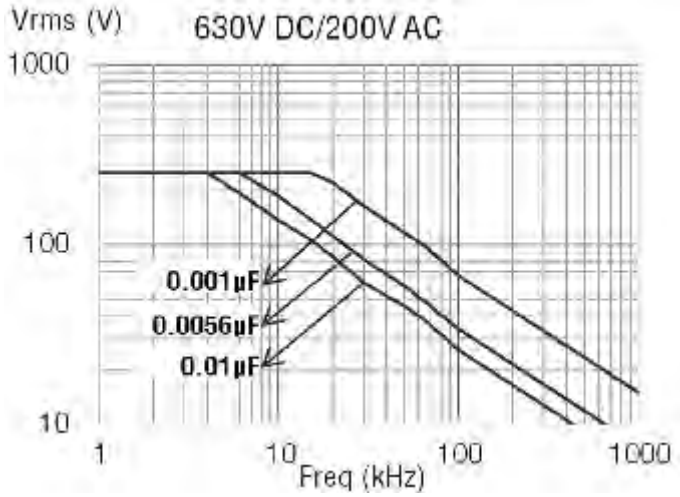


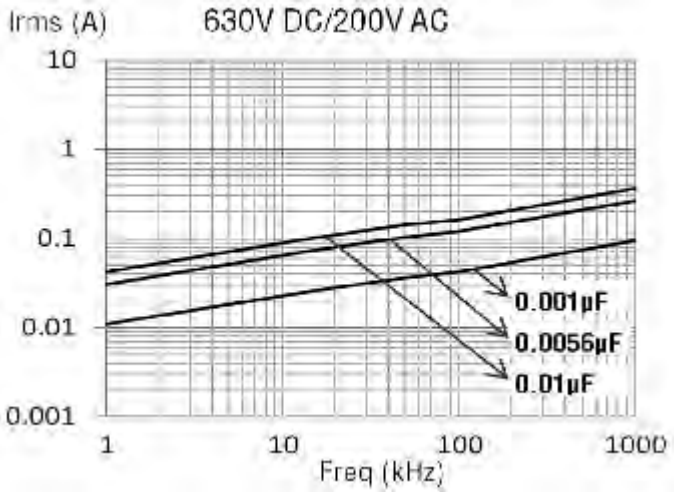

Vrms (V)
250V DC/160V AC
1000
100
10
0.0015μF
0.01μF
0.047μF
1
10
100
1000
Freq (kHz)

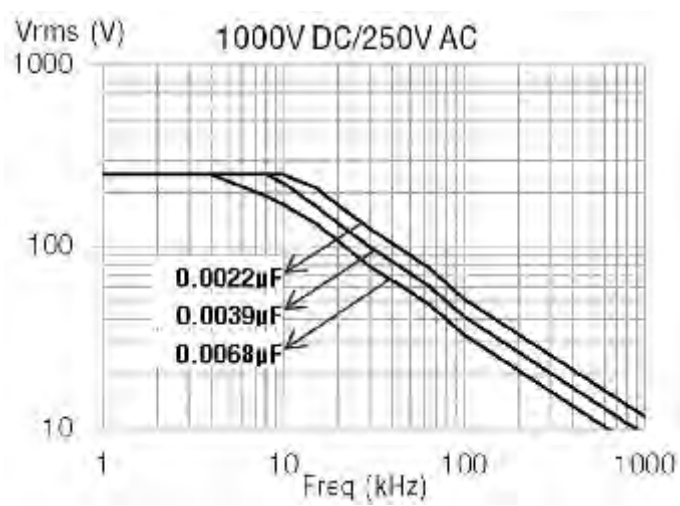

Irms (A)
250V DC/160V AC
10
1
0.1
0.01
0.001
0.0015μ
0.01μF
0.047μF
1
10
100
1000
Freq (kHz)

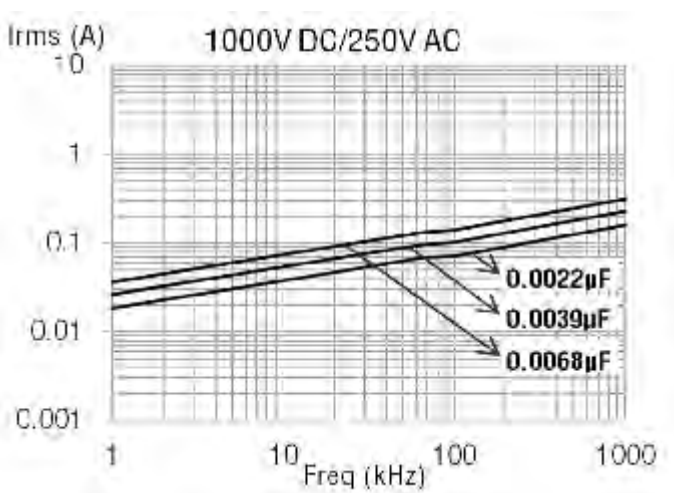

Vrms (V)
400V DC/200V AC
1000
100
10
0.0015μF
0.0056μF
0.01μF
1
10
100
1000
Freq (kHz)


Irms (A)
400V DC/200V AC
10
1
0.1
0.01
0.001
0.0015μF
0.0056μF
0.01μF
1
10
100
1000
Freq (kHz)

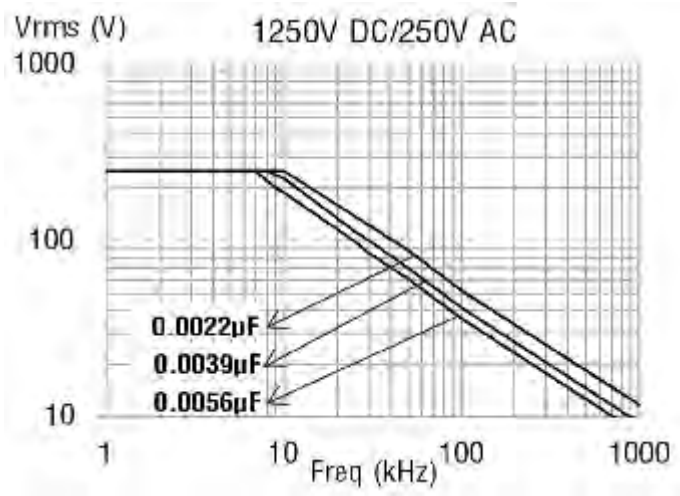

Vrms (V)
630V DC/200V AC
1000
100
10
0.001μF
0.0056μF
0.01μF
1
10
100
1000
Freq (kHz)

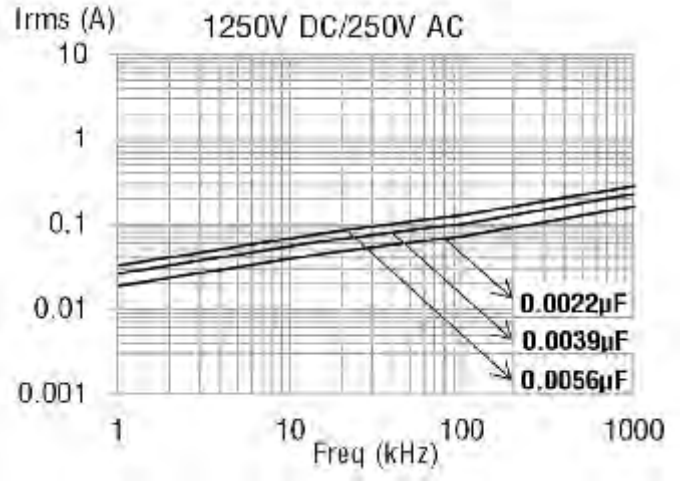

Irms (A)
630V DC/200V AC
10
1
0.1
0.01
0.001
0.001μF
0.0056μF
0.01μF
1
10
100
1000
Freq (kHz)

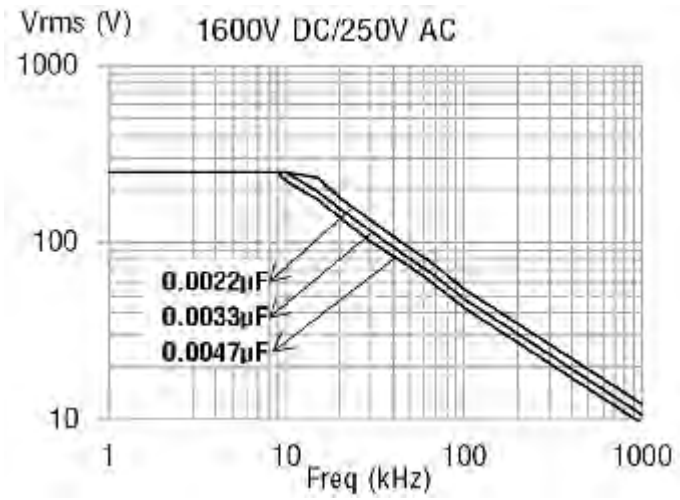

Vrms (V)
1000V DC/250V AC
1000
100
10
0.0022μF
0.0039μF
0.0068μF
1
10
100
1000
Freq (kHz)

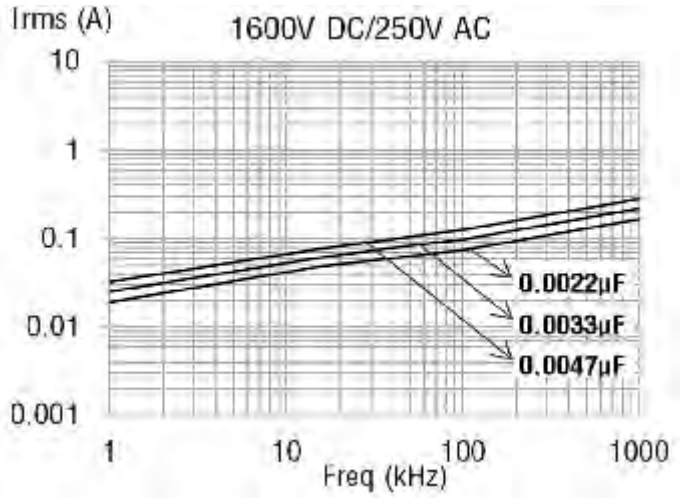

Irms (A)
1000V DC/250V AC
10
1
0.1
0.01
0.001
0.0022μF
0.0039μF
0.0068μF
1
10
100
1000
Freq (kHz)

PLAIN POLYESTER FILM CAPACITORS
(Inductive)

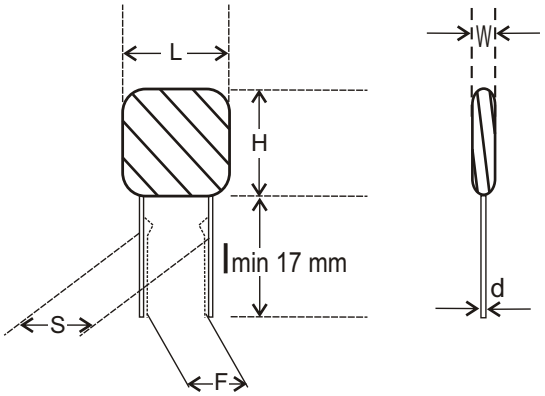








NOTE: The derating curves are based on the actual observed values



DEKI
Film Capacitor Solutions

PLAIN POLYESTER FILM CAPACITORS (Inductive)

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
63V DC	0.1000	6.0	14.0	11.0	0.5	7.0	5.0	10000	0.76	01 104 +1J*^	2000	2000
100V DC	0.0010	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.22	01 102 +2A*^	5000	2000
	0.0015	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.22	01 152 +2A*^	5000	2000
	0.0022	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.28	01 222 +2A*^	5000	2000
	0.0033	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.32	01 332 +2A*^	5000	2000
	0.0047	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.25	01 472 +2A*^	5000	2000
	0.0068	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.25	01 682 +2A*^	5000	2000
	0.0091	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.28	01 912 +2A*^	5000	2000
	0.0100	4.0	11.5	7.5	0.5	4.0	5.0	10000	0.35	01 103 +2A*^	4500	2000
	0.0150	4.0	11.5	7.5	0.5	4.0	5.0	10000	0.35	01153 +2A*^	4500	2000
	0.0220	4.0	11.5	7.5	0.5	4.5	5.0	10000	0.35	01 223 +2A*^	4500	2000
	0.0330	5.0	13.0	7.5	0.5	5.0	5.0	10000	0.40	01 333 +2A*^	4000	2000
	0.0470	5.0	13.0	9.5	0.5	5.5	5.0	10000	0.45	01473 +2A*^	2500	2000
	0.0560	5.0	13.0	10.0	0.5	6.0	5.0	10000	0.52	01 563 +2A*^	2500	2000
	0.0680	5.5	14.0	10.0	0.5	7.0	5.0	10000	0.60	01 683 +2A*^	2000	2000
	0.0820	6.0	14.0	11.0	0.5	7.0	5.0	10000	0.70	01 823 +2A*^	2000	2000
	0.1000	6.0	14.0	11.0	0.5	7.0	5.0	10000	0.75	01 104 +2A*^	2000	2000
	0.1500	6.5	15.0	12.0	0.5	7.5	5.0	10000	1.10	01 154 +2A*^	1500	1000
	0.2200	6.5	15.0	12.0	0.5	8.5	-	10000	1.56	01 224 +2A*^	-	1000
	0.4700	8.5	19.0	16.0	0.5	11.5	-	10000	2.88	01 474 +2A*^	-	400
250V DC	0.0010	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.28	01102 +2E*^	5000	2000
	0.0015	3.5	12.0	6.0	0.5	4.0	5.0	10000	0.30	01 152 +2E*^	5000	2000
	0.0022	3.5	12.0	6.0	0.5	4.0	5.0	10000	0.28	01 222 +2E*^	5000	2000
	0.0027	3.5	12.0	6.5	0.5	4.0	5.0	10000	0.32	01 272 +2E*^	5000	2000
	0.0033	3.5	12.0	6.5	0.5	4.0	5.0	10000	0.28	01 332 +2E*^	5000	2000
	0.0047	3.5	12.0	6.0	0.5	4.0	5.0	10000	0.32	01 472 +2E*^	5000	2000
	0.0100	4.0	13.0	7.5	0.5	5.0	5.0	10000	0.35	01 103 +2E*^	2500	2000
	0.0150	4.5	13.0	8.0	0.5	5.5	5.0	10000	0.42	01 153 +2E*^	2500	2000
	0.0220	4.5	13.0	9.0	0.5	6.0	5.0	10000	0.45	01 223 +2E*^	2500	2000
	0.0330	5.0	13.0	9.5	0.5	7.0	5.0	10000	0.64	01 333 +2E*^	2500	2000
	0.0470	6.0	14.0	11.0	0.5	7.0	7.5	10000	0.80	01 473 +2E*^	2000	2000
	0.0560	6.5	14.0	13.0	0.5	7.0	-	10000	0.90	01 563 +2E*^	-	2000
	0.1000	6.5	18.0	13.0	0.5	9.0	-	10000	1.30	01 104 +2E*^	-	1000
400V DC	0.0010	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.28	01 102 +2G*^	5000	2000
	0.0015	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.30	01 152 +2G*^	5000	2000
	0.0022	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.30	01 222 +2G*^	5000	2000
	0.0033	4.0	11.5	6.5	0.5	4.0	5.0	10000	0.35	01 332 +2G*^	5000	2000
	0.0047	4.0	11.5	7.0	0.5	5.0	5.0	10000	0.40	01 472 +2G*^	4500	2000
	0.0056	4.0	11.5	8.5	0.5	5.5	5.0	10000	0.45	01 562 +2G*^	4000	2000
	0.0100	4.5	12.0	8.5	0.5	6.5	5.0	10000	0.65	01 103 +2G*^	4000	2000
	0.0150	5.0	13.0	9.5	0.5	7.0	5.0	10000	0.62	01 153 +2G*^	2000	2000
	0.0220	5.5	14.0	10.0	0.5	7.0	5.0	10000	0.70	01 223 +2G*^	2000	2000
	0.0330	6.5	15.0	11.0	0.5	7.0	7.5	10000	0.95	01 333 +2G*^	2000	2000
	0.0390	6.5	15.0	12.0	0.5	7.0	-	10000	0.98	01 393 +2G^	-	1000
	0.0470	8.0	15.0	12.0	0.5	7.0	-	10000	1.00	01 473 +2G*^	-	1000
	0.0560	8.0	15.0	10.0	0.5	7.5	-	10000	1.30	01 563 +2G*^	-	1000
	0.1000	9.0	18.0	15.0	0.5	11.0	-	10000	2.16	01 104 +2G*^	-	400
630V DC	0.0010	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.28	01 102 +2J*^	5000	2000
	0.0015	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.30	01 152 +2J*^	5000	2000
	0.0022	3.5	11.5	6.5	0.5	4.0	5.0	10000	0.32	01 222 +2J*^	5000	2000
	0.0033	4.5	15.0	8.5	0.5	5.0	5.0	10000	0.45	01 332 +2J*^	4000	2000
	0.0047	4.5	15.0	8.5	0.5	5.0	5.0	10000	0.50	01 472 +2J*^	4000	2000
	0.0056	4.5	15.0	8.5	0.5	5.0	5.0	10000	0.52	01 562 +2J*^	4000	2000
	0.0068	5.0	15.0	9.0	0.5	5.5	5.0	10000	0.55	01 682 +2J*^	2000	2000
	0.0091	5.0	15.0	9.5	0.5	6.5	5.0	10000	0.55	01 912 +2J*^	2000	2000
	0.0100	5.5	15.0	10.0	0.5	7.5	7.5	10000	0.75	01 103 +2J*^	2000	2000
	0.0150	7.0	15.0	11.0	0.5	7.5	-	10000	0.80	01 153 +2J*^	-	2000
	0.0220	7.6	15.0	13.0	0.5	8.5	-	10000	1.08	01 223 +2J*^	-	1000
	0.0330	8.0	15.0	13.0	0.5	8.5	-	10000	1.70	01 333 +2J*^	-	1000
1000V DC	0.0022	5.0	15.0	8.5	0.5	5.0	5.0	10000	0.48	01 222 +3A*^	4000	2000
	0.0027	5.0	15.0	9.0	0.5	5.0	5.0	10000	0.56	01 272 +3A*^	4000	2000
	0.0033	5.0	15.0	9.0	0.5	5.0	5.0	10000	0.62	01 332 +3A*^	4000	2000
	0.0039	6.0	15.0	10.0	0.5	5.0	5.0	10000	0.62	01 392 +3A*^	4000	2000
	0.0047	6.0	15.0	10.0	0.5	5.0	5.0	10000	0.72	01 472 +3A*^	4000	2000
	0.0056	6.5	15.0	10.5	0.5	5.0	5.0	10000	0.84	01 562 +3A*^	3000	2000
	0.0068	6.5	15.0	11.0	0.5	5.0	5.0	10000	0.84	01 682 +3A*^	3000	2000
1250V DC	0.0022	5.0	15.0	8.5	0.5	5.0	5.0	10000	0.48	01 222 +3B*^	3000	2000
	0.0027	5.5	15.0	9.0	0.5	5.0	5.0	10000	0.56	01 272 +3B*^	3000	2000
	0.0033	6.0	15.0	9.5	0.5	5.0	5.0	10000	0.65	01 332 +3B*^	2500	2000
	0.0039	6.5	15.0	9.5	0.5	5.0	5.0	10000	0.72	01 392 +3B*^	2500	2000
	0.0047	7.0	15.0	11.0	0.5	5.0	5.0	10000	0.84	01 472 +3B*^	1500	2000
	0.0056	7.0	15.0	11.0	0.5	5.0	5.0	10000	0.85	01 562 +3B*^	1500	2000
1600V DC	0.0022	6.0	17.0	10.0	0.5	5.0	5.0	10000	0.70	01 222 +3C*^	1500	2000
	0.0027	6.5	18.0	10.0	0.5	7.5	5.0	10000	0.75	01 272 +3C*^	1500	2000
	0.0033	7.0	19.0	10.0	0.5	5.0	5.0	10000	0.80	01 332 +3C*^	1500	2000
	0.0039	6.5	19.0	11.0	0.5	7.5	5.0	10000	1.00	01 392 +3C*^	1000	2000
	0.0047	7.5	20.0	12.0	0.5	7.5	5.0	10000	1.15	01 472 +3C*^	1000	2000

PLAIN POLYESTER FILM CAPACITORS
(Starter applications for Lighting)

MAIN APPLICATION: Suitable for radio interference suppression in starters for fluorescent lamps, compact fluorescent lamps and PL lamps

CONSTRUCTION: Film/foil inductive type construction with aluminum foil as electrode and polyester (PET) film as dielectric coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/21

APPLICABLE SPECIFICATION: IEC 384-11, IEC 68

CAPACITANCE VALUE: 0.0012, 0.0033, 0.0047 and 0.006 µf

CAPACITANCE TOLERANCE: ±10%, ±20%

RATED VOLTAGE (DC): 630 V

VOLTAGE PROOF: Between terminals: 2 times of rated voltage for 2 seconds

INSULATION RESISTANCE
Measured at 500 V DC after 1 minute 50,000 MΩ (Min. value)

DIELECTRIC STRENGTH:
At 1500V AC > 60 seconds (Flat radial type)

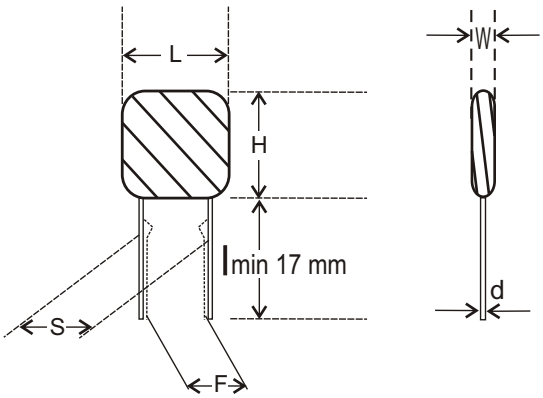
TAN δ: 0.8% (maximum) at 1 kHz

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C 1000 hours
Category voltage is 80% of rated voltage

After the test:
Δc/c: **≤ 5% of initial value.**
Change in Tan δ: ≤ 0.01 or 1.2 times the value measured before the test, whichever is higher
Insulation resistance: ≥ 50% of the value mentioned in IR chart

ENDURANCE TEST: Deactivated lamp test as per IEC 155 -1993

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
Epoxy Coated												
630V DC/	0.0033	4.5	15	8.5	0.5	5.0	5.0	10000	0.56	10 332 +2J*^	4500	2000
250V AC	0.0047	4.5	15	8.5	0.5	5.0	5.0	10000	0.64	10 472 +2J*^	4500	2000
	0.0068	4.5	15	8.5	0.5	5.5	5.0	10000	0.72	10 602 +2J*^	2000	2000
Only Impregnated												
630V DC/	0.0030	4.0	14	10.0	0.5	5.0	7.5	10000	0.50	11 302 +2J*^	4500	2000
250V AC	0.0033	4.5	15	8.5	0.5	5.0	5.0	10000	0.50	11 332 +2J*^	4500	2000
	0.0068	4.5	15	8.5	0.5	5.5	5.0	10000	0.65	11 602 +2J*^	2000	2000
1000V DC	0.0050	5.0	19	9.0	0.5	5.5	12.5	10000	0.68	11 502 +3A*^	4000	2000



DEKI
Film Capacitor Solutions

PLAIN POLYESTER FILM CAPACITORS
Film/Foil Non Inductive Type (Dip Type)

MAIN APPLICATION: Blocking, bypassing, filtering, coupling and decoupling, interference suppression in low voltage application, low pulse application

CONSTRUCTION: Film/foil inductive type construction with aluminum foil as electrode and polyester (PET) film as dielectric coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/56

MAX TEMP RATING: 125° C
Between 85° C and 125° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-11

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF
Between terminals: 2 times of rated voltage for 2 seconds

TAN δ: 0.8% (maximum) at 1 kHz

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C for 1000 hours

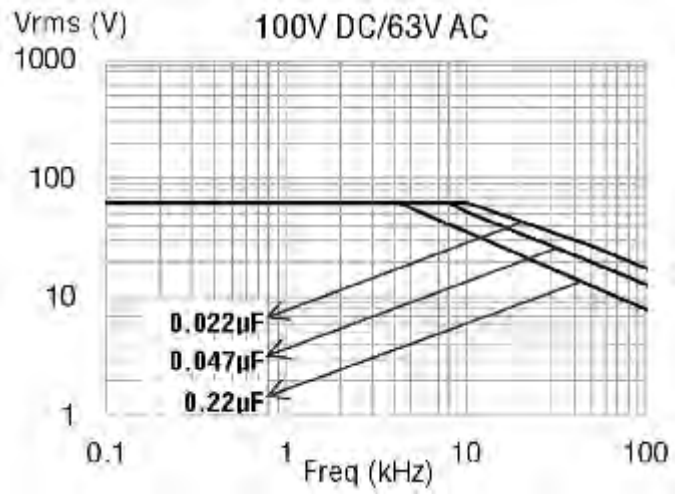
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.01 or 1.2 times the value measured before the test, whichever is higher
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Capacitors tested at ERTL (North) as per IEC 384-11

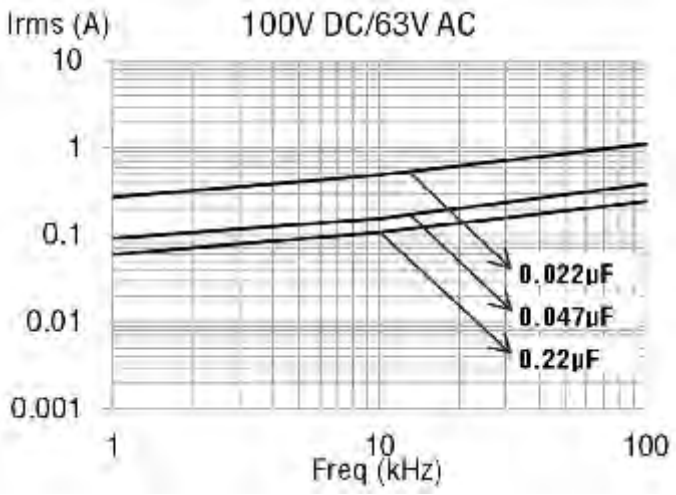
INSULATION RESISTANCE

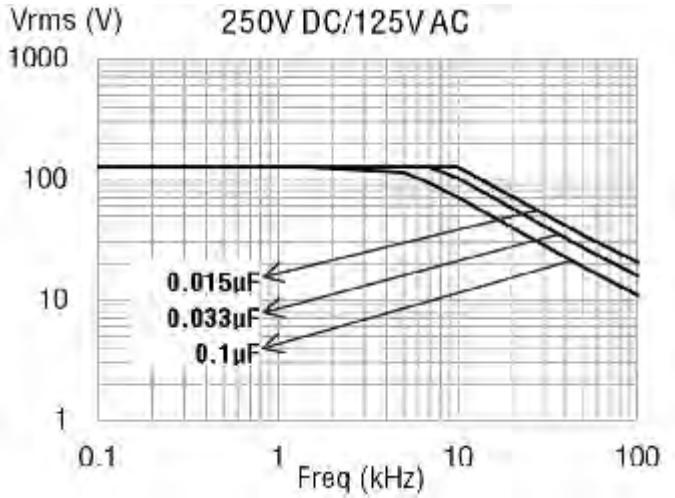
Minimum Insulation Resistance R_{IS}	V_R	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	≤ 100 V DC	30,000 M Ω	10000 s
at 25° C, relative humidity ≤ 70%	≥ 250 V DC	30,000 M Ω	10000 s

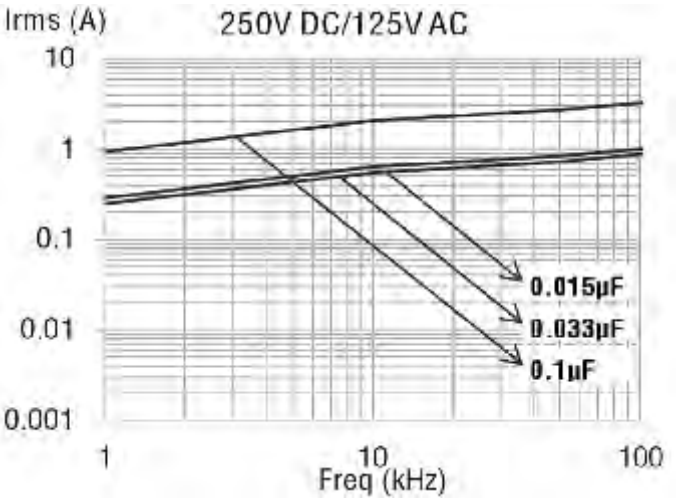
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



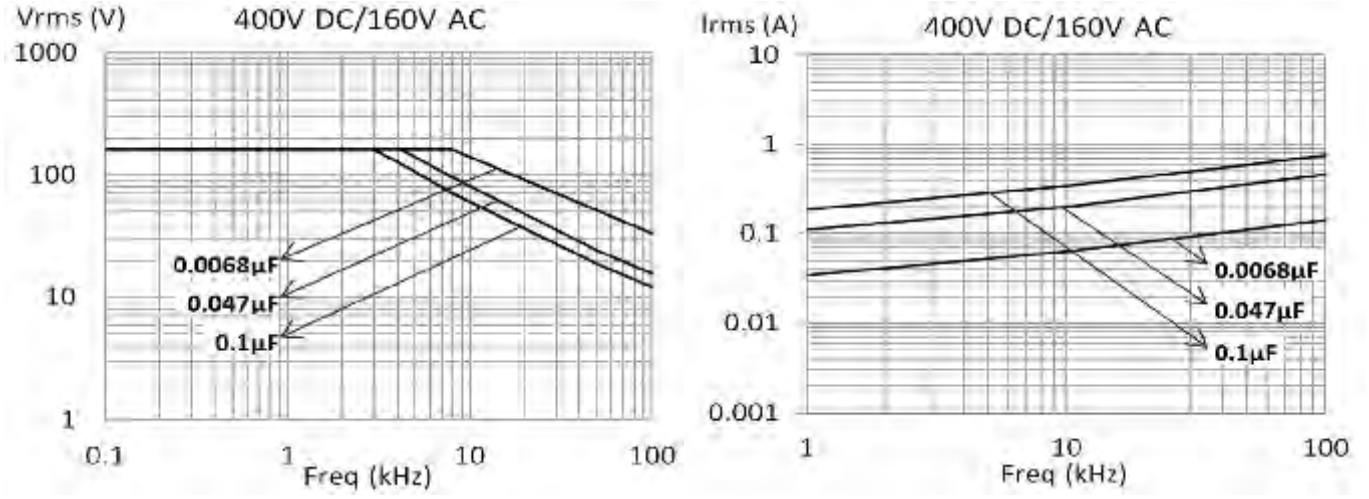
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)







PLAIN POLYESTER FILM CAPACITORS
Film/Foil Non Inductive Type (Dip Type)



NOTE: The derating curves are based on the actual observed values.

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
100V DC	0.0150	4.5	9.5	14.0	0.6	10.0	10	10000	0.4	25 153 +2A*^	-	2000
	0.0220	5.5	10.0	14.0	0.6	10.0	10	10000	0.6	25 223 +2A*^	-	2000
	0.0330	6.0	10.5	14.0	0.6	10.0	10	10000	0.7	25 333 +2A*^	-	2000
	0.0470	7.0	11.5	14.0	0.6	10.0	10	10000	0.9	25 473 +2A*^	-	2000
	0.1000	7.5	13.0	19.0	0.8	15.0	15	10000	1.7	25 104 +2A*^	-	2000
	0.2200	7.5	15.5	27.0	0.8	22.5	-	10000	3.2	25 224 +2A*^	-	1000
	0.3300	9.0	17.0	27.0	0.8	22.5	-	10000	4.4	25 334 +2A*^	-	500
	0.4700	11.0	19.0	27.0	0.8	22.5	-	10000	6.0	25 474 +2A*^	-	500
250V DC	0.0100	5.0	9.5	14.0	0.6	10.0	10	10000	0.5	25 103 +2E*^	-	2000
	0.0150	5.5	10.0	14.0	0.6	10.0	10	10000	0.6	25 153 +2E*^	-	2000
	0.0220	6.5	11.0	14.0	0.6	10.0	10	10000	0.8	25 223 +2E*^	-	2000
	0.0330	5.5	11.0	19.0	0.8	15.0	15	10000	1.1	25 333 +2E*^	-	2000
	0.0470	7.0	12.5	19.0	0.8	15.0	15	10000	1.4	25 473 +2E*^	-	2000
	0.1000	7.5	15.0	27.0	0.8	22.5	-	10000	2.7	25 104 +2E*^	-	1000
	0.2200	10.0	18.0	27.0	0.8	22.5	-	10000	4.5	25 224 +2E*^	-	500
	0.3300	10.5	19.5	32.0	0.8	27.5	-	10000	6.3	25 334 +2E*^	-	500
	0.4700	12.5	21.5	32.0	0.8	27.5	-	10000	9.1	25 474 +2E*^	-	250
400V DC	0.0068	6.5	12.0	14.0	0.6	10.0	10	10000	0.5	25 682 +2G*^	-	2000
	0.0100	6.0	10.5	14.0	0.6	10.0	10	10000	0.7	25 103 +2G*^	-	2000
	0.0150	6.5	12.5	19.0	0.6	15.0	15	10000	0.9	25 153 +2G*^	-	2000
	0.0220	7.5	13.5	19.0	0.8	15.0	15	10000	1.2	25 223 +2G*^	-	2000
	0.0330	7.5	16.0	19.0	0.8	15.0	15	10000	1.6	25 333 +2G*^	-	2000
	0.0390	8.5	14.0	19.0	0.8	15.0	15	10000	1.8	25 393 +2G*^	-	2000
	0.0470	9.0	16.0	19.0	0.8	15.0	15	10000	2.1	25 473 +2G*^	-	1000
	0.1000	11.0	19.0	19.0	0.8	15.0	15	10000	3.8	25 104 +2G*^	-	500
630V DC	0.0047	6.0	10.5	14.0	0.6	10.0	10	10000	0.7	25 472 +2J*^	-	2000
	0.0068	7.0	11.5	14.0	0.6	10.0	10	10000	0.9	25 682 +2J*^	-	2000
	0.0100	6.5	13.0	19.0	0.8	15.0	10	10000	1.2	25 103 +2J*^	-	2000
	0.0150	7.5	13.0	19.0	0.8	15.0	15	10000	1.5	25 153 +2J*^	-	2000
	0.0220	7.5	14.5	19.0	0.8	15.0	15	10000	2.0	25 223 +2J*^	-	1000
	0.0330	7.5	15.5	27.0	0.8	22.5	-	10000	2.8	25 333 +2J*^	-	1000
	0.0470	9.0	17.0	27.0	0.8	22.5	-	10000	3.5	25 473 +2J*^	-	500
	0.1000	11.5	20.5	32.0	0.8	27.5	-	10000	6.2	25 104 +2J*^	-	500
1000V DC	0.0100	5.2	11.2	13.2	0.8	10.0	-	10000	0.6	31 103 +3A*^	-	500

Note: 100 - 630V DC in Dip Type and 1000V DC in Box Type

DEKI
Film Capacitor Solutions

INDUCTIVE SELF HEALING POLYESTER CAPACITORS
DTSH Capacitors

CONSTRUCTION: Film/foil inductive type internally series construction with aluminum foil as electrode and polyester (PET) film as dielectric and MPET film as connecting electrode, coated with flame retardant epoxy resin

CAPACITANCE RANGE: 0.001 µF to 0.01 µF

RATED VOLTAGES: 1250 VDC / 500 VAC, 1600 VDC / 500 VAC, 2000VDC /500 VAC

CAPACITANCE TOLERANCES: ±5%, ±10%

APPLICABLE SPECIFICATION: IEC 60384-2

VOLTAGE PROOF: 1.6 times the rated voltage for 2 sec

INSULATION RESISTANCE AT +20°C: > 30000 MΩ

OPERATING TEMPERATURE RANGE: -40°C to +125°C
Between 85° C and 125° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

RATED TEMPERATURE: 85°C

PITCH: 5 mm, 7.5 mm

CAPACITANCE TOLERANCES: ±5%, ±10%

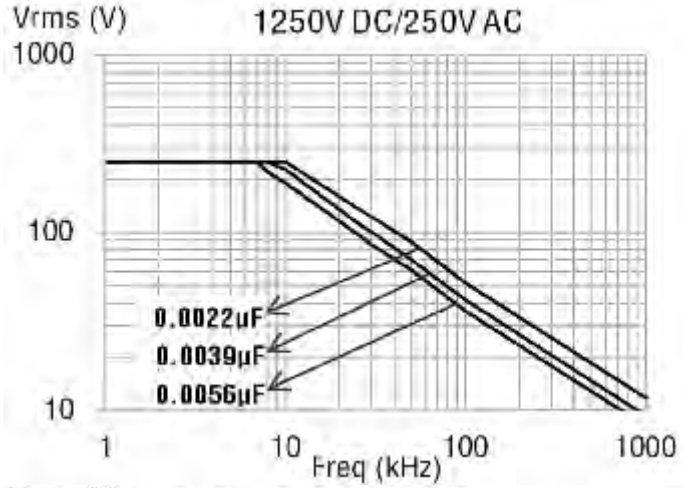
INSULATION RESISTANCE AT +20°C: > 30000 MΩ

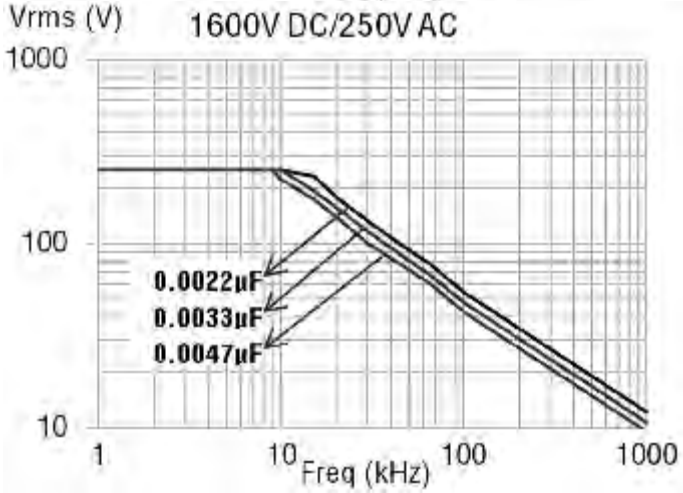
TAN δ: 0.8% at 1 kHz, 3% at 100 kHz

ENDURANCE:
Test conditions (DC)
Temperature: +85°C ±2°C
Test duration: 1000 h
Voltage applied: 1.25 × V_R (DC)
Performance
Capacitance change (Δc/c): ≤ 5%
DF change (Δtgδ): ≤ 0.01 or 1.2 times value measured before the test whichever is higher
Insulation resistance: ≥ 50% of initial limit

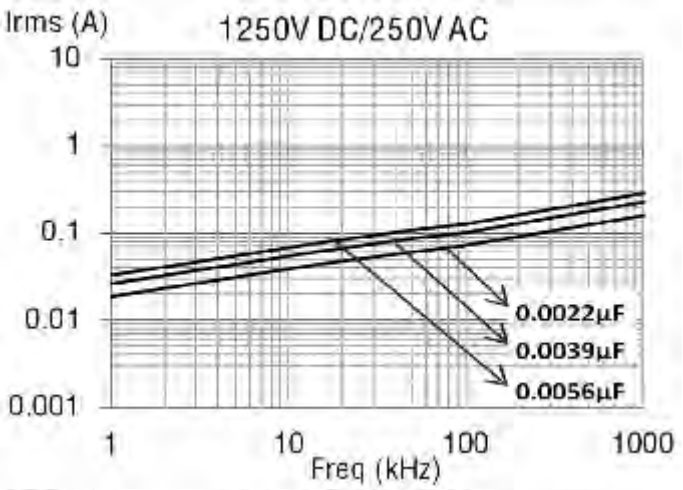
Test conditions (AC)
Temperature: +85°C ±2°C
Test duration: 1000 h
Voltage applied: 1.25 × V_R (AC)
Performance
Capacitance change (Δc/c): ≤ 5%
DF change (Δtgδ): ≤ 0.01 or 1.2 times value measured before the test whichever is higher
Insulation resistance: ≥ 50% of initial limit

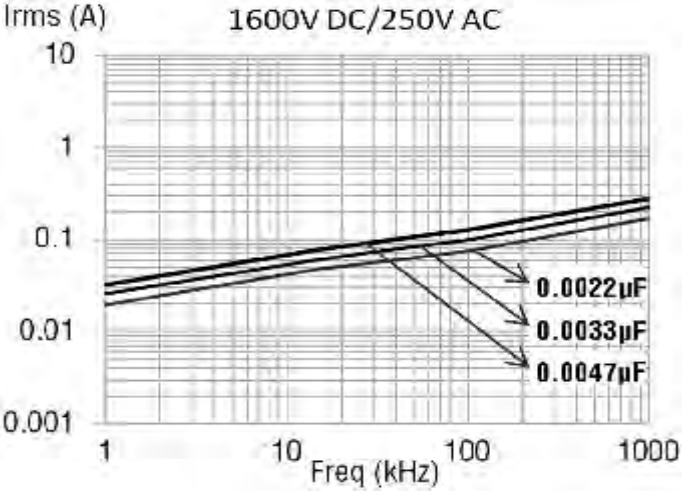
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)





Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



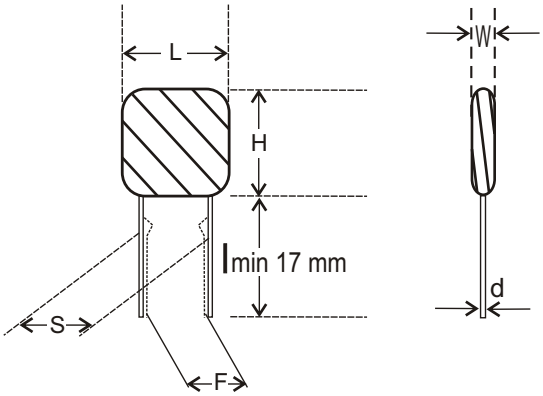


NOTE: The derating curves are based on the actual observed values.

INDUCTIVE SELF HEALING POLYESTER CAPACITORS - DTSH CAPACITORS

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
1250V DC	0.0033	4.5	17.5	8.0	0.5	5.5±0.5	10000	0.52	80	272 + 3B * ^	500
	0.0039	5.0	17.5	8.5	0.5	5.5±0.5	10000	0.64	80	332 + 3B * ^	500
	0.0047	5.5	17.5	8.5	0.5	5.5±0.5	10000	0.66	80	472 + 3B * ^	500
	0.0056	5.5	17.5	9.0	0.5	5.5±0.5	10000	0.69	80	562 + 3B * ^	500
	0.0062	6.0	17.5	9.0	0.5	5.5±0.5	10000	0.71	80	622 + 3B * ^	500
	0.0068	6.0	17.5	9.5	0.5	5.5±0.5	10000	0.78	80	682 + 3B * ^	500
	0.0082	6.0	17.5	10.0	0.5	5.5±0.5	10000	0.87	80	822 + 3B * ^	500
	0.0100	6.5	18.0	10.0	0.5	5.5±0.5	10000	0.97	80	103 + 3B * ^	500
1600V DC	0.0033	6.0	19.0	9.5	0.5	7.0±0.5	10000	0.65	80	332 + 3C * ^	500
	0.0039	6.0	19.0	9.5	0.5	7.5±0.5	10000	0.8	80	392 + 3C * ^	500
	0.0047	6.5	19.0	10.5	0.5	7.5±0.5	10000	0.83	80	472 + 3C * ^	500
	0.0056	7.0	19.0	11.0	0.5	7.5±0.5	10000	0.86	80	562 + 3C * ^	500
	0.0062	7.5	19.0	11.0	0.5	7.5±0.5	10000	0.89	80	622 + 3C * ^	500
	0.0068	8.0	19.0	11.5	0.5	7.5±0.5	10000	0.97	80	682 + 3C * ^	500
	0.0082	8.5	19.0	12.0	0.5	7.5±0.5	10000	1.08	80	822 + 3C * ^	500
	0.0100	9.0	19.0	12.5	0.5	7.5±0.5	10000	1.20	80	103 + 3C * ^	500



DEKI
Film Capacitor Solutions

METALLISED POLYESTER FILM CAPACITORS
(Sub-Miniature Box / Dip Type) 5.0 mm Pitch

MAIN APPLICATION: Blocking, bypassing, filtering, timing, coupling and decoupling, interference suppression in low voltage applications, low pulse operations

CONSTRUCTION (BOX TYPE): Low inductive cell of metallised polyester film encased in flame retardant box or coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 55/100/56

TEMPERATURE DERATING: Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-2

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%, ±20%

VOLTAGE PROOF: Between terminals: 1.6 times of rated voltage for 2 seconds.

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of rated voltage at 100° C

Criteria after the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.003, C_R ≤ 1 µF; ≤ 0.002, C_R> 1 µF
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Capacitors are tested at ERTL (North) as per IEC 384-2 and approved by CACT for telecom application

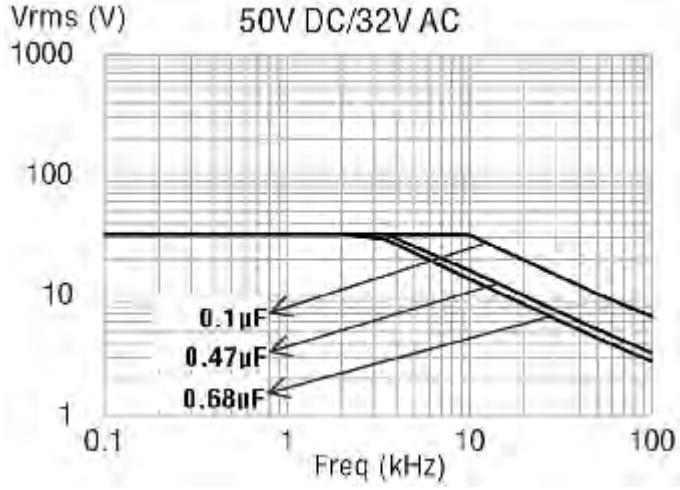
TAN δ (DISSIPATION FACTOR) AT 20°C

Frequency (kHz)	C_R < 0.1 µF	0.1 µF < C_R ≤ 1 µF	C_R >1 µF
At 1	≤ 0.8%	≤ 0.8%	1.0%
At 10	≤ 1.5%	≤ 1.5%	-
At 100	≤ 3.0%	≤ 3.0%	

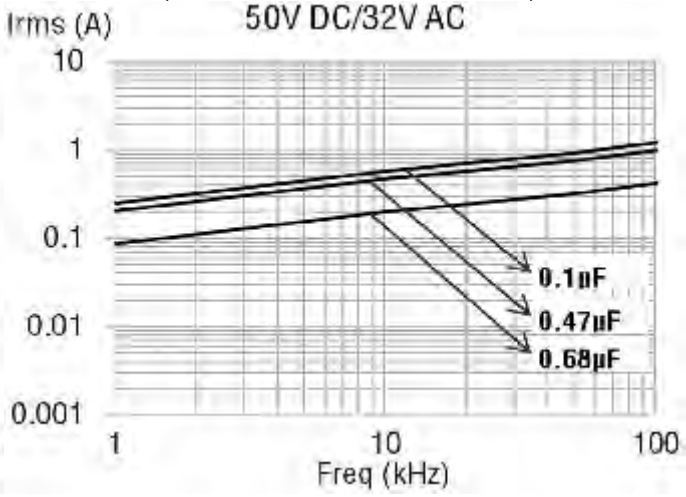
INSULATION RESISTANCE

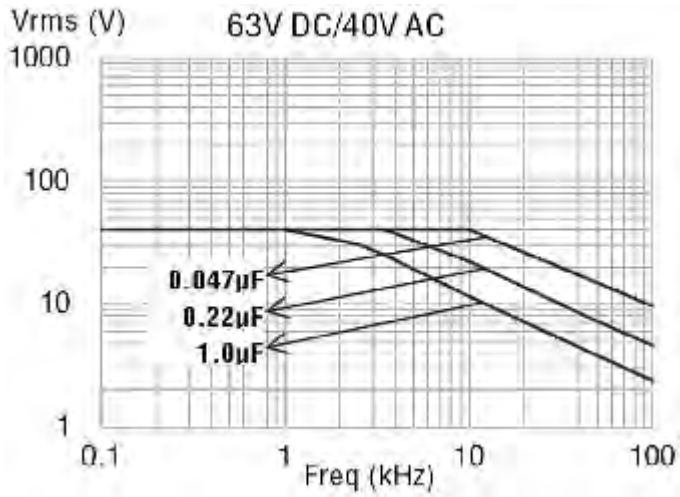
Minimum Insulation Resistance R_{IS}	V_R	C_R ≤ 0.33 µF	C_R > 0.33 µF
(or) time constant T = C_R × R_{IS}	≤ 100 V DC	3750 MΩ	1250 s
at 25° C, relative humidity ≤ 70%	> 100 V DC	7500 MΩ	2500 s

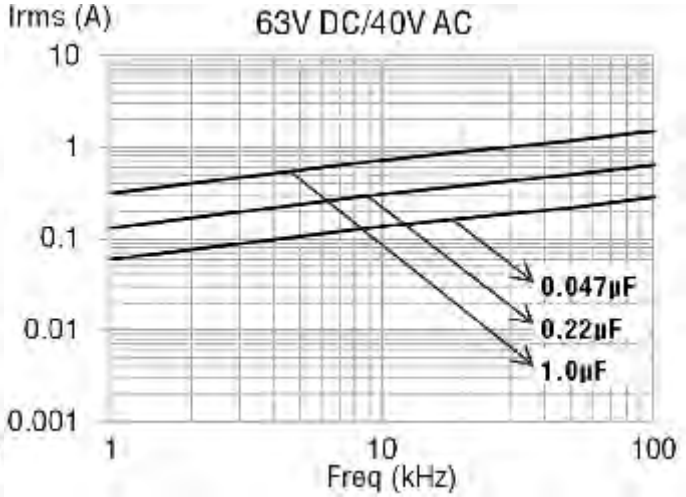
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤55° C)

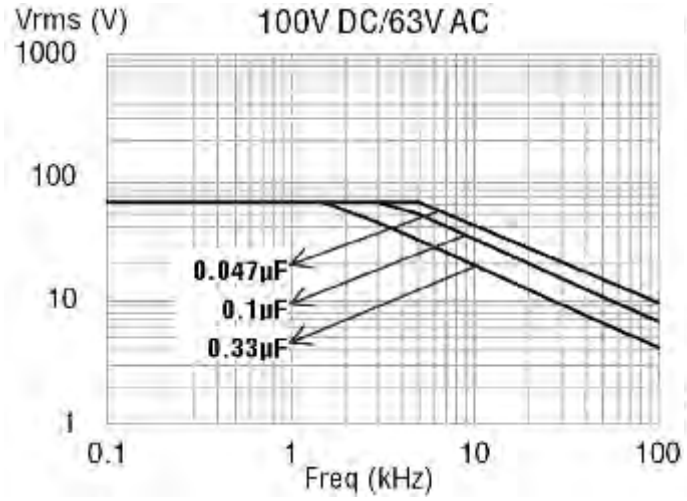


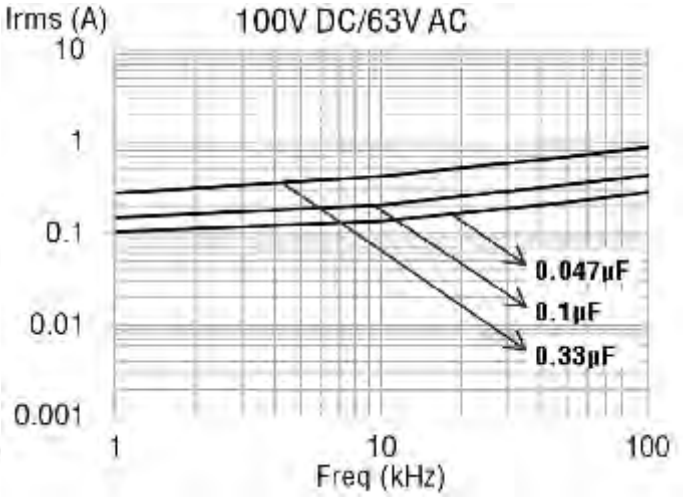
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

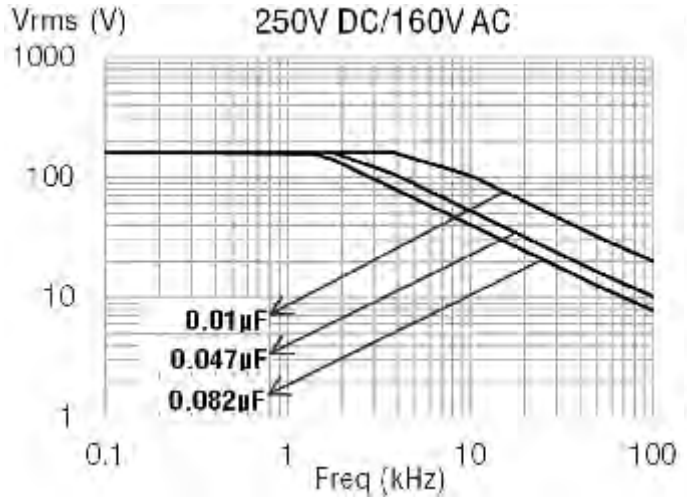


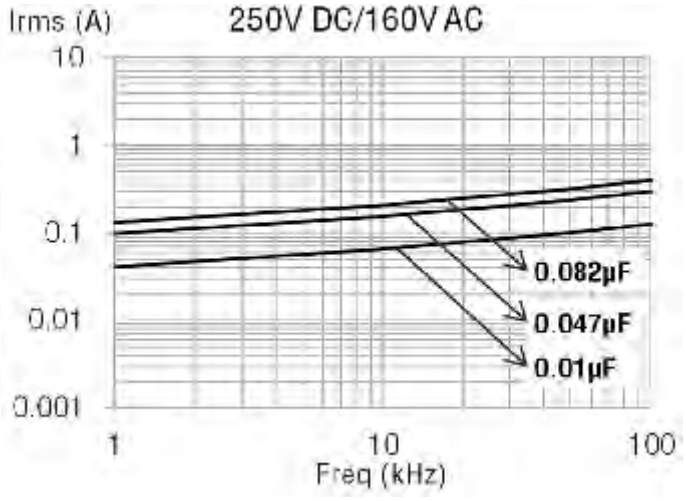


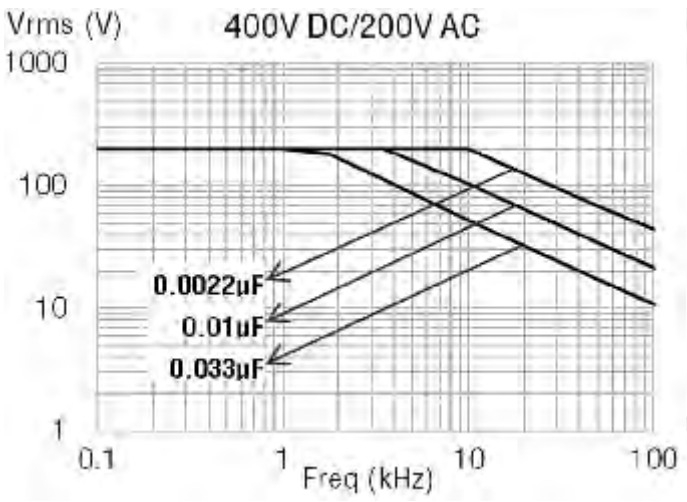


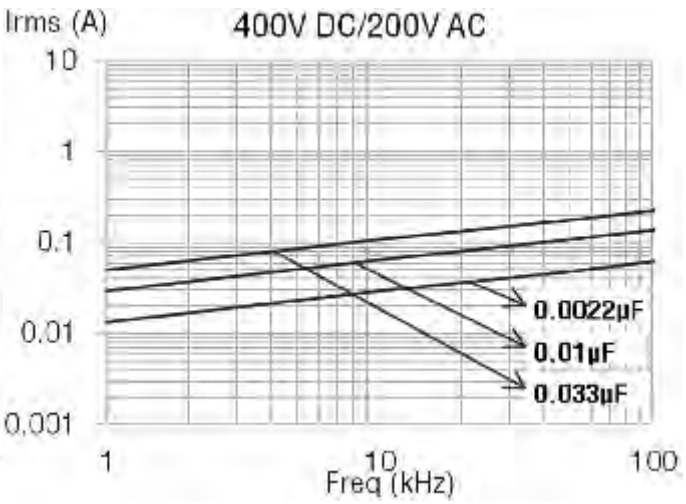












NOTE: The derating curves are based on the actual observed values.

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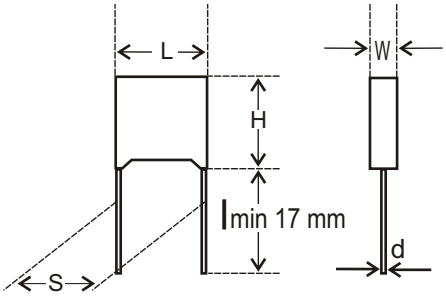
METALLISED POLYESTER FILM CAPACITORS (Sub-Miniature Box / Dip Type)

5.0 mm Pitch - Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
50V	0.1000	2.5	6.5	7.2	0.6	5	5	50	0.25	16 104 +1H*^	3000	4000
	0.1500	3.5	7.5	7.2	0.6	5	5	50	0.35	16 154 +1H*^	2000	4000
	0.2200	3.5	7.5	7.2	0.6	5	5	50	0.35	16 224 +1H*^	2000	4000
	0.3300	3.5	7.5	7.2	0.6	5	5	50	0.35	16 334 +1H*^	2000	4000
	0.4700	4.5	9.5	7.2	0.6	5	5	50	0.45	16 474 +1H*^	1500	2000
	0.6800	6.0	11.0	7.2	0.6	5	5	50	0.60	16 684 +1H*^	1500	2000
	1.0000	6.0	11.0	7.2	0.6	5	5	50	0.60	16 105 +1H*^	1000	4000
63V	0.0470	2.5	6.5	7.2	0.6	5	5	60	0.25	16 473 +1J*^	3000	4000
	0.0680	3.5	7.5	7.2	0.6	5	5	60	0.27	16 683 +1J*^	3000	4000
	0.1000	2.5	6.5	7.2	0.6	5	5	60	0.25	16 104 +1J*^	3000	4000
	0.1500	3.5	7.5	7.2	0.6	5	5	60	0.35	16 154 +1J*^	2000	4000
	0.2200	3.5	7.5	7.2	0.6	5	5	60	0.37	16 224 +1J*^	2000	4000
	0.3300	4.5	9.5	7.2	0.6	5	5	60	0.52	16 334 +1J*^	1500	2000
	0.4700	6.0	11.0	7.2	0.6	5	5	60	0.60	16 474 +1J*^	1500	2000
	0.6800	6.0	11.0	7.2	0.6	5	5	60	0.60	16 684 +1J*^	1000	2000
	1.0000	6.0	11.0	7.2	0.6	5	5	60	0.75	16 105 +1J*^	1000	2000
100V	0.0010	2.5	6.5	7.2	0.6	5	5	110	0.25	16 102 +2A*^	3000	4000
	0.0015	2.5	6.5	7.2	0.6	5	5	110	0.25	16 152 +2A*^	3000	4000
	0.0022	2.5	6.5	7.2	0.6	5	5	110	0.25	16 222 +2A*^	3000	4000
	0.0033	2.5	6.5	7.2	0.6	5	5	110	0.25	16 332 +2A*^	3000	4000
	0.0047	2.7	6.7	7.4	0.6	5	5	110	0.30	16 472 +2A*^	2500	4000
	0.0068	3.0	6.5	7.2	0.6	5	5	110	0.30	16 682 +2A*^	2500	4000
	0.0100	2.7	6.7	7.4	0.6	5	5	110	0.28	16 103 +2A*^	2500	4000
	0.0150	3.0	6.5	7.2	0.6	5	5	110	0.25	16 153 +2A*^	2500	4000
	0.0220	3.0	6.5	7.2	0.6	5	5	110	0.25	16 223 +2A*^	2500	4000
	0.0330	3.7	7.7	7.4	0.6	5	5	110	0.35	16 333 +2A*^	2500	4000
	0.0470	2.7	6.7	7.4	0.6	5	5	110	0.35	16 473 +2A*^	2500	4000
	0.0680	3.5	7.5	7.2	0.6	5	5	110	0.35	16 683 +2A*^	2000	4000
	0.1000	3.7	7.7	7.4	0.6	5	5	110	0.35	16 104 +2A*^	2000	4000
	0.1500	4.7	9.7	7.4	0.6	5	5	110	0.45	16 154 +2A*^	1500	4000
	0.2200	5.0	10.0	7.2	0.6	5	5	110	0.60	16 224 +2A*^	1500	2000
	0.3300	6.0	11.0	7.2	0.6	5	5	110	0.60	16 334 +2A*^	1000	2000
250V	0.0010	2.5	6.5	7.2	0.6	5	5	320	0.35	16 102 +2E*^	3000	4000
	0.0015	2.5	6.5	7.2	0.6	5	5	320	0.35	16 152 +2E*^	3000	4000
	0.0022	2.5	6.5	7.2	0.6	5	5	320	0.35	16 222 +2E*^	3000	4000
	0.0033	2.5	6.5	7.2	0.6	5	5	320	0.35	16 332 +2E*^	3000	4000
	0.0047	2.5	6.5	7.2	0.6	5	5	320	0.35	16 472 +2E*^	3000	4000
	0.0068	3.0	6.5	7.2	0.6	5	5	320	0.35	16 682 +2E*^	2500	4000
	0.0100	2.7	6.7	7.4	0.6	5	5	320	0.35	16 103 +2E*^	2500	4000
	0.0150	3.0	6.5	7.2	0.6	5	5	320	0.35	16 153 +2E*^	2500	4000
	0.0220	3.0	6.5	7.2	0.6	5	5	320	0.35	16 223 +2E*^	2500	4000
	0.0330	3.5	7.5	7.2	0.6	5	5	320	0.35	16 333 +2E*^	2000	4000
	0.0470	3.7	7.7	7.4	0.6	5	5	320	0.45	16 473 +2E*^	1500	2000
	0.0680	4.5	9.5	7.2	0.6	5	5	320	0.45	16 683 +2E*^	1500	2000
	0.1000	6.0	11.0	7.2	0.6	5	5	320	0.60	16 104 +2E*^	1000	2000
400V	0.0010	2.5	6.5	7.2	0.6	5	5	600	0.35	16 102 +2G*^	3000	4000
	0.0015	2.5	6.5	7.2	0.6	5	5	600	0.35	16 152 +2G*^	3000	4000
	0.0022	2.5	6.5	7.2	0.6	5	5	600	0.35	16 222 +2G*^	3000	4000
	0.0033	2.5	6.5	7.2	0.6	5	5	600	0.35	16 332 +2G*^	3000	4000
	0.0047	3.0	6.5	7.2	0.6	5	5	600	0.35	16 472 +2G*^	2500	4000
	0.0068	3.0	6.5	7.2	0.6	5	5	600	0.35	16 682 +2G*^	2500	4000
	0.0100	3.7	7.7	7.4	0.6	5	5	600	0.35	16 103 +2G*^	2000	4000
	0.0150	4.5	9.5	7.2	0.6	5	5	600	0.50	16 153 +2G*^	1500	2000
	0.0220	4.7	9.7	7.4	0.6	5	5	600	0.50	16 223 +2G*^	1500	2000
	0.0330	5.0	10.0	7.2	0.6	5	5	600	0.60	16 333 +2G*^	1500	2000
	0.0470	6.0	11.0	7.2	0.6	5	5	600	0.60	16 473 +2G*^	1000	2000



METALLISED POLYESTER FILM CAPACITORS (Sub-Miniature Box / Dip Type)

5.0 mm Pitch - Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
50V	0.1000	2.5	6.5	7.2	0.6	5	5	50	0.25	14 104 +1H*^	3000	4000
	0.1500	3.5	8.5	7.2	0.6	5	5	50	0.35	14 154 +1H*^	2000	4000
	0.2200	3.5	8.5	7.2	0.6	5	5	50	0.35	14 224 +1H*^	2000	4000
	0.3300	3.5	8.5	7.2	0.6	5	5	50	0.35	14 334 +1H*^	2000	4000
	0.4700	4.5	9.5	7.2	0.6	5	5	50	0.45	14 474 +1H*^	1500	2000
	0.6800	5.0	11.0	7.2	0.6	5	5	50	0.60	14 684 +1H*^	1500	2000
	1.0000	6.0	11.0	7.2	0.6	5	5	50	0.60	14 105 +1H*^	1000	4000
63V	0.0100	2.5	6.5	7.2	0.6	5	5	60	0.25	14 103 +1J*^	3000	4000
	0.0150	2.5	6.5	7.2	0.6	5	5	60	0.25	14 153 +1J*^	3000	4000
	0.0220	2.5	6.5	7.2	0.6	5	5	60	0.25	14 223 +1J*^	3000	4000
	0.0330	2.5	6.5	7.2	0.6	5	5	60	0.25	14 333 +1J*^	3000	4000
	0.0470	2.5	6.5	7.2	0.6	5	5	60	0.25	14 473 +1J*^	3000	4000
	0.0680	2.5	6.5	7.2	0.6	5	5	60	0.25	14 683 +1J*^	3000	4000
	0.1000	2.5	6.5	7.2	0.6	5	5	60	0.25	14 104 +1J*^	3000	4000
	0.1500	3.5	8.5	7.2	0.6	5	5	60	0.35	14 154 +1J*^	2000	4000
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	0.0068	2.5	6.5	7.2	0.6	5	5	110	0.25	14 682 +2A*^	2500	4000
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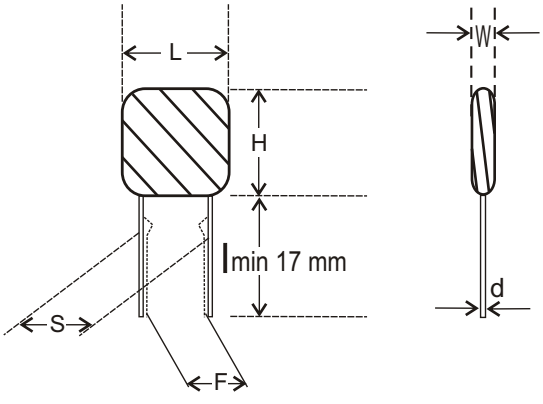

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Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Capacitors are tested at ERTL (North) as per IEC 384-2 and approved by CACT for telecom application

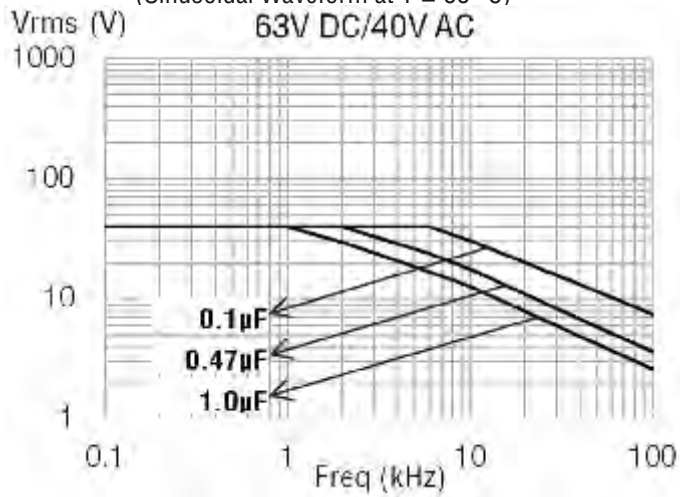
TAN δ (DISSIPATION FACTOR) AT 20°C

Frequency (kHz)	C_R < 0.1 µF	0.1 µF < C_R ≤ 1 µF	C_R >1 µF
At 1	≤ 0.8%	≤ 0.8%	1.0%
At 10	≤ 1.5%	≤ 1.5%	-
At 100	≤ 3.0%	≤ 3.0%	

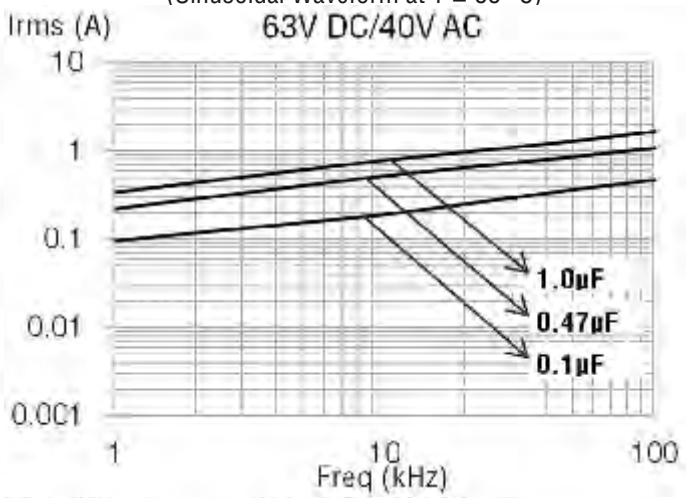
INSULATION RESISTANCE

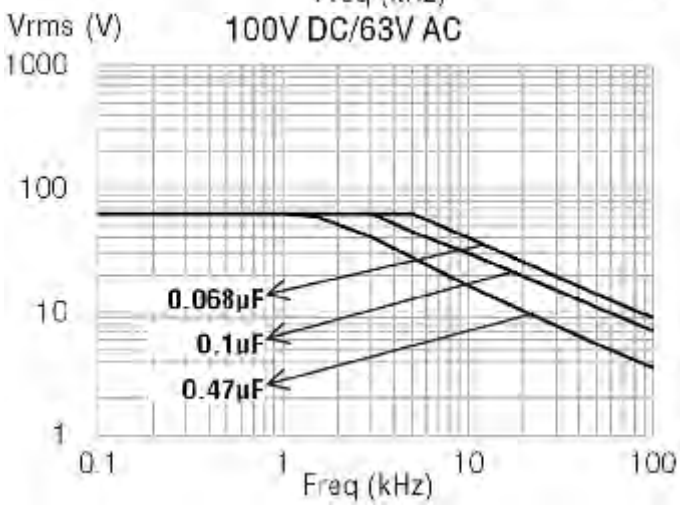
Minimum Insulation Resistance R_{IS}	V_R	C_R ≤ 0.33 µF	C_R > 0.33 µF
(or) time constant $T = C_R \times R_{IS}$	≤ 100 V DC	3750 MΩ	1250 s
at 25° C, relative humidity ≤ 70%	≥ 250 V DC	7500 MΩ	2500 s

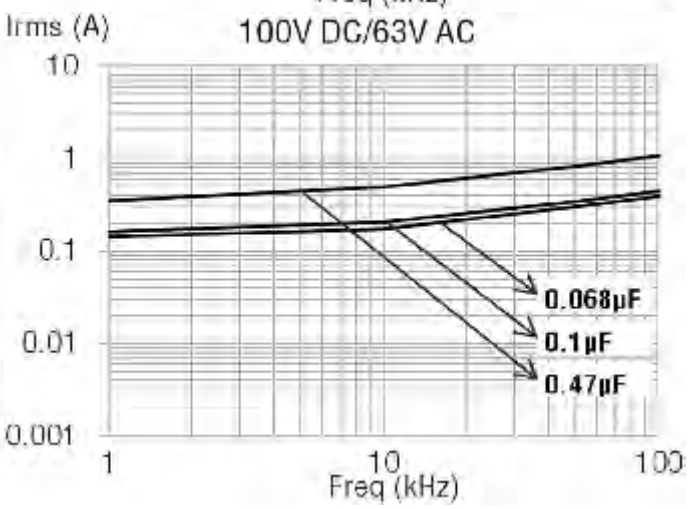
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



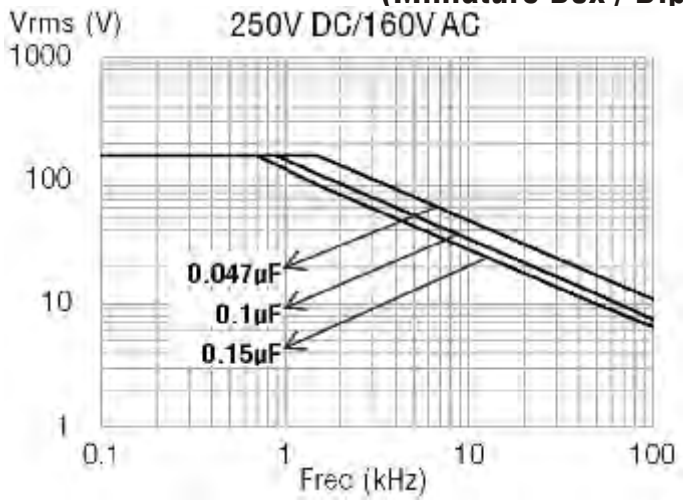
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

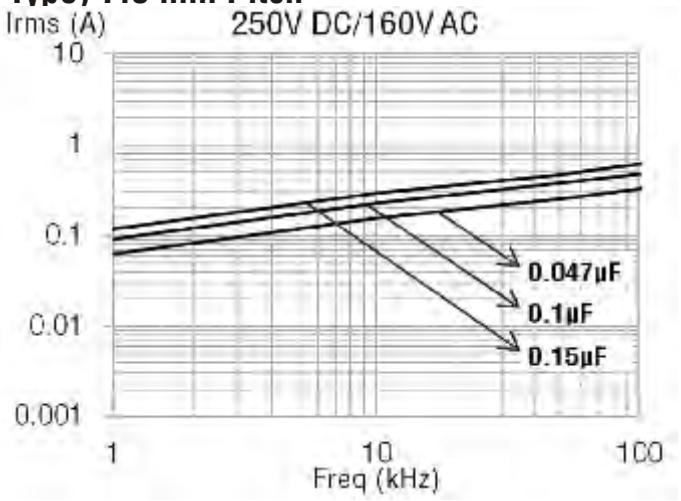


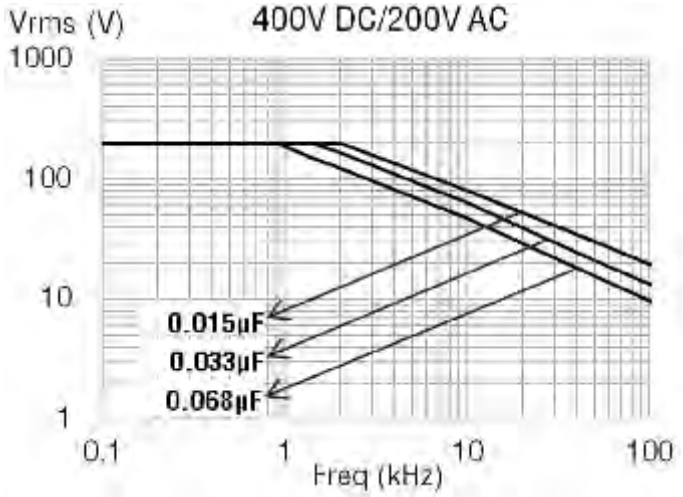


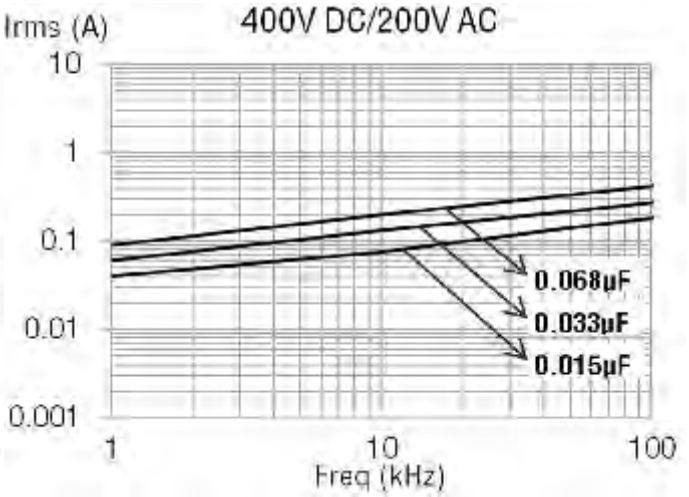


METALLISED POLYESTER FILM CAPACITORS
(Miniature Box / Dip Type) 7.5 mm Pitch









NOTE: The derating curves are based on the actual observed values.

DEKI
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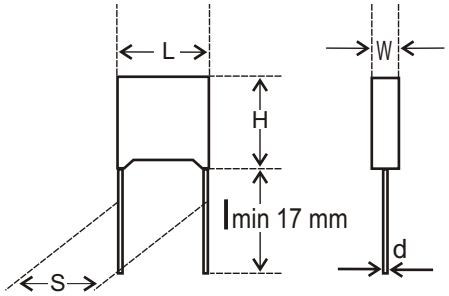
METALLISED POLYESTER FILM CAPACITORS (Miniature Box / Dip Type)

7.5 mm Pitch - Ordering codes and packaging units - *Box Type*

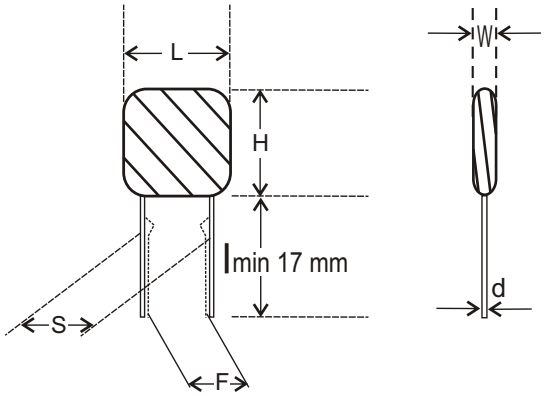
Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Reel	Bulk
63V	0.1000	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	15 104 +1J*^	1500	1500	1000
	0.1500	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	15 154 +1J*^	1500	1500	1000
	0.2200	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	15 224 +1J*^	1500	1500	1000
	0.3300	4.0	9.0	10.5	0.6	7.5	7.5	18	0.60	15 334 +1J*^	1500	1000	1000
	0.4700	5.0	11.0	10.5	0.6	7.5	7.5	18	0.70	15 474 +1J*^	1000	1000	1000
	0.6800	5.0	11.0	10.5	0.6	7.5	7.5	18	0.70	15 684 +1J*^	1000	1000	1000
	1.0000	6.0	12.0	10.5	0.6	7.5	7.5	18	0.80	15 105 +1J*^	750	750	1000
100V	0.0330	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	15 333 +2A*^	1500	1500	1000
	0.0470	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	15 473 +2A*^	1500	1500	1000
	0.0680	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	15 683 +2A*^	1500	1500	1000
	0.1000	4.5	9.0	10.5	0.6	7.5	7.5	36	0.60	15 104 +2A*^	1500	1000	1000
	0.1500	4.5	9.0	10.5	0.6	7.5	7.5	36	0.50	15 154 +2A*^	1500	1000	1000
	0.2200	4.5	9.0	10.5	0.6	7.5	7.5	36	0.50	15 224 +2A*^	1500	1000	1000
	0.3300	5.0	11.0	10.5	0.6	7.5	7.5	36	0.70	15 334 +2A*^	1000	1000	1000
	0.4700	6.0	12.0	10.5	0.6	7.5	7.5	36	0.90	15 474 +2A*^	750	750	1000
250V	0.0100	3.5	6.5	10.5	0.6	7.5	7.5	70	0.50	15 103 +2E*^	1500	1500	1000
	0.0150	3.5	6.5	10.5	0.6	7.5	7.5	70	0.45	15 153 +2E*^	1500	1500	1000
	0.0220	3.5	6.5	10.5	0.6	7.5	7.5	70	0.45	15 223 +2E*^	1500	1500	1000
	0.0330	3.5	6.5	10.5	0.6	7.5	7.5	70	0.50	15 333 +2E*^	1500	1000	1000
	0.0470	4.0	9.0	10.5	0.6	7.5	7.5	70	0.60	15 473 +2E*^	1500	1000	1000
	0.0680	4.0	9.0	10.5	0.6	7.5	7.5	70	0.70	15 683 +2E*^	1500	1000	1000
	0.1000	4.0	9.0	10.5	0.6	7.5	7.5	70	0.70	15 104 +2E*^	1500	1000	1000
	0.1500	5.0	11.0	10.5	0.6	7.5	7.5	70	0.90	15 154 +2E*^	1000	750	1000
	0.2200	6.0	12.0	10.5	0.6	7.5	7.5	70	0.90	15 224 +2E*^	750	750	1000
400V	0.0047	3.5	6.5	10.5	0.6	7.5	7.5	190	0.45	15 472 +2G*^	1500	1500	1000
	0.0068	3.5	6.5	10.5	0.6	7.5	7.5	190	0.60	15 682 +2G*^	1500	1500	1000
	0.0100	4.0	9.0	10.5	0.6	7.5	7.5	190	0.60	15 103 +2G*^	1500	1000	1000
	0.0150	4.0	9.0	10.5	0.6	7.5	7.5	190	0.50	15 153 +2G*^	1500	1000	1000
	0.0220	4.0	9.0	10.5	0.6	7.5	7.5	190	0.60	15 223 +2G*^	1500	1000	1000
	0.0330	4.0	9.0	10.5	0.6	7.5	7.5	190	0.80	15 333 +2G*^	1500	1000	1000
	0.0470	5.0	11.0	10.5	0.6	7.5	7.5	190	0.90	15 473 +2G*^	1000	750	1000
	0.0560	5.0	11.0	10.5	0.6	7.5	7.5	190	0.90	15 563 +2G*^	1000	750	1000
	0.0680	6.0	12.0	10.5	0.6	7.5	7.5	190	0.90	15 683 +2G*^	750	750	1000
630V	0.0100	5.0	11.0	10.5	0.6	7.5	7.5	450	0.60	15 103 +2J*^	1000	1000	1000
	0.0150	6.0	12.0	10.5	0.6	7.5	7.5	450	0.60	15 153 +2J*^	750	750	1000
	0.0220	6.0	12.0	10.5	0.6	7.5	7.5	450	0.70	15 223 +2J*^	750	750	1000



METALLISED POLYESTER FILM CAPACITORS (Miniature Box / Dip Type)

7.5 mm Pitch - Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Reel	Bulk
63V	0.1000	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	13 104 +1J*^	1500	1500	1000
	0.1500	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	13 154 +1J*^	1500	1500	1000
	0.2200	3.5	6.5	10.5	0.6	7.5	7.5	18	0.45	13 224 +1J*^	1500	1500	1000
	0.3300	4.0	9.0	10.5	0.6	7.5	7.5	18	0.50	13 334 +1J*^	1500	1000	1000
	0.4700	5.0	11.0	10.5	0.6	7.5	7.5	18	0.70	13 474 +1J*^	1000	1000	1000
	0.6800	5.0	11.0	10.5	0.6	7.5	7.5	18	0.70	13 684 +1J*^	1000	1000	1000
	1.0000	6.0	12.0	10.5	0.6	7.5	7.5	18	0.80	13 105 +1J*^	750	750	1000
100V	0.0330	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	13 333 +2A*^	1500	1500	1000
	0.0470	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	13 473 +2A*^	1500	1500	1000
	0.0680	3.5	6.5	10.5	0.6	7.5	7.5	36	0.45	13 683 +2A*^	1500	1500	1000
	0.1000	5.0	10.0	10.5	0.6	7.5	7.5	36	0.50	13 104 +2A*^	1500	1000	1000
	0.1500	4.0	9.0	10.5	0.6	7.5	7.5	36	0.50	13 154 +2A*^	1500	1000	1000
	0.2200	4.5	9.0	10.5	0.6	7.5	7.5	36	0.50	13 224 +2A*^	1500	1000	1000
	0.3300	5.0	11.0	10.5	0.6	7.5	7.5	36	0.70	13 334 +2A*^	1000	1000	1000
	0.4700	5.5	11.0	10.5	0.6	7.5	7.5	36	0.90	13 474 +2A*^	750	750	1000
250V	0.0220	3.5	8.0	10.5	0.6	7.5	7.5	70	0.45	13 223 +2E*^	1500	1500	1000
	0.0330	4.0	9.0	10.5	0.6	7.5	7.5	70	0.50	13 333 +2E*^	1500	1000	1000
	0.0470	4.0	9.0	10.5	0.6	7.5	7.5	70	0.50	13 473 +2E*^	1500	1000	1000
	0.0680	4.0	9.0	10.5	0.6	7.5	7.5	70	0.70	13 683 +2E*^	1500	1000	1000
	0.1000	5.0	10.0	10.5	0.6	7.5	7.5	70	0.70	13 104 +2E*^	1500	1000	1000
	0.1500	5.0	11.0	10.5	0.6	7.5	7.5	70	0.90	13 154 +2E*^	1000	750	1000
	0.2200	6.0	12.0	10.5	0.6	7.5	7.5	70	0.90	13 224 +2E*^	750	750	1000
400V	0.0220	4.5	10.0	10.5	0.6	7.5	7.5	190	0.50	13 223 +2G*^	1500	1000	1000
	0.0330	5.5	11.0	10.5	0.6	7.5	7.5	190	0.70	13 333 +2G*^	1500	1000	1000
	0.0470	5.5	11.0	10.5	0.6	7.5	7.5	190	0.70	13 473 +2G*^	1000	750	1000
	0.0560	5.5	11.0	10.5	0.6	7.5	7.5	190	1.10	13 563 +2G*^	1000	750	1000
	0.0680	6.0	12.0	10.5	0.6	7.5	7.5	190	1.10	13 683 +2G*^	750	750	1000
630V	0.0015	3.5	6.5	10.5	0.6	7.5	7.5	450	0.50	13 152 +2J*^	1500	1000	1000
	0.0022	3.5	6.5	10.5	0.6	7.5	7.5	450	0.50	13 222 +2J*^	1500	1000	1000
	0.0033	3.5	6.5	10.5	0.6	7.5	7.5	450	0.55	13 332 +2J*^	1500	1000	1000
	0.0047	4.0	9.0	10.5	0.6	7.5	7.5	450	0.60	13 472 +2J*^	1500	1000	1000
	0.0068	4.0	9.0	10.5	0.6	7.5	7.5	450	0.65	13 682 +2J*^	1500	1000	1000
	0.0100	5.5	11.0	10.5	0.6	7.5	7.5	450	0.70	13 103 +2J*^	1000	1000	1000
	0.0150	6.5	12.0	10.5	0.6	7.5	7.5	450	0.90	13 153 +2J*^	750	750	1000
	0.0220	6.5	12.0	10.5	0.6	7.5	7.5	450	0.90	13 223 +2J*^	750	750	1000



DEKI
Film Capacitor Solutions

METALLISED POLYESTER FILM CAPACITORS
(Standard Pitch: 10-27.5 mm)

MAIN APPLICATION: Blocking, bypassing, filtering, timing, coupling and decoupling, interference suppression in low voltage applications, low pulse operations

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant epoxy resin or enclosed in flame retardant box

CLIMATIC CATEGORY: 40/100/56

TEMPERATURE DERATING: Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-2

CAPACITANCE VALUE, RATED VOLTAGE (DC):
Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: Between terminals: 1.6 times of rated voltage for 2 seconds.

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of rated voltage at 100° C

Criteria after the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.003, C_R ≤ 1 µF; ≤ 0.002, C_R> 1 µF
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Capacitors are tested at ERTL (North) as per IEC 384-2 and approved by CACT for telecom application

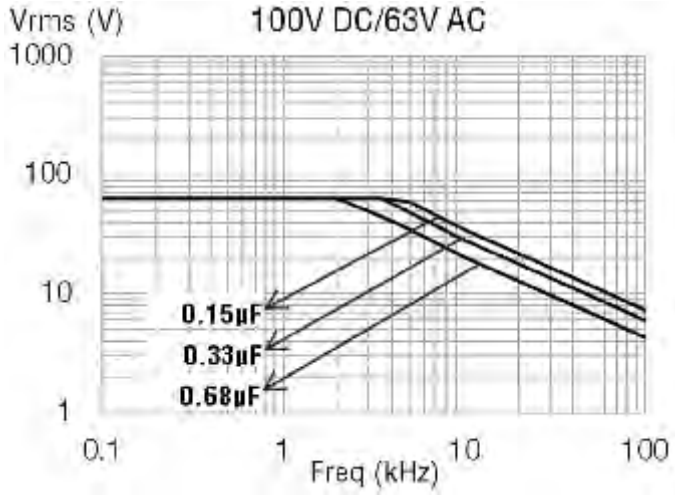
TAN δ (DISSIPATION FACTOR) AT 20°C

Frequency (kHz)	C_R < 0.1 µF	0.1 µF < C_R ≤ 1 µF	C_R >1 µF
At 1	0.8%	0.8%	1.0%
At 10	1.5%	1.5%	-
At 100	3.0%	3.0%	

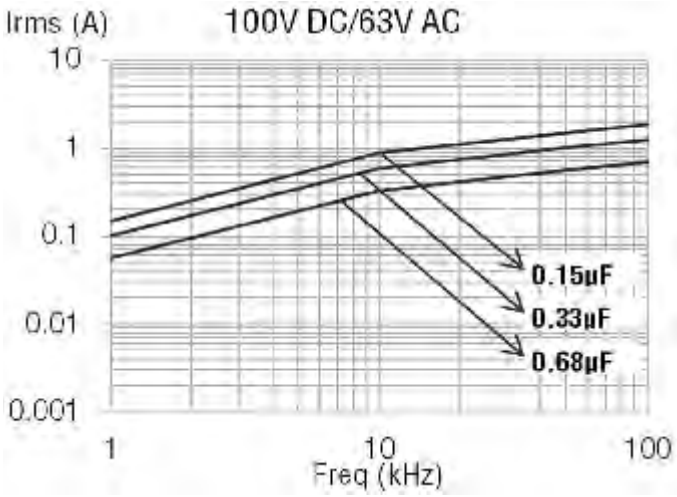
INSULATION RESISTANCE

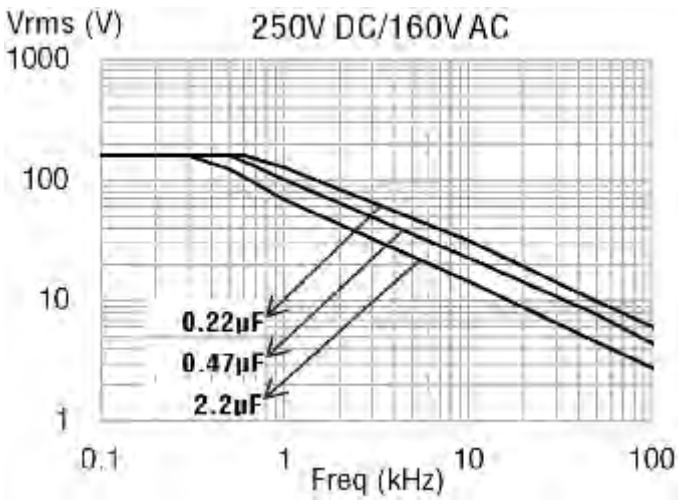
Minimum Insulation Resistance R_{IS}	V_R	C_R≤ 0.33 µF	C_R> 0.33 µF
(or) time constant $T=C_R \times R_{IS}$	≤ 100 V DC	3750 MΩ	1250 s
at 25° C, relative humidity ≤ 70%	> 100 V DC	7500 MΩ	2500 s

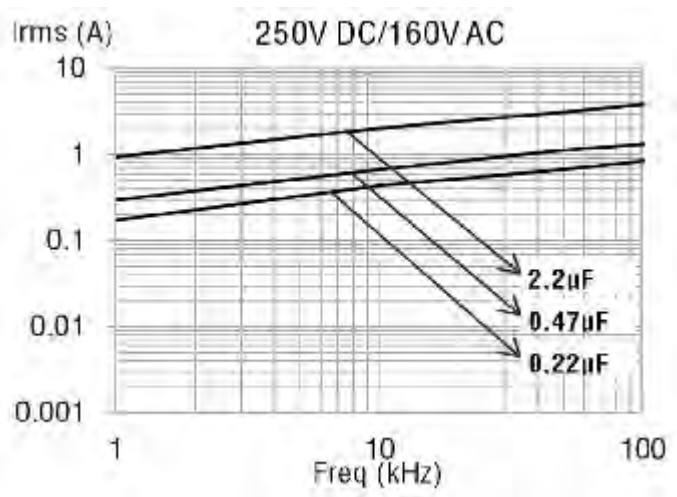
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

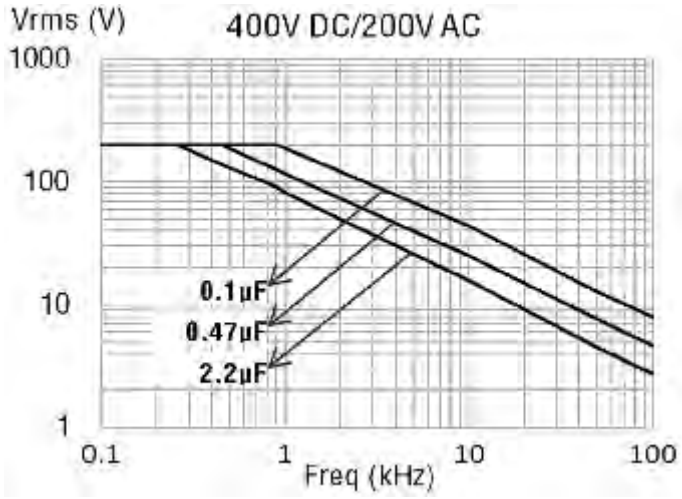


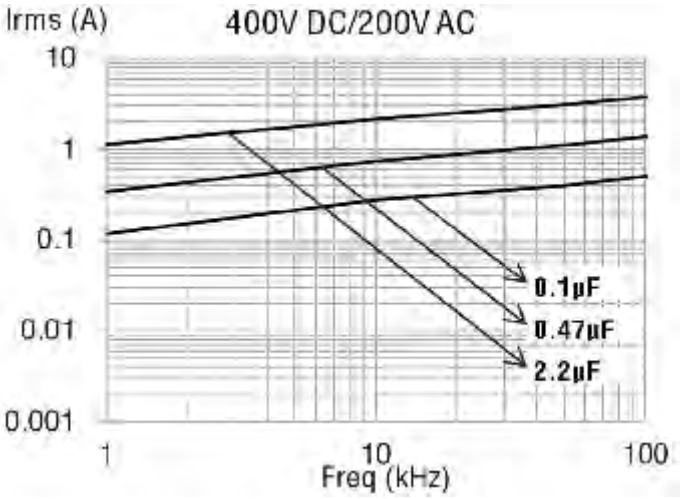
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

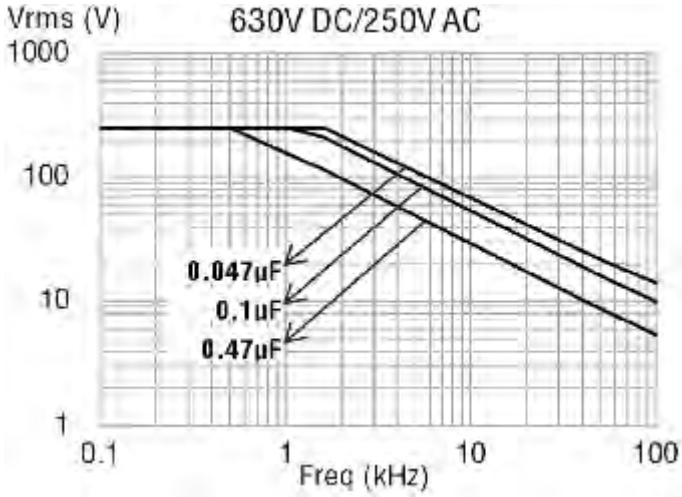


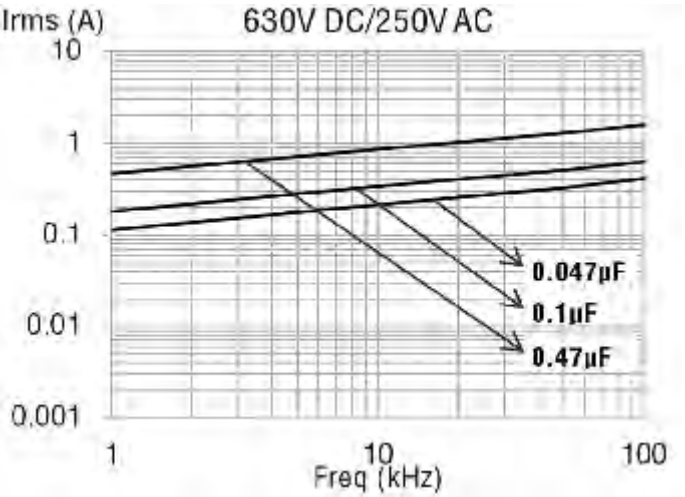


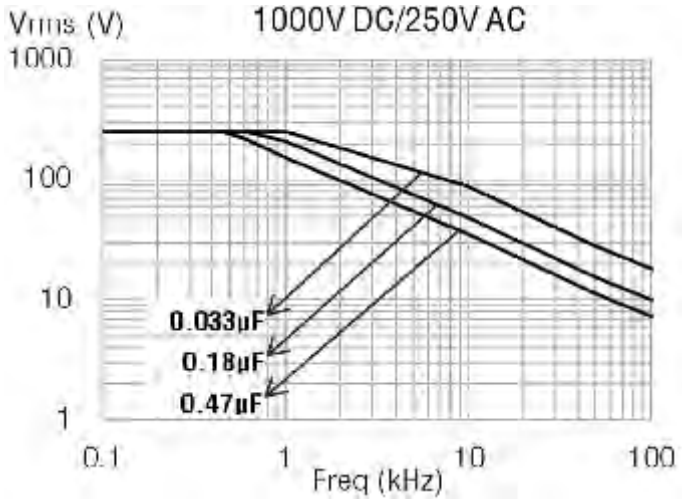


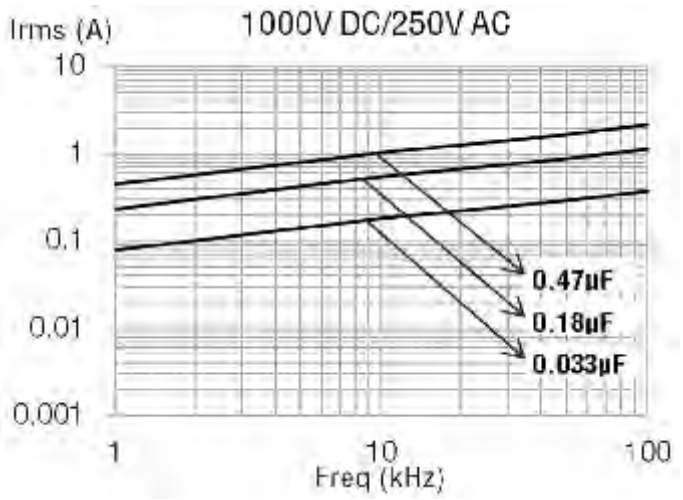












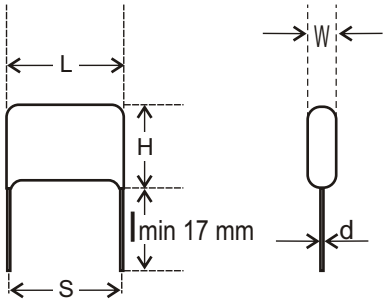
NOTE: The derating curves are based on the actual observed values.

DEKI
Film Capacitor Solutions

METALLISED POLYESTER FILM CAPACITORS (Standard Pitch: 10-27.5 mm)

Ordering codes and packaging units - *Dip Type*

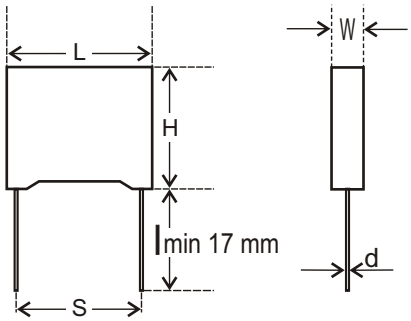
Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
100V DC	0.100	5.0	10.0	13	0.6	10.0	10.0	28	0.60	02 104 +2A*^	1500	1000
	0.150	6.0	12.0	13	0.6	10.0	10.0	28	0.65	02 154 +2A*^	1500	1000
	0.220	7.0	12.0	13	0.6	10.0	10.0	28	0.90	02 224 +2A*^	1500	1000
	0.330	6.0	12.0	19	0.8	10.0	10.0	20	0.90	02 334 +2A*^	-	1000
	0.470	9.0	15.0	19	0.8	15.0	15.0	20	0.90	02 474 +2A*^	-	1000
	0.680	6.0	12.0	19	0.8	15.0	15.0	20	1.00	02 684 +2A*^	-	1000
	1.000	9.0	15.0	19	0.8	15.0	15.0	20	1.30	02 105 +2A*^	-	1000
	1.500	6.0	15.0	27	0.8	22.5	15.0	8	2.00	02 155 +2A*^	-	1000
	2.200	10.0	18.0	27	0.8	22.5	15.0	8	2.80	02 225 +2A*^	-	500
	3.300	8.5	18.0	27	0.8	22.5	22.5	8	4.00	02 335 +2A*^	-	500
	4.700	15.0	22.0	27	0.8	22.5	-	7	5.20	02 475 +2A*^	-	500
250V DC	0.027	4.0	9.0	13	0.6	10.0	10.0	70	0.65	02 273 +2E*^	1500	1000
	0.033	4.0	9.0	13	0.6	10.0	10.0	70	0.65	02 333 +2E*^	1500	1000
	0.047	6.0	10.0	13	0.6	10.0	10.0	70	0.70	02 473 +2E*^	1500	1000
	0.068	7.0	12.0	13	0.6	10.0	10.0	70	0.70	02 683 +2E*^	1500	1000
	0.082	5.0	10.0	13	0.6	10.0	10.0	70	0.75	02 823 +2E*^	1500	1000
	0.100	6.0	12.0	13	0.6	10.0	10.0	70	0.75	02 104 +2E*^	1500	1000
	0.150	6.0	12.0	13	0.8	10.0	10.0	70	0.80	02 154 +2E*^	-	1000
	0.220	6.0	12.0	19	0.8	15.0	15.0	28	1.40	02 224 +2E*^	-	1000
	0.330	7.0	13.0	19	0.8	15.0	15.0	28	1.40	02 334 +2E*^	-	1000
	0.470	9.0	15.0	19	0.8	15.0	15.0	28	2.10	02 474 +2E*^	-	1000
	0.680	9.0	14.0	19	0.8	15.0	15.0	28	2.90	02 684 +2E*^	-	1000
	1.000	7.5	16.5	27	0.8	22.5	22.5	12	3.60	02 105 +2E*^	-	500
	1.500	8.5	17.5	27	0.8	22.5	-	12	5.10	02 155 +2E*^	-	500
	2.200	10.0	20.0	27	0.8	22.5	-	12	6.50	02 225 +2E*^	-	250
	3.300	12.0	21.0	27	0.8	22.5		12	7.50	02 335 +2E*^	-	250
400V DC	0.010	4.0	9.0	13	0.6	10.0	10.0	110	0.60	02 103 +2G*^	1500	1000
	0.015	6.0	15.0	13	0.6	10.0	10.0	110	0.60	02 153 +2G*^	1500	1000
	0.022	6.0	12.0	13	0.6	10.0	10.0	110	0.60	02 223 +2G*^	1500	1000
	0.033	5.0	10.0	13	0.6	10.0	10.0	110	0.60	02 333 +2G*^	1500	1000
	0.047	6.0	12.0	13	0.8	10.0	10.0	110	0.62	02 473 +2G*^	-	1000
	0.068	6.0	12.0	13	0.8	10.0	10.0	110	0.70	02 683 +2G*^	-	1000
	0.100	6.0	12.5	19	0.8	15.0	15.0	44	1.00	02 104 +2G*^	-	1000
	0.150	8.0	16.0	19	0.8	15.0	15.0	44	1.30	02 154 +2G*^	-	1000
	0.220	8.0	15.0	19	0.8	15.0	15.0	44	1.70	02 224 +2G*^	-	1000
	0.330	6.0	15.0	27	0.8	22.5	22.5	20	2.60	02 334 +2G*^	-	1000
	0.470	7.5	16.5	27	0.8	22.5	22.5	20	3.40	02 474 +2G*^	-	500
	0.680	8.0	15.0	27	0.8	22.5	-	20	3.50	02 564 +2G*^	-	500
	0.820	7.0	16.0	32	0.8	27.5	-	16	4.00	02 824 +2G*^	-	500
	1.000	7.0	16.0	32	0.8	27.5	-	16	4.00	02 105 +2G*^	-	250
	1.500	10.0	18.0	32	0.8	27.5	-	16	5.00	02 155 +2G*^	-	250
	2.200	10.3	19.6	31	0.8	27.5	-	16	6.87	02 225 +2G*^	-	250
	3.300	13.7	21.2	31	0.8	27.5	-	16	9.50	02 335 +2G*^	-	250
630V DC	0.011	5.0	12.0	13	0.6	10.0	10.0	70	0.65	02 103 +2J*^	1500	1000
	0.015	6.0	12.0	13	0.6	10.0	10.0	70	0.65	02 153 +2J*^	1500	1000
	0.022	6.0	12.0	13	0.6	10.0	10.0	70	0.70	02 223 +2J*^	1500	1000
	0.033	6.0	12.0	19	0.8	15.0	15.0	70	1.00	02 333 +2J*^	-	1000
	0.047	7.0	13.0	19	0.8	15.0	15.0	70	1.20	02 473 +2J*^	-	1000
	0.068	8.0	14.0	19	0.8	15.0	15.0	70	1.40	02 683 +2J*^	-	1000
	0.082	8.0	14.5	19	0.8	15.0	15.0	70	1.80	02 823 +2J*^	-	1000
	0.110	8.0	16.0	19	0.8	15.0	15.0	70	2.00	02 104 +2J*^	-	1000
	0.150	8.0	16.0	19	0.8	15.0	15.0	70	2.50	02 154 +2J*^	-	500
	0.220	8.0	15.0	27	0.8	22.5	22.5	28	3.00	02 224 +2J*^	-	500
	0.330	10.0	19.0	32	0.8	27.5	-	24	5.00	02 334 +2J*^	-	250
	0.470	12.0	21.0	32	0.8	27.5	-	24	6.50	02 474 +2J*^	-	250
	1.000	17.0	29.0	31	0.8	27.5		24	9.50	02 105 +2J*^	-	250
1000V DC	0.180	10.0	22.5	31	0.8	27.5	-			02 184 + 3A*^	-	250
	0.470	16.0	28.0	31	0.8	27.5	-			02 474 + 3A*^	-	250



METALLISED POLYESTER FILM CAPACITORS (Standard Pitch: 10-27.5 mm)

Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
100V DC	0.056	4.0	9.0	13.0	0.6	10.0	10.0	28	0.4	06 563 +2A*^	-	1000
	0.082	4.0	9.0	13.0	0.6	10.0	10.0	28	0.4	06 823 +2A*^	-	1000
	0.100	4.0	9.0	13.0	0.6	10.0	10.0	28	0.4	06 104 +2A*^	-	1000
	0.150	4.0	9.0	13.0	0.6	10.0	10.0	28	0.4	06 154 +2A*^	-	1000
	0.220	4.5	9.5	13.0	0.6	10.0	10.0	28	0.5	06 224 +2A*^	-	1000
	0.330	5.0	11.0	19.0	0.8	15.0	15.0	20	0.6	06 334 +2A*^	-	1000
	0.470	5.5	11.5	19.0	0.8	15.0	15.0	20	0.7	06 474 +2A*^	-	1000
	0.680	6.0	12.0	19.0	0.8	15.0	15.0	20	1.0	06 684 +2A*^	-	1000
	1.000	7.5	13.5	19.0	0.8	15.0	15.0	20	1.3	06 105 +2A*^	-	1000
	1.500	6.0	12.0	18.0	0.8	15.0	15.0	8	2.0	06 155 +2A*^	-	1000
	2.200	6.5	16.5	27.0	0.8	22.5	22.5	8	2.8	06 225 +2A*^	-	500
	3.300	8.5	18.0	27.0	0.8	22.5	22.5	8	4.0	06 335 +2A*^	-	500
	4.700	9.5	18.5	32.0	0.8	27.5	-	7	5.2	06 475 +2A*^	-	500
	6.800	11.5	20.5	32.0	0.8	27.5	-	7	6.5	06 685 +2A*^	-	250
250V DC	0.027	4.0	9.0	13.0	0.6	10.0	10.0	70	0.4	06 273 +2E*^	-	1000
	0.033	4.0	9.0	13.0	0.6	10.0	10.0	70	0.4	06 333 +2E*^	-	1000
	0.047	4.0	9.0	13.0	0.6	10.0	10.0	70	0.4	06 473 +2E*^	-	1000
	0.068	4.5	9.5	13.0	0.6	10.0	10.0	70	0.4	06 683 +2E*^	-	1000
	0.082	5.0	10.0	13.0	0.6	10.0	10.0	70	0.5	06 823 +2E*^	-	1000
	0.100	5.0	10.0	13.0	0.6	10.0	10.0	70	0.5	06 104 +2E*^	-	1000
	0.150	5.0	11.0	19.0	0.8	15.0	15.0	28	0.7	06 154 +2E*^	-	1000
	0.220	6.0	12.0	18.0	0.8	15.0	15.0	28	0.9	06 224 +2E*^	-	1000
	0.330	7.0	13.0	19.0	0.8	15.0	15.0	28	1.3	06 334 +2E*^	-	1000
	0.470	5.5	14.5	27.0	0.8	22.5	22.5	12	2.1	06 474 +2E*^	-	1000
	0.680	6.5	15.5	27.0	0.8	22.5	22.5	12	2.9	06 684 +2E*^	-	1000
	1.000	7.5	16.5	27.0	0.8	22.5	22.5	12	3.6	06 105 +2E*^	-	500
	1.500	8.5	17.5	32.0	0.8	27.5	-	10	5.1	06 155 +2E*^	-	500
	2.200	10.5	19.5	32.0	0.8	27.5	-	10	6.4	06 224 +2E*^	-	250
400V DC	0.010	4.0	9.0	13.0	0.6	10.0	10.0	110	0.4	06 103 +2G*^	-	1000
	0.015	4.0	9.0	13.0	0.6	10.0	10.0	110	0.4	06 153 +2G*^	-	1000
	0.022	4.0	9.0	13.0	0.6	10.0	10.0	110	0.4	06 223 +2G*^	-	1000
	0.033	4.5	9.5	13.0	0.6	10.0	10.0	110	0.4	06 333 +2G*^	-	1000
	0.047	4.5	10.5	19.0	0.8	15.0	15.0	44	0.6	06 473 +2G*^	-	1000
	0.068	5.5	11.5	13.5	0.8	15.0	15.0	44	0.7	06 683 +2G*^	-	1000
	0.100	5.5	12.5	19.0	0.8	15.0	15.0	44	0.9	06 104 +2G*^	-	1000
	0.150	5.5	12.5	19.0	0.8	15.0	15.0	44	1.3	06 154 +2G*^	-	1000
	0.220	6.0	15.0	27.0	0.8	22.5	22.5	20	1.9	06 224 +2G*^	-	1000
	0.330	6.0	15.0	27.0	0.8	22.5	22.5	20	2.6	06 334 +2G*^	-	1000
	0.470	7.5	16.5	27.0	0.8	22.5	22.5	20	3.4	06 474 +2G*^	-	500
	0.560	7.5	16.5	32.0	0.8	27.5	-	16	3.5	06 564 +2G*^	-	500
	0.820	9.0	18.0	32.0	0.8	27.5	-	16	4.5	06 824 +2G*^	-	500
	1.000	10.0	19.0	32.0	0.8	27.5	-	16	5.0	06 105 +2G*^	-	250
630V DC	0.010	5.0	11.0	13.0	0.6	10.0	10.0	70	0.4	06 103 +2J*^	-	1000
	0.015	5.5	10.5	13.0	0.6	10.0	10.0	70	0.6	06 153 +2J*^	-	1000
	0.022	5.0	11.0	13.0	0.6	10.0	10.0	70	0.7	06 223 +2J*^	-	1000
	0.033	6.0	12.0	19.0	0.8	15.0	15.0	70	1.0	06 333 +2J*^	-	1000
	0.047	7.0	13.0	19.0	0.8	15.0	15.0	70	1.2	06 473 +2J*^	-	1000
	0.068	8.0	14.0	19.0	0.8	15.0	15.0	70	1.4	06 683 +2J*^	-	1000
	0.082	5.5	14.5	27.0	0.8	22.5	22.5	28	1.8	06 823 +2J*^	-	1000
	0.100	6.0	15.0	27.0	0.8	22.5	22.5	28	2.1	06 104 +2J*^	-	1000
	0.150	7.5	16.5	27.0	0.8	22.5	22.5	28	2.9	06 154 +2J*^	-	500
	0.220	9.5	18.5	27.0	0.8	22.5	22.5	28	3.5	06 224 +2J*^	-	500
	0.330	10.0	19.0	32.0	0.8	27.5	-	24	5.0	06 334 +2J*^	-	250
	0.470	12.0	21.0	32.0	0.8	27.5	-	24	6.5	06 474 +2J*^	-	250



DEKI
Film Capacitor Solutions

METALLISED POLYESTER FLAT AXIAL CAPACITORS
MPET Flat Axial Series

MAIN APPLICATION: Blocking, bypassing, filtering, timing, coupling and decoupling, low pulse operations

CONSTRUCTION (BOX TYPE): Low inductive cell of metallised polyester film, axial construction with polyester tape wrapped and end sealed

CLIMATIC CATEGORY: 40/100/21

TEMPERATURE DERATING: Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-2

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

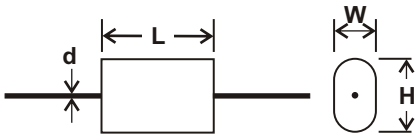
VOLTAGE PROOF: Between terminals: 1.6 times of rated voltage for 2 seconds

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 85° C for 1000 hours

Criteria after the test:
Δc/c: ≤ 10% of initial value
Change in Tan δ: ≤ 0.003, C_R≤1μF; ≤ 0.002, C_R>1μF
Insulation resistance: ≥ 50% of the value mentioned in IR chart

TAN δ (DISSIPATION FACTOR) AT 20°C

Frequency (kHz)	0.1 μF < C_R ≤ 1 μF	C_R >1 μF
At 1	1.0%	1.0%
At 10	1.5%	-
At 100	3.0%	



L≤15 : d=0.6
L>15 : d=0.8

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS}	V_R	C_R ≤ 0.33 μF	C_R > 0.33 μF
(or) time constant $T=C_R \times R_{IS}$	≤ 100 V DC	3750 MΩ	1250 s
at 25° C, relative humidity ≤ 70%	> 100 V DC	7500 MΩ	2500 s

Ordering codes and packaging units

Rated Voltage	Rated cap. (μfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
100V DC	0.220	4.0	8.0	15	0.6	10	36 224 +2A*^	1000
	0.330	5.0	8.5	15	0.6	10	36 334 +2A*^	1000
	0.470	5.5	9.5	15	0.6	10	36 474 +2A*^	1000
250V DC	0.100	4.0	9.0	15	0.6	22	36 104 +2E*^	1000
	0.150	5.5	10.0	15	0.6	22	36 154 +2E*^	1000
	0.220	7.0	11.0	15	0.6	22	36 224 +2E*^	1000
	0.680	5.5	12.0	27	0.8	10	36 684 +2E*^	500
	1.000	7.0	13.0	27	0.8	10	36 105 +2E*^	500
	1.500	8.5	14.5	27	0.8	10	36 155 +2E*^	500
400V DC	0.047	4.5	8.0	15	0.6	28	36 473 +2G*^	1000
	0.100	6.0	10.0	15	0.6	28	36 104 +2G*^	1000
	0.150	7.0	11.0	15	0.6	28	36 154 +2G*^	1000
	0.220	5.0	10.0	27	0.8	14	36 224 +2G*^	500
	0.330	6.0	10.0	27	0.8	14	36 334 +2G*^	500
	0.470	7.0	11.5	27	0.8	14	36 474 +2G*^	500
	0.680	7.0	14.5	27	0.8	14	36 684 +2G*^	500
	1.000	8.5	17.0	27	0.8	14	36 105 +2G*^	500
	1.500	10.0	17.0	32	0.8	8	36 155 +2G*^	500
	2.200	11.5	19.0	32	0.8	8	36 225 +2G*^	500
	3.300	13.5	22.5	32	0.8	8	36 335 +2G*^	500
	4.700	16.5	25.5	32	0.8	8	36 475 +2G*^	500
630V DC	0.033	5.0	9.0	15	0.6	44	36 333 +2J*^	1000
	0.047	5.5	10.0	15	0.6	44	36 473 +2J*^	1000
	0.068	6.5	11.0	15	0.6	44	36 683 +2J*^	1000
	0.100	8.0	12.0	15	0.6	44	36 104 +2J*^	1000
	0.220	6.0	12.0	27	0.8	22	36 224 +2J*^	500
	0.330	6.5	14.0	27	0.8	22	36 334 +2J*^	500
	0.470	8.0	15.5	27	0.8	22	36 474 +2J*^	500
	0.680	10.0	17.0	27	0.8	22	36 684 +2J*^	500
	0.680	8.5	16.0	32	0.8	12	36 684 +2J*^	500
	1.000	10.0	19.0	32	0.8	12	36 105 +2J*^	500
	1.500	12.0	21.0	32	0.8	12	36 155 +2J*^	500
	2.200	15.0	24.0	32	0.8	12	36 225 +2J*^	500
	3.300	14.5	26.0	32	0.8	12	36 335 +2J*^	500

METALLISED POLYPROPYLENE FLAT AXIAL CAPACITORS
MPP Flat Axial Series

MAIN APPLICATION: Audio circuits, Integrating & filter circuits, SMPS, Timing circuits, etc

CONSTRUCTION (BOX TYPE): Low inductive cell of metallised polypropylene film, axial construction with polyester tape wrapped and end sealed

CLIMATIC CATEGORY: 40/100/21

TEMPERATURE DERATING: Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%

VOLTAGE PROOF: Between terminals: 1.6 times the rated voltage for 2 seconds

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS}	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	>50000 MΩ	>10000s
at 25° C, relative humidity ≤ 70%		

TAN δ:

Frequency (kHz)	0.1 µF < $C_R \leq$ 1 µF	C_R >1 µF
At 1	0.08%	1.0%
At 10	0.1%	-
At 100	0.3%	

LIFE TEST CONDITIONS

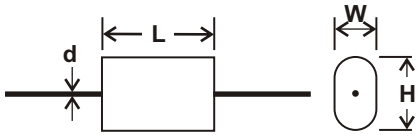
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 85° C for 1000 hours

Criteria after the test:

Δc/c: ≤ 10% of initial value

Change in Tan δ: ≤ 0.003, C_R>1µF

Insulation resistance: ≥ 50% of the value mentioned in IR chart



L≤15 : d=0.6
L>15 : d=0.8

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250V DC	0.0470	4.0	8.0	15	0.6	25	50 473 +2E*^	500
	0.0680	4.5	9.0	15	0.6	25	50 683 +2E*^	500
	0.1000	5.5	9.0	15	0.6	25	50 104 +2E*^	500
	0.1500	6.0	10.5	15	0.6	25	50 154 +2E*^	500
	0.3300	5.0	11.0	27	0.8	10	50 334 +2E*^	500
	0.4700	6.0	12.0	27	0.8	10	50 474 +2E*^	500
	0.6800	13.5	27.0	27	0.8	10	50 684 +2E*^	500
	1.0000	8.0	16.0	27	0.8	10	50 105 +2E*^	500
	1.5000	10.0	18.0	27	0.8	10	50 155 +2E*^	500
400V DC	0.0330	4.5	8.0	15	0.6	32	50 333 +2G*^	500
	0.0470	5.5	9.5	15	0.6	32	50 473 +2G*^	500
	0.0680	5.5	10.0	15	0.6	32	50 683 +2G*^	500
	0.1000	7.0	10.5	15	0.6	32	50 104 +2G*^	500
	0.2200	6.0	10.0	27	0.8	16	50 224 +2G*^	500
	0.3300	6.0	12.0	27	0.8	16	50 334 +2G*^	500
	0.4700	7.0	13.5	27	0.8	16	50 474 +2G*^	500
	0.6800	8.0	16.0	27	0.8	16	50 684 +2G*^	500
	1.0000	10.5	18.5	27	0.8	16	50 105 +2G*^	500
	1.5000	10.0	19.5	32	0.8	9	50 155 +2G*^	500
630V DC	0.0330	5.0	10.0	15	0.6	50	50 333 +2J*^	500
	0.0470	6.0	10.5	15	0.6	50	50 473 +2J*^	500
	0.2200	6.0	14.0	27	0.8	25	50 224 +2J*^	500
	0.3300	8.0	15.0	27	0.8	25	50 334 +2J*^	500
	0.4700	8.5	17.5	27	0.8	25	50 474 +2J*^	500
	0.6800	10.5	20.0	27	0.8	25	50 684 +2J*^	500
	1.0000	11.0	20.5	32	0.8	14	50 105 +2J*^	500
	1.5000	14.0	23.5	32	0.8	14	50 155 +2J*^	500
1000V DC	0.0047	4.5	8.5	15	0.6	75	50 472 +3A*^	500
	0.0068	5.0	9.0	15	0.6	75	50 682 +3A*^	500
	0.0100	6.0	10.0	15	0.6	75	50 103 +3A*^	500
	0.0150	7.0	11.0	15	0.6	75	50 153 +3A*^	500
	0.0330	5.5	11.0	27	0.8	38	50 333 +3A*^	500
	0.0470	5.5	13.0	27	0.8	38	50 473 +3A*^	500
	0.0680	7.0	14.0	27	0.8	38	50 683 +3A*^	500
	0.1000	8.0	15.5	27	0.8	38	50 104 +3A*^	500
	0.1500	9.5	18.5	27	0.8	38	50 154 +3A*^	500
	0.1500	8.5	17.0	32	0.8	19	50 154 +3A*^	500
	0.2200	10.0	19.0	32	0.8	19	50 224 +3A*^	500
	0.3300	12.5	21.5	32	0.8	19	50 334 +3A*^	500

DEKI
Film Capacitor Solutions

PLAIN POLYPROPYLENE + PLAIN POLYESTER FILM (PEP) CAPACITORS (Inductive Type)

MAIN APPLICATION: Oscillator, timing and LC/RC filter circuits, Snubber circuits, high frequency coupling of fast digital and analog ICs. Wherever stable capacitance with respect to frequency and temperature is required. Mainly used in CFL and where stable temperature characteristics are required

CONSTRUCTION (BOX TYPE): Film/foil inductive type construction with aluminum foil as electrode and PET + PP film as mixed dielectric coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/56

RATED TEMPERATURE: 85° C. Between 85° C and 110° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

MAXIMUM OPERATING TEMPERATURE: 110° C

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS}	$C_R \leq 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	100 GΩ

at 25° C, relative humidity ≤ 70%

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±1%, ±2%, ±2.5%, ±5%, ±10%

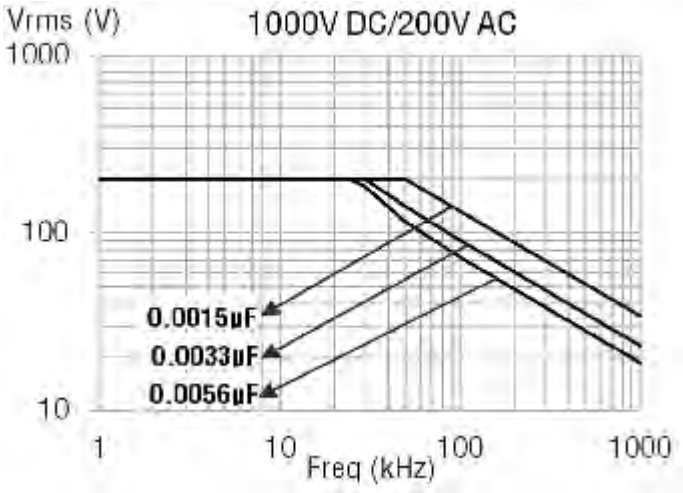
VOLTAGE PROOF: Between terminals: 2 times of rated voltage.

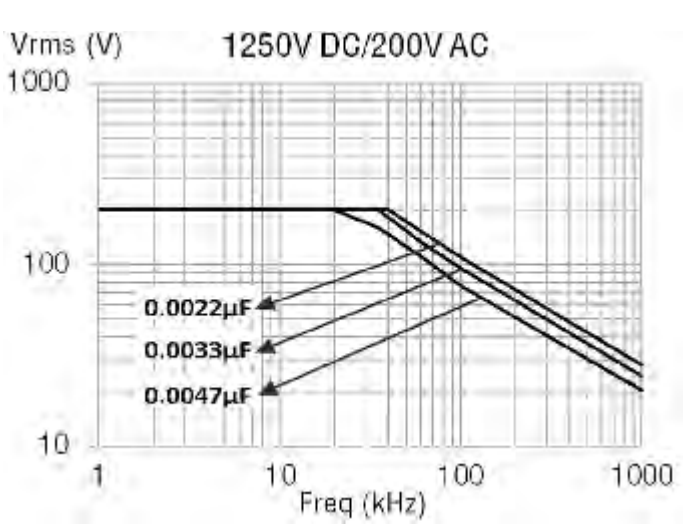
TAN δ: 0.25% (maximum) at 1.0 kHz, 0.50% at 100 kHz

LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C for 1000 hours.
Category voltage is 80% of rated voltage at 100° C

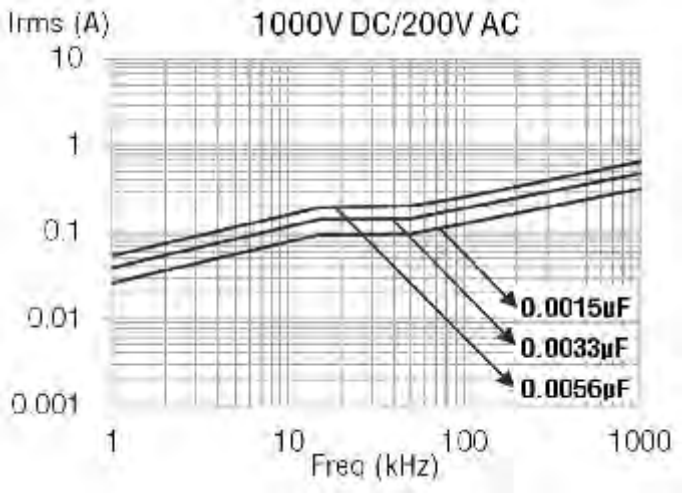
Criteria after the test:
Δc/c: ≤ 3% ±5 pfd of initial value
Change in Tan δ: ≤ 1.4 times the value measured before the test
Insulation resistance: ≥ 50% of the value mentioned in IR chart

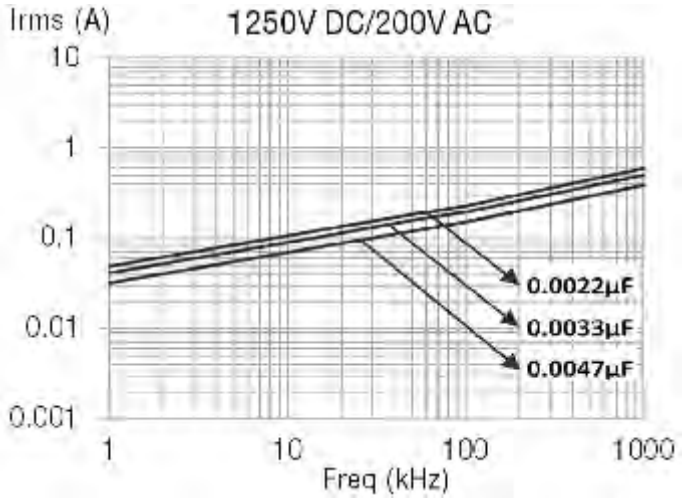
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)





Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

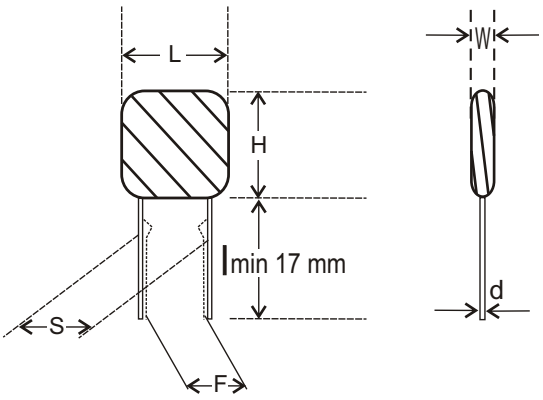




NOTE: The derating curves are based on the actual observed values.

PLAIN POLYPROPYLENE + PLAIN POLYESTER FILM (PEP) CAPACITORS
(Inductive Type) - Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1000V	0.00068	4.0	12.5	7.0	0.5	5.0	5	10000	0.040	38 681 +3A*^	3500	2000
	0.00100	4.0	13.0	7.5	0.5	4.5	5	10000	0.350	38 102 +3A*^	5000	2000
	0.00150	5.0	14.0	8.5	0.5	5.0	5	10000	0.350	38 152 +3A*^	5000	2000
	0.00220	5.0	14.0	8.5	0.5	5.0	5	10000	0.400	38 222 +3A*^	3000	2000
	0.00270	5.5	14.0	8.5	0.5	5.0	5	10000	0.420	38 272 +3A*^	3000	2000
	0.00330	5.5	14.0	8.5	0.5	5.0	5	10000	0.450	38 332 +3A*^	3000	2000
	0.00390	6.5	14.0	9.5	0.5	5.0	5	10000	0.550	38 392 +3A*^	4000	2000
	0.00470	6.5	14.0	9.5	0.5	5.0	5	10000	0.600	38 472 +3A*^	2500	2000
	0.00560	6.5	14.0	9.5	0.5	5.0	5	10000	0.650	38 562 +3A*^	2000	2000
1250V	0.00068	5.0	13.5	8.5	0.5	5.0	5	10000	0.550	38 681 +3B*^	3500	2000
	0.00100	4.0	14.0	7.5	0.5	5.0	5	10000	0.045	38 102 +3B*^	3500	2000
	0.00150	5.0	14.0	8.5	0.5	5.0	5	10000	0.500	38 152 +3B*^	3000	2000
	0.00220	5.0	14.0	8.5	0.5	5.0	5	10000	0.055	38 222 +3B*^	3000	2000
	0.00270	5.5	14.0	8.5	0.5	5.0	5	10000	0.550	38 272 +3B*^	2000	2000
	0.00330	6.0	14.0	9.5	0.5	5.0	5	10000	0.550	38 332 +3B*^	2000	2000
	0.00390	6.5	14.0	9.5	0.5	5.0	5	10000	0.720	38 392 +3B*^	1500	2000
	0.00470	6.5	14.0	9.5	0.5	5.0	5	10000	0.750	38 472 +3B*^	1500	2000
	0.00560	6.5	14.0	9.5	0.5	5.0.	5	10000	0.820	38 562 +3B*^	1500	2000



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Film Capacitor Solutions

PLAIN POLYPROPYLENE FILM CAPACITORS (Inductive)

MAIN APPLICATION: Oscillator, timing and LC/RC filter circuits, high frequency coupling of fast digital and analog ICs

CONSTRUCTION: Film/foil inductive type construction with aluminum foil as electrode and PP film as dielectric coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/56

MAX TEMP RATING: 100° C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-13

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: Between terminals: 2 times of rated voltage for 2 seconds

TAN δ: 0.08% (maximum) at 1 kHz

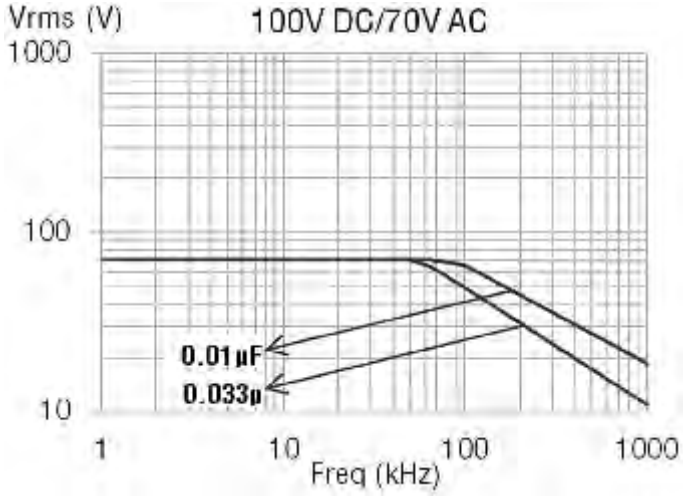
LIFE TEST CONDITIONS:
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C 1000 hours
Category voltage is 80% of rated voltage

Criteria after the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.01 or 1.2 times the value measured before the test, whichever is higher
Insulation resistance: ≥ 50% of the initial value mentioned in IR chart

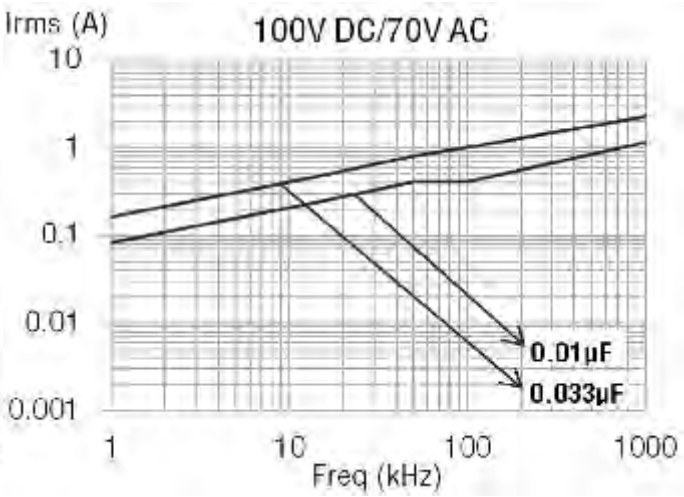
INSULATION RESISTANCE

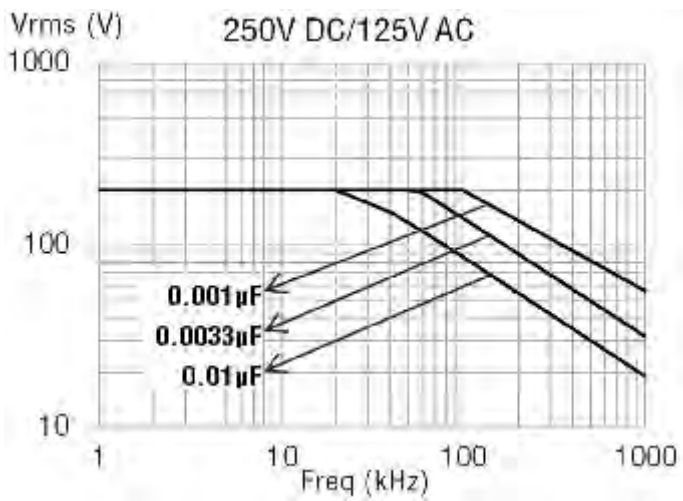
Minimum Insulation Resistance R_{IS}	V_R	$C_R \leq 0.1$ µF	$C_R > 0.1$ µF
(or) time constant $T = C_R \times R_{IS}$	≤ 100 V DC	100 GΩ	10000
at 25° C, relative humidity ≤ 70%	≥ 250 V DC	100 GΩ	10000

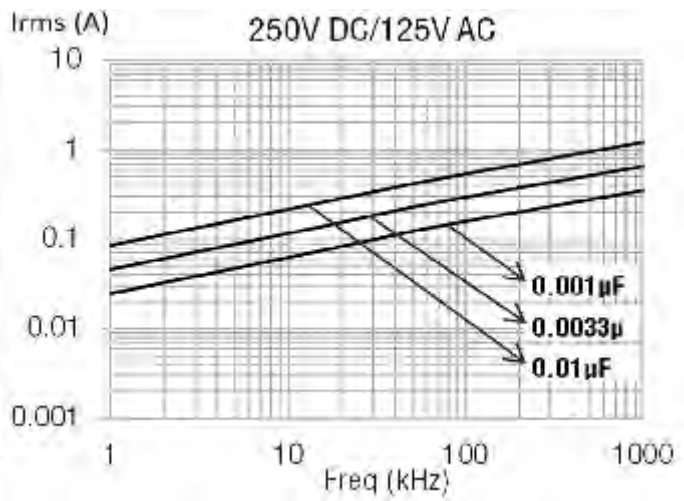
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



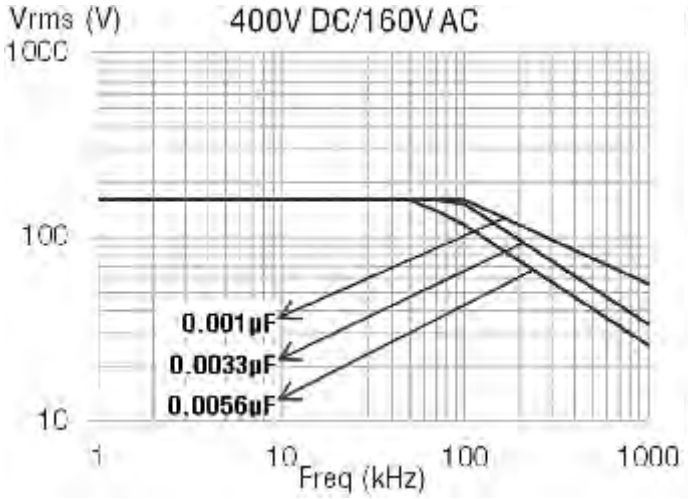
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

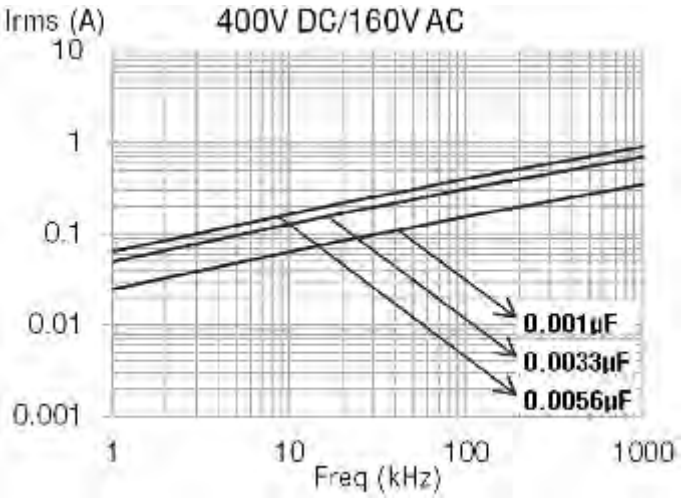


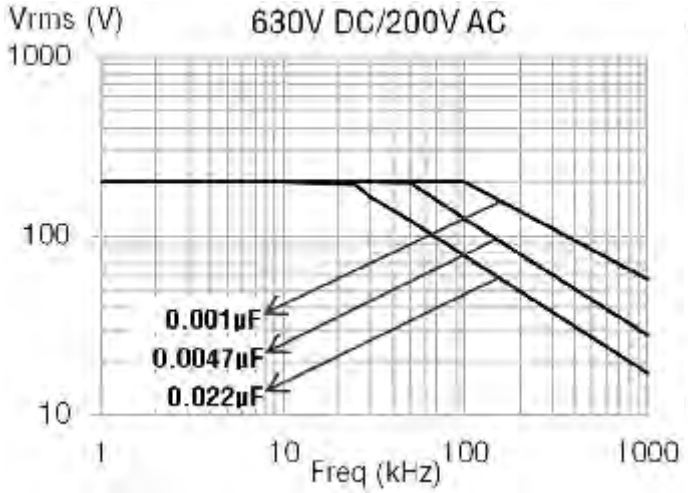


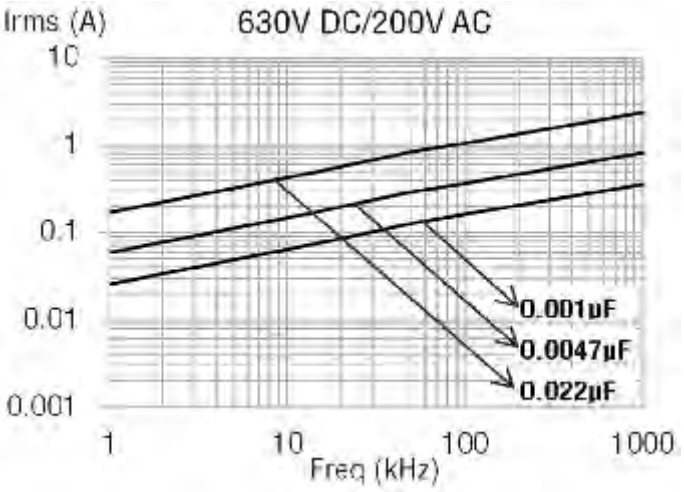


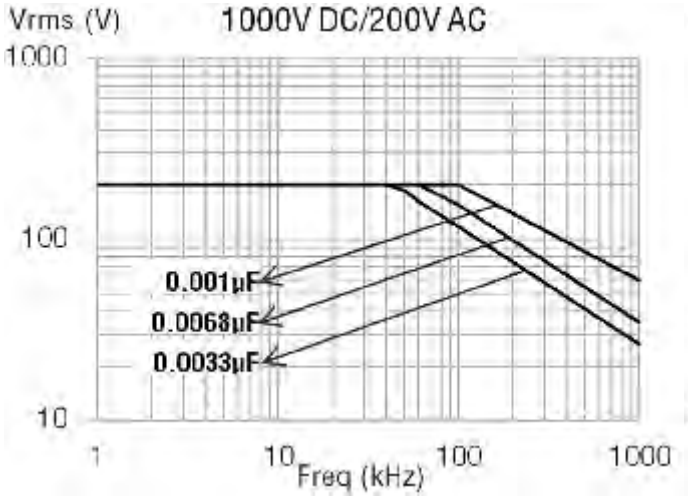
PLAIN POLYPROPYLENE FILM CAPACITORS
(Inductive)

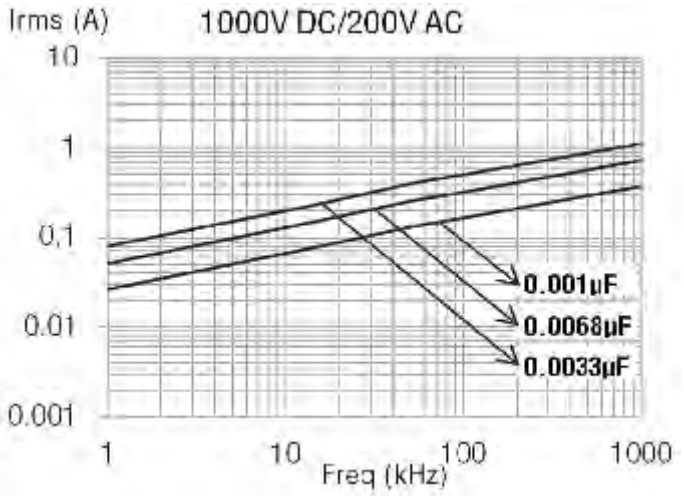












NOTE: The derating curves are based on the actual observed values.

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PLAIN POLYPROPYLENE FILM CAPACITORS (Inductive)

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
100V DC	0.00022	6.5	14	9.5	0.5	5.0	5	10000	0.38	03 221 +2A*^	4000	2000
	0.00027	6.5	14	9.5	0.5	5.0	5	10000	0.40	03 271 +2A*^	3500	2000
	0.00033	6.5	14	9.5	0.5	5.0	5	10000	0.40	03 331 +2A*^	3500	2000
	0.00047	4.5	13	7.5	0.5	4.0	5	10000	0.17	03 471 +2A*^	4500	2000
	0.00068	4.5	12	7.5	0.5	4.0	5	10000	0.19	03 681 +2A*^	4500	2000
	0.00100	4.5	13	7.5	0.5	4.0	5	10000	0.22	03 102 +2A*^	4500	2000
	0.00150	5.0	13	7.5	0.5	4.0	5	10000	0.20	03 152 +2A*^	4500	2000
	0.00220	5.5	13	7.5	0.5	4.0	5	10000	0.20	03 222 +2A*^	4500	2000
	0.00330	5.5	13	7.5	0.5	4.5	5	10000	0.24	03 332 +2A*^	4500	2000
	0.00390	5.5	13	8.0	0.5	4.5	5	10000	0.25	03 392 +2A*^	4500	2000
	0.00470	5.5	13	8.0	0.5	4.5	5	10000	0.28	03 472 +2A*^	4500	2000
	0.00680	5.5	13	8.0	0.5	4.5	5	10000	0.30	03 682 +2A*^	4500	2000
	0.01000	5.5	13	8.5	0.5	5.0	5	10000	0.30	03 103 +2A*^	4500	2000
	0.02200	6.0	13	10.0	0.5	6.0	5	10000	0.35	03 223 +2A*^	4000	2000
	0.03300	6.5	14	10.0	0.5	7.0	5	10000	0.37	03 333 +2A*^	2500	2000
	0.04700	5.5	13	9.5	0.5	7.5	5	10000	0.60	03 473 +2A*^	2000	2000
	0.08200	6.5	14	11.0	0.5	7.5	5	10000	0.82	03 823 +2A*^	2000	1000
	0.10000	8.0	15	12.5	0.5	7.5	5	10000	0.95	03 104 +2A*^	2000	1000
250V DC	0.00022	6.5	14	9.5	0.5	5.0	5	10000	0.38	03 221 +2E*^	4000	2000
	0.00033	6.5	14	9.5	0.5	5.0	5	10000	0.40	03 331 +2E*^	4500	2000
	0.00039	5.5	13	8.5	0.5	5.0	5	10000	0.42	03 391 +2E*^	4500	2000
	0.00047	4.5	12	6.5	0.5	4.0	5	10000	0.17	03 471 +2E*^	4500	2000
	0.00068	4.5	12	6.5	0.5	4.0	5	10000	0.19	03 681 +2E*^	4500	2000
	0.00082	5.5	13	8.5	0.5	4.0	5	10000	0.22	03 821 +2E*^	4500	2000
	0.00100	4.5	13	7.5	0.5	4.0	5	10000	0.22	03 102 +2E*^	4500	2000
	0.00220	5.5	13	7.5	0.5	4.0	5	10000	0.24	03 222 +2E*^	4500	2000
	0.00330	5.5	13	7.5	0.5	4.5	5	10000	0.45	03 332 +2E*^	4500	2000
	0.00470	4.5	12	7.5	0.5	4.5	5	10000	0.85	03 472 +2E*^	4500	2000
	0.00680	4.5	12	7.5	0.5	4.5	5	10000	0.84	03 682 +2E*^	4500	2000
	0.01000	6.0	13	9.5	0.5	5.5	5	10000	0.85	03 103 +2E*^	4000	2000
400V DC	0.00100	4.5	13	7.5	0.5	4.0	5	10000	0.22	03 102 +2G*^	4500	2000
	0.00150	5.0	13	7.5	0.5	4.0	5	10000	0.24	03 152 +2G*^	4500	2000
	0.00220	6.5	13	7.5	0.5	4.0	5	10000	0.24	03 222 +2G*^	4500	2000
	0.00330	6.0	15	8.5	0.5	5.0	5	10000	0.45	03 332 +2G*^	4500	2000
	0.00470	6.0	15	8.5	0.5	5.0	5	10000	0.55	03 472 +2G*^	2500	2000
	0.00560	6.0	15	8.5	0.5	5.5	5	10000	0.60	03 562 +2G*^	2500	2000
630V DC	0.00100	5.5	13	7.5	0.5	4.0	5	10000	0.24	03 102 +2J*^	4500	2000
	0.00150	5.0	13	7.5	0.5	4.0	5	10000	0.36	03 152 +2J*^	4500	2000
	0.00220	5.5	14	8.5	0.5	5.0	5	10000	0.32	03 222 +2J*^	4500	2000
	0.00330	5.0	14	9.5	0.5	5.0	5	10000	0.28	03 332 +2J*^	4000	2000
	0.00470	6.0	13	9.5	0.5	5.0	5	10000	0.45	03 472 +2J*^	2500	2000
	0.00680	6.5	14	10.5	0.5	5.5	5	10000	0.60	03 682 +2J*^	1500	2000
	0.01000	8.0	15	12.5	0.5	7.5	5	10000	0.75	03 103 +2J*^	1500	2000
	0.02200	10.0	20	14.0	0.5	8.5	5	10000	1.12	03 223 +2J*^	1500	1000
1000V DC	0.00100	6.0	14	8.5	0.5	4.5	5	10000	0.28	03 102 +3A*^	4500	2000
	0.00220	6.5	15	9.5	0.5	5.0	5	10000	0.28	03 222 +3A*^	4500	2000
	0.00330	6.5	14	10.0	0.5	5.0	5	10000	0.35	03 332 +3A*^	4000	2000
	0.00470	8.0	15	11.0	0.5	5.0	5	10000	0.36	03 472 +3A*^	2500	2000
	0.00680	8.0	15	11.5	0.5	5.0	5	10000	0.55	03 682 +3A*^	2500	2000

PLAIN POLYPROPYLENE FILM CAPACITORS (Non Inductive)

MAIN APPLICATION: Oscillator, timing and LC/RC filter circuits, high frequency coupling of fast digital and analog ICs

CONSTRUCTION (DIP/BOX TYPE): Film/foil inductive type construction with aluminum foil as electrode and PP film as dielectric coated with flame retardant epoxy resin

CLIMATIC CATEGORY: 40/100/56

APPLICABLE SPECIFICATION: IEC 384-13

MAX TEMP RATING: 100° C. Between 85° C and 100° C, a voltage derating of 1.25% per ° C on the rated voltage has to be applied

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

VOLTAGE PROOF: Between terminals: 2 times of rated voltage for 2 seconds

CAPACITANCE TOLERANCE: ±1%, ±2%, ±2.5%, ±5%, ±10%

TAN δ AT 20°C: 0.1% (maximum) at 10 kHz

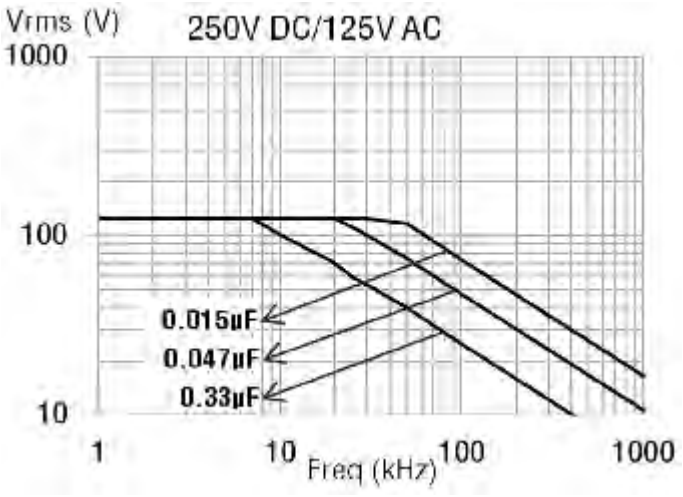
LIFE TEST CONDITIONS
(Loading at elevated temperature)
Loaded at 1.5 times of rated voltage at 85° C or 1.5 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of rated voltage

Criteria after the test:
Δc/c: ≤ 3% ±5 pfd of initial value
Change in Tan δ: ≤ 1.4 times the value measured before the test
Insulation resistance: ≥ 50% of the value mentioned in IR chart

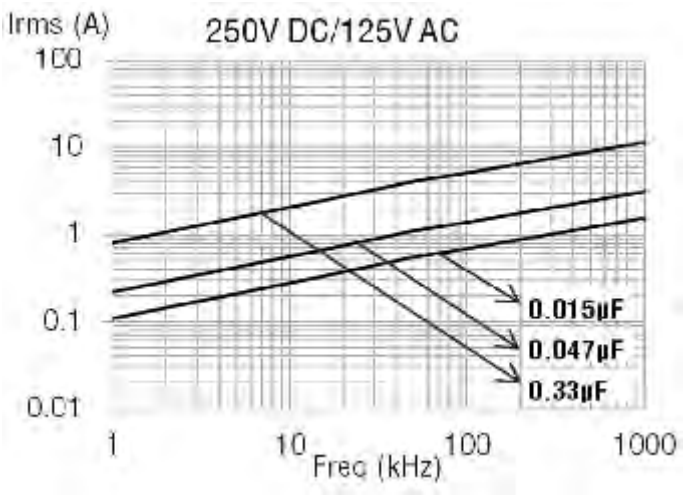
APPROVALS: Capacitors are tested at ERTL (North) as per IEC 384-13 and approved by CACT for telecom application

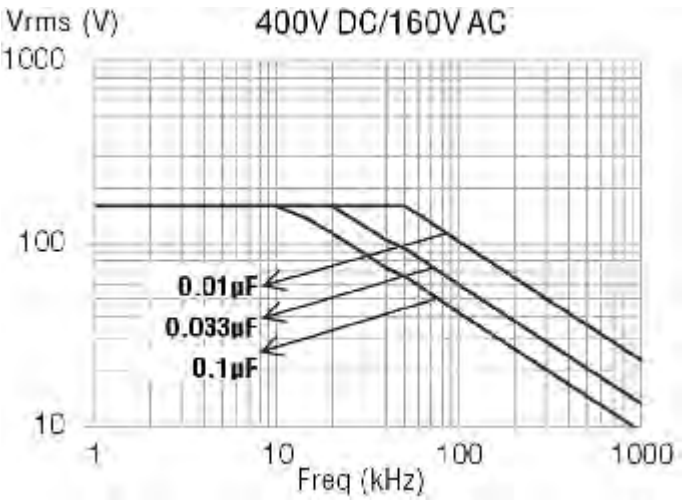
INSULATION RESISTANCE
Minimum insulation resistance between terminals: 100 GΩ at 25° C, relative humidity ≤70%

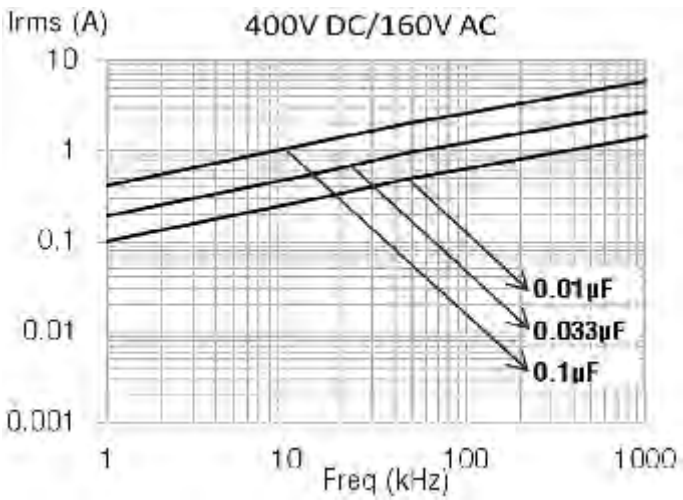
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

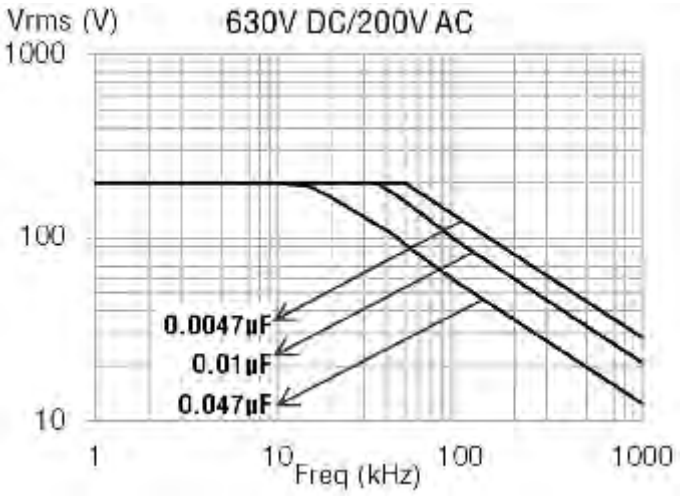


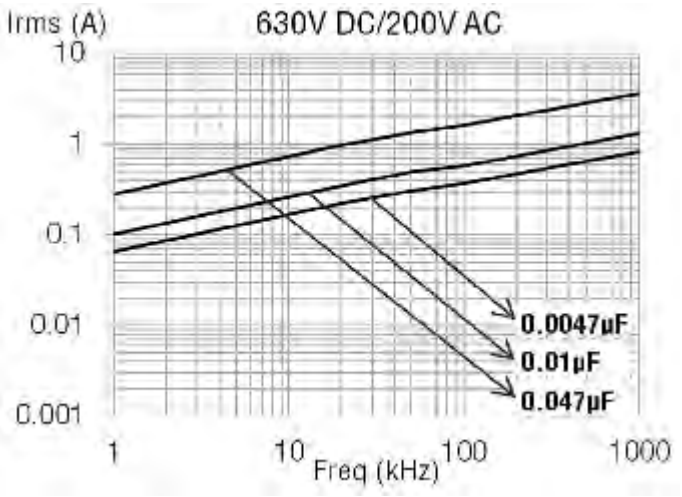
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)









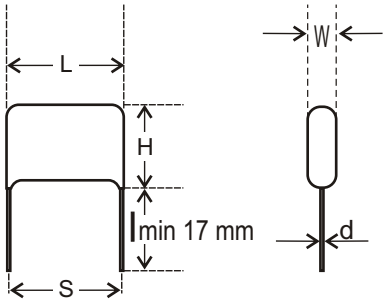


Note: The derating curves are based on the approximate actual values of tanδ rather than the theoretical values.

PLAIN POLYPROPYLENE FILM CAPACITORS

(Non Inductive) Ordering codes and packaging units - *Dip Type*

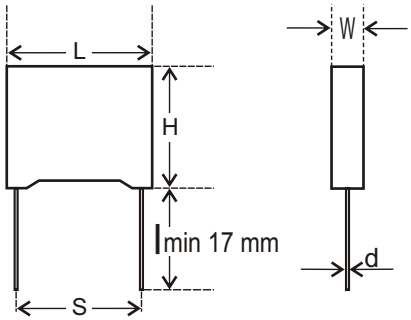
Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
250V DC	0.0150	6.0	11.0	14	0.6	10.0	10	10000	0.5	32 153 +2E*^	2000	1100
	0.0220	5.5	10.5	19	0.8	15.0	15	10000	0.7	32 223 +2E*^	1000	1100
	0.0330	6.0	11.0	19	0.8	15.0	15	10000	0.9	32 333 +2E*^	1000	1100
	0.0470	6.0	13.5	19	0.8	15.0	15	10000	1.2	32 473 +2E*^	1000	1100
	0.1000	6.5	15.5	27	0.8	22.5	-	10000	1.6	32 104 +2E*^	400	650
	0.2200	9.0	18.0	27	0.8	22.5	-	10000	1.8	32 224 +2E*^	400	450
	0.3300	11.0	20.5	27	0.8	22.5	-	10000	2.1	32 334 +2E*^	400	380
	0.4700	13.5	22.5	27	0.8	22.5	-	10000	3.8	32 474 +2E*^	400	-
400V DC	0.0100	6.0	13.5	19	0.8	15.0	15	10000	0.5	32 103 +2G*^	1000	1100
	0.0150	6.0	13.5	19	0.8	15.0	15	10000	0.6	32 153 +2G*^	1000	1100
	0.0220	6.0	13.5	19	0.8	15.0	15	10000	0.8	32 223 +2G*^	1000	1100
	0.0330	7.0	15.0	19	0.8	15.0	15	10000	1.1	32 333 +2G*^	1000	950
	0.0470	8.0	17.0	19	0.8	15.0	15	10000	1.4	32 473 +2G*^	1000	800
	0.1000	9.0	18.0	27	0.8	22.5	-	10000	2.7	32 104 +2G*^	400	450
	0.2200	11.5	21.0	32	0.8	27.5	-	10000	4.5	32 224 +2G*^	200	-
630V DC	0.0022	5.5	10.5	14	0.6	10.0	10	10000	0.7	32 222 +2J*^	2000	1100
	0.0047	6.5	13.5	14	0.6	10.0	10	10000	0.9	32 472 +2J*^	2000	1100
	0.0056	5.5	12.0	19	0.8	15.0	15	10000	1.2	32 682 +2J*^	1000	1100
	0.0100	6.0	13.5	19	0.8	15.0	15	10000	1.5	32 103 +2J*^	1000	1100
	0.0220	8.0	17.0	19	0.8	15.0	15	10000	2.0	32 223 +2J*^	1000	800
	0.0470	9.0	18.0	27	0.8	22.5	-	10000	2.8	32 473 +2J*^	400	450
	0.1000	11.5	21.0	32	0.8	27.5	-	10000	3.5	32 104 +2J*^	200	-



PLAIN POLYPROPYLENE FILM CAPACITORS

(Non Inductive) Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
250V DC	0.0033	4.0	9.0	13	0.6	10	10	9900	0.6	21 332 +2E*^	2000	1100
	0.0047	4.0	9.0	13	0.6	10	10	9900	0.6	21 472 +2E*^	2000	1100
	0.0068	5.0	11.0	13	0.6	10	10	9900	0.8	21 682 +2E*^	2000	1100
	0.0100	6.0	12.0	13	0.6	10	10	9900	0.9	21 103 +2E*^	1100	1000
	0.0150	5.0	10.8	18	0.8	15	15	4800	1.1	21 153 +2E*^	1100	1000
	0.0220	6.0	11.9	18	0.8	15	15	4800	1.5	21 223 +2E*^	1100	1000
	0.0330	7.5	13.5	18	0.8	15	15	4800	2.0	21 333 +2E*^	900	1000
	0.0470	10.0	16.0	18	0.8	15	15	4800	2.8	21 473 +2E*^	700	1000
400V DC	0.0022	4.0	9.0	13	0.6	10	10	12000	0.6	21 222 +2G*^	2000	1100
	0.0033	5.0	11.0	13	0.6	10	10	12000	0.8	21 332 +2G*^	2000	1100
	0.0047	5.0	11.0	13	0.6	10	10	12000	0.8	21 472 +2G*^	2000	1100
	0.0068	6.0	12.0	13	0.6	10	10	12000	0.9	21 682 +2G*^	2000	1100
	0.0100	5.0	10.8	18	0.8	15	15	6000	1.1	21 103 +2G*^	1100	1000
	0.0150	6.0	11.9	18	0.8	15	15	6000	1.5	21 153 +2G*^	1100	1000
	0.0220	7.5	13.5	18	0.8	15	15	6000	2.0	21 223 +2G*^	900	1000
	0.0330	8.5	14.5	18	0.8	15	15	6000	2.6	21 333 +2G*^	700	1000
	0.0470	10.0	16.0	18	0.8	15	15	6000	2.8	21 473 +2G*^	700	1000
630V DC	0.0022	5.0	11.0	13	0.6	10	10	15000	0.8	21 222 +2J*^	2000	1100
	0.0033	6.0	12.0	13	0.6	10	10	15000	0.9	21 332 +2J*^	2000	1100
	0.0047	6.0	12.0	13	0.6	10	10	15000	0.9	21 472 +2J*^	2000	1100
	0.0100	5.0	10.8	18	0.8	15	15	11000	1.1	21 103 +2J*^	1100	1000
	0.0120	5.0	10.8	18	0.8	15	15	11000	1.1	21 123 +2J*^	1100	1000
	0.0150	6.0	11.9	18	0.8	15	15	11000	1.5	21 153 +2J*^	1100	1000
	0.0180	6.0	11.9	18	0.8	15	15	11000	1.5	21 183 +2J*^	1100	1000
	0.0220	7.5	13.5	18	0.8	15	15	11000	2.0	21 223 +2J*^	900	1000
	0.0270	7.5	13.5	18	0.8	15	15	11000	2.0	21 273 +2J*^	900	1000
	0.0330	8.5	14.5	18	0.8	15	15	11000	2.6	21 333 +2J*^	700	1000
	0.0390	10.0	16.0	18	0.8	15	15	11000	2.8	21 393 +2J*^	700	1000



DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (PP/MPP Series)

MAIN APPLICATION: SMPS, motor control circuits, deflection circuit in TV sets (fly back) and monitors, electronic ballast, snubber and SCR commutating circuits and applications with high voltage and high current

CONSTRUCTION (DIP/BOX TYPE): Series constructed, impregnated polypropylene film, aluminum foil and metallised polypropylene film as internal electrodes. Protected by hard, water repellant, solvent resistant epoxy resin (or, encased in flame retardant box)

CLIMATIC CATEGORY: 40/100/56

TEMPERATURE DERATING: Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16, 384-17

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±2% , ±5% , ±10%

VOLTAGE PROOF: Between terminals: 2 times of rated voltage for 2 seconds

INSULATION RESISTANCE
Between leads > 100000 MΩ
Between interconnected leads and case >100000 MΩ

TAN δ AT 20°C (Dip type)

Frequency (kHz)	C_R < 0.1 µf	0.1 µf < C_R ≤ 1 µf
At 1	0.05%	0.08%
At 10	0.1%	0.1%
At 100	0.3%	0.5%

LIFE TEST CONDITIONS - DC (Loading at elevated temp.):
Loaded at 1.25 times of rated DC voltage at 85° C for 1000 hours

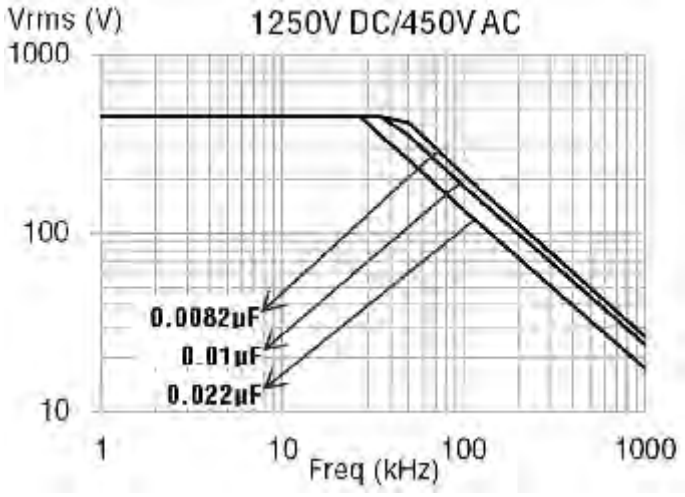
AFTER THE TEST
Δc/c: ≤ 2% of initial value
Change in Tan δ: 0.002
Insulation resistance: ≥ 50% of the value mentioned in IR chart

LIFE TEST CONDITIONS - AC (Loading at elevated temp.):
Loaded at 1.25 times of rated AC voltage at 70° C for 1000 hours

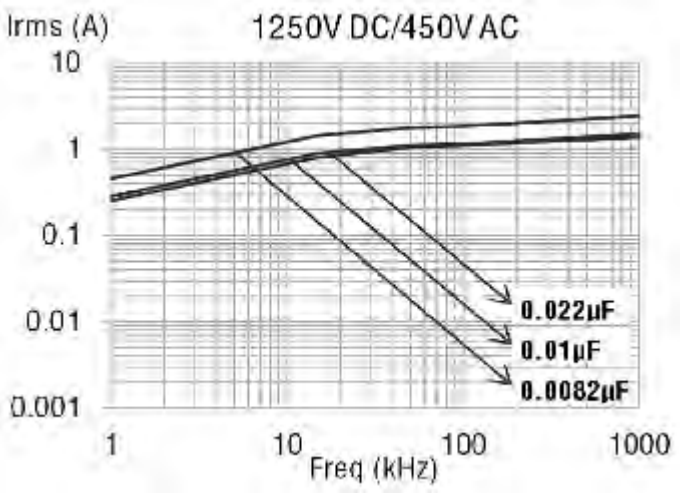
AFTER THE TEST
Δc/c: ≤ 3% of initial value
Change in Tan δ: ≤ 0.002, C_R ≤ 1 µf
Insulation resistance: ≥ 50% of the value mentioned in IR chart

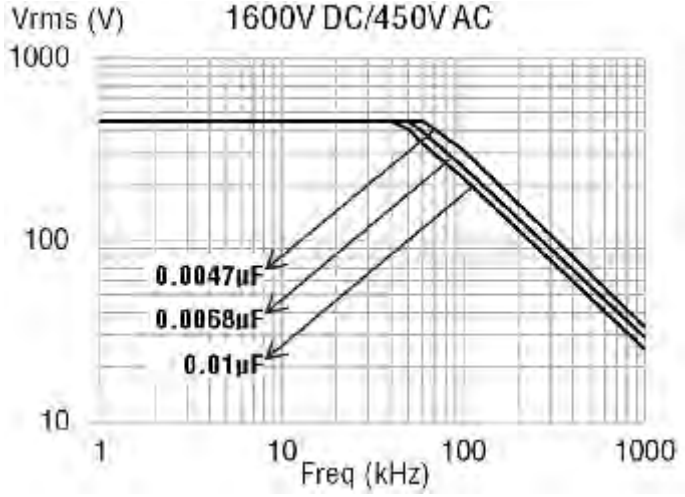
APPROVALS: Tested as per IEC 384-16, 384–17

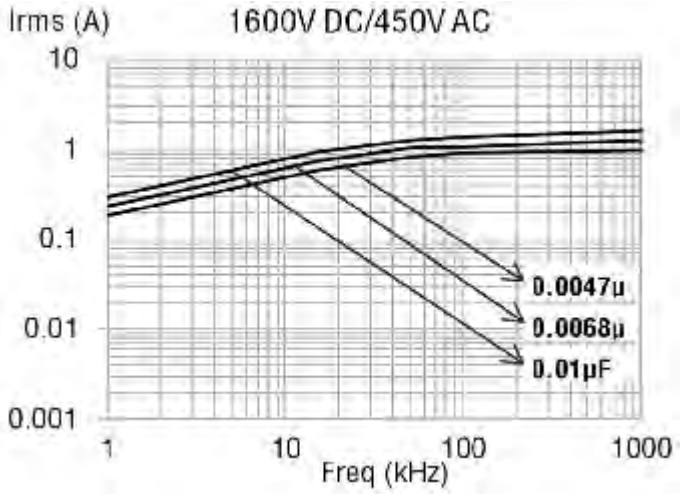
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

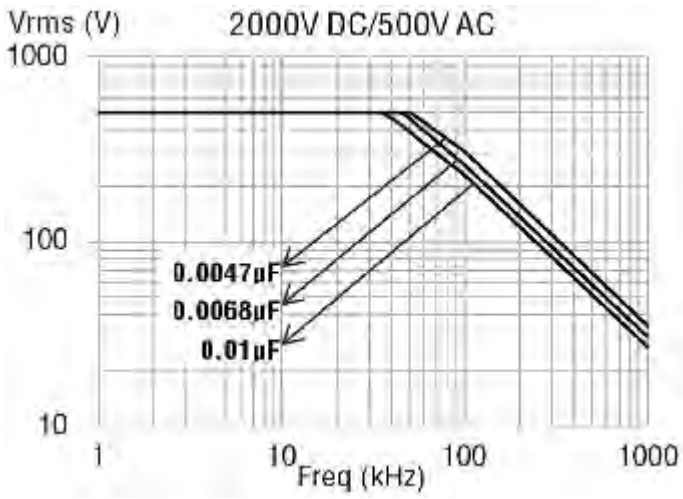




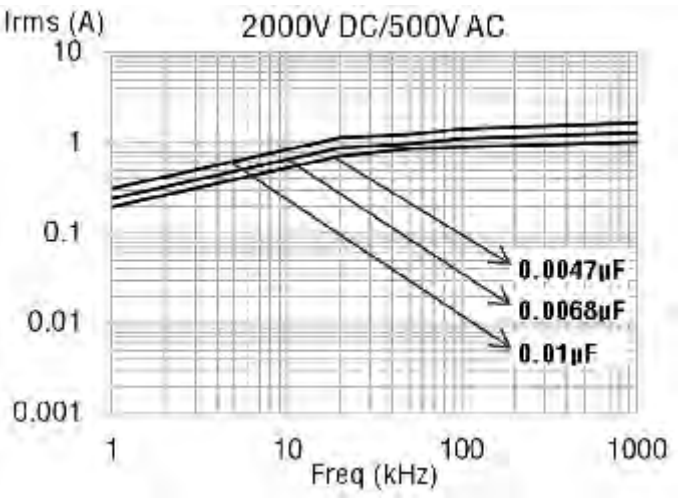


AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (PP/MPP Series)

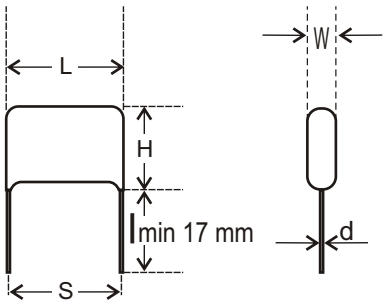
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

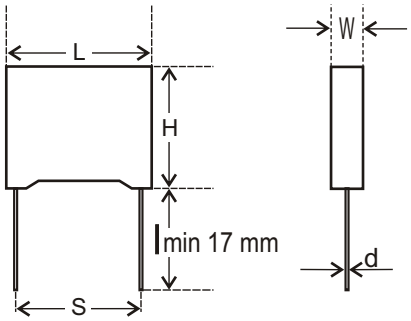


Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



NOTE: The derating curves are based on the actual observed values.





DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS
(PP/MPP Series) Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1000V DC	0.00330	5.5	11.5	19	0.8	15.0	15.0	28000	1.1	05 332+3A*^	1000	1000
400V AC	0.00390	5.5	11.5	19	0.8	15.0	15.0	28000	1.1	05 392 +3A*^	1000	1000
	0.00470	5.5	11.5	19	0.8	15.0	15.0	28000	1.1	05 472 +3A*^	1000	1000
	0.00560	5.5	11.5	19	0.8	15.0	15.0	28000	1.1	05 562 +3A*^	1000	1000
	0.00680	5.5	11.5	19	0.8	15.0	15.0	28000	1.1	05 682 +3A*^	1000	1000
	0.00820	5.5	11.5	19	0.8	15.0	15.0	28000	1.5	05 822 +3A*^	1000	1000
	0.01000	6.5	12.5	19	0.8	15.0	15.0	28000	1.5	05 103 +3A*^	1000	1000
	0.01200	6.5	12.5	19	0.8	15.0	15.0	28000	1.5	05 123 +3A*^	1000	1000
	0.01500	8.0	14.0	19	0.8	15.0	15.0	28000	2.6	05 153 +3A*^	1000	1000
	0.01800	9.0	15.0	19	0.8	15.0	15.0	28000	2.6	05 183 +3A*^	1000	1000
	0.02200	9.0	15.0	19	0.8	15.0	15.0	28000	3.0	05 223 +3A*^	1000	1000
	0.02700	10.5	16.5	19	0.8	15.0	15.0	28000	3.5	05 273 +3A*^	1000	1000
	0.01500	6.5	15.5	27	0.8	22.5	22.5	11000	2.4	05 153 +3A*^	-	400
	0.01800	6.5	15.5	27	0.8	22.5	22.5	11000	2.5	05 183 +3A*^	-	400
	0.02200	6.5	15.5	27	0.8	22.5	22.5	11000	2.7	05 223 +3A*^	-	400
	0.02700	7.5	16.5	27	0.8	22.5	22.5	11000	3.2	05 273 +3A*^	-	400
	0.03300	7.5	16.5	27	0.8	22.5	22.5	11000	3.5	05 333 +3A*^	-	400
	0.03900	9.0	17.5	27	0.8	22.5	22.5	11000	3.8	05 393 +3A*^	-	400
	0.04700	9.0	17.5	27	0.8	22.5	22.5	11000	4.2	05 473 +3A*^	-	400
	0.05600	10.5	19.0	27	0.8	22.5	22.5	11000	4.7	05 563 +3A*^	-	400
	0.06800	10.5	19.0	27	0.8	22.5	22.5	11000	5.3	05 683 +3A*^	-	400
1250V DC	0.00220	5.5	11.5	19	0.8	15.0	15.0	30000	1.1	05 222 +3B*^	1000	1000
450V AC	0.00270	5.5	11.5	19	0.8	15.0	15.0	30000	1.1	05 272 +3B*^	1000	1000
	0.00330	6.5	12.5	19	0.8	15.0	15.0	30000	1.1	05 332 +3B*^	1000	1000
	0.00390	6.5	12.5	19	0.8	15.0	15.0	30000	1.1	05 392 +3B*^	1000	1000
	0.00470	8.0	14.0	19	0.8	15.0	15.0	30000	1.1	05 472 +3B*^	1000	1000
	0.00560	8.0	14.0	19	0.8	15.0	15.0	30000	1.5	05 562 +3B*^	1000	1000
	0.00680	9.0	5.0	19	0.8	15.0	15.0	30000	1.5	05 682 +3B*^	1000	1000
	0.00820	10.5	16.5	19	0.8	15.0	15.0	30000	1.5	05 822 +3B*^	1000	1000
	0.00820	6.5	15.5	27	0.8	22.5	22.5	11000	2.2	05 822 +3B*^	-	400
	0.01000	6.5	15.5	27	0.8	22.5	22.5	11000	2.3	05 103 +3B*^	-	400
	0.01200	6.5	15.5	27	0.8	22.5	22.5	11000	2.5	05 123 +3B*^	-	400
	0.01500	7.5	16.5	27	0.8	22.5	22.5	11000	2.9	05 153 +3B*^	-	400
	0.01800	7.5	16.5	27	0.8	22.5	22.5	11000	3.1	05 183 +3B*^	-	400
	0.02200	9.0	17.5	27	0.8	22.5	22.5	11000	3.3	05 223 +3B*^	-	400
	0.02700	10.5	18.5	27	0.8	22.5	22.5	11000	3.7	05 273 +3B*^	-	400
	0.03300	10.5	18.5	27	0.8	22.5	22.5	11000	4.1	05 333 +3B*^	-	400
1600V DC	0.00100	5.5	11.5	19	0.8	15.0	15.0	34000	1.1	05 102 +3C*^	1000	1000
450V AC	0.00120	5.5	11.5	19	0.8	15.0	15.0	34000	1.1	05 122 +3C*^	1000	1000
	0.00150	5.5	11.5	19	0.8	15.0	15.0	34000	1.1	05 152 +3C*^	1000	1000
	0.00180	5.5	11.5	19	0.8	15.0	15.0	34000	1.1	05 182 +3C*^	1000	1000
	0.00220	6.5	12.5	19	0.8	15.0	15.0	34000	1.5	05 222 +3C*^	1000	1000
	0.00270	6.5	12.5	19	0.8	15.0	15.0	34000	1.5	05 272 +3C*^	1000	1000
	0.00330	8.0	14.0	19	0.8	15.0	15.0	34000	1.5	05 332 +3C*^	1000	1000
	0.00390	8.0	14.0	19	0.8	15.0	15.0	34000	2.3	05 392 +3C*^	1000	1000
	0.00470	9.0	15.0	19	0.8	15.0	15.0	34000	2.4	05 472 +3C*^	1000	1000
	0.00560	10.5	16.5	19	0.8	15.0	15.0	34000	2.6	05 562 +3C*^	1000	1000
	0.00680	10.5	16.5	19	0.8	15.0	15.0	34000	3.0	05 682 +3C*^	1000	1000
	0.00560	6.5	26.5	27	0.8	22.5	22.5	11000	2.4	05 562 +3C*^	-	400
	0.00680	6.5	26.5	27	0.8	22.5	22.5	11000	2.5	05 682 +3C*^	-	400
	0.00820	6.5	26.5	27	0.8	22.5	22.5	11000	2.7	05 822 +3C*^	-	400
	0.01000	6.5	26.5	27	0.8	22.5	22.5	11000	2.9	05 103 +3C*^	-	400
	0.01200	7.5	16.5	27	0.8	22.5	22.5	11000	3.2	05 123 +3C*^	-	400
	0.01500	9.0	17.5	27	0.8	22.5	22.5	11000	3.8	05 153 +3C*^	-	400
	0.01800	9.0	17.5	27	0.8	22.5	22.5	11000	4.2	05 183 +3C*^	-	400
	0.02200	10.5	18.5	27	0.8	22.5	22.5	11000	4.7	05 223 +3C*^	-	400
2000V DC	0.00010	5.0	10.0	19	0.8	15.0	15.0	54000	1.1	05 101 +3D*^	1000	1000
500V AC	0.00015	5.0	10.0	19	0.8	15.0	15.0	54000	1.1	05 151 +3D*^	1000	1000
	0.00022	5.0	10.0	19	0.8	15.0	15.0	54000	1.1	05 221 +3D*^	1000	1000
	0.00033	5.0	10.0	19	0.8	15.0	15.0	54000	1.1	05 331 +3D*^	1000	1000
	0.00047	5.0	10.0	19	0.8	15.0	15.0	54000	1.1	05 471 +3D*^	1000	1000
	0.00068	5.5	11.5	19	0.8	15.0	15.0	54000	1.1	05 681 +3D*^	1000	1000
	0.00100	6.5	12.5	19	0.8	15.0	15.0	54000	1.5	05 102 +3D*^	1000	1000
	0.00120	6.5	12.5	19	0.8	15.0	15.0	54000	1.5	05 122 +3D*^	1000	1000
	0.00150	8.0	14.0	19	0.8	15.0	15.0	54000	1.5	05 152 +3D*^	1000	1000
	0.00180	8.0	14.0	19	0.8	15.0	15.0	54000	1.5	05 182 +3D*^	1000	1000
	0.00220	9.0	15.0	19	0.8	15.0	15.0	54000	2.2	05 222 +3D*^	1000	1000
	0.00270	10.5	16.5	19	0.8	15.0	15.0	54000	2.4	05 272 +3D*^	1000	1000
	0.00270	6.5	15.5	27	0.8	22.5	22.5	11000	2.2	05 272 +3D*^	-	400
	0.00330	6.5	15.5	27	0.8	22.5	22.5	11000	2.3	05 332 +3D*^	-	400
	0.00390	6.5	15.5	27	0.8	22.5	22.5	11000	2.4	05 392 +3D*^	-	400
	0.00470	7.5	16.5	27	0.8	22.5	22.5	11000	2.7	05 472 +3D*^	-	400
	0.00560	7.5	16.5	27	0.8	22.5	22.5	11000	2.9	05 562 +3D*^	-	400
	0.00680	9.0	17.5	27	0.8	22.5	22.5	11000	3.1	05 682 +3D*^	-	400
	0.00820	9.0	17.5	27	0.8	22.5	22.5	11000	3.3	05 822 +3D*^	-	400
	0.01000	10.5	19.0	27	0.8	22.5	22.5	11000	3.7	05 103 +3D*^	-	400
	0.01200	10.5	19.0	27	0.8	22.5	22.5	11000	4.0	05 123 +3D*^	-	400

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS

(PP/MPP Series) Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1000V DC	0.00330	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 332 +3A*^	1000	500
40V AC	0.00390	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 392 +3A*^	1000	500
	0.00470	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 472 +3A*^	1000	500
	0.00560	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 562 +3A*^	1000	500
	0.00680	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 682 +3A*^	1000	500
	0.00820	5.0	10.8	18.0	0.8	15.0	15.0	28000	1.1	29 822 +3A*^	1000	500
	0.01000	6.0	11.0	18.0	0.8	15.0	15.0	28000	1.5	29 103 +3A*^	1000	500
	0.01200	6.0	11.5	18.0	0.8	15.0	15.0	28000	1.5	29 123 +3A*^	1000	500
	0.01500	7.5	13.5	18.0	0.8	15.0	15.0	28000	2.0	29 153 +3A*^	1000	500
	0.01800	8.5	14.5	18.0	0.8	15.0	15.0	28000	2.6	29 183 +3A*^	1000	500
	0.02200	8.5	14.5	18.0	0.8	15.0	15.0	28000	3.0	29 223 +3A*^	1000	500
	0.02700	10.0	16.0	18.0	0.8	15.0	15.0	28000	3.5	29 273 +3A*^	1000	500
	0.01500	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.4	29 153 +3A*^	-	400
	0.01800	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.5	29 183 +3A*^	-	400
	0.02200	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.7	29 223 +3A*^	-	400
	0.02700	7.0	16.0	26.5	0.8	22.5	22.5	11000	3.2	29 273 +3A*^	-	400
	0.03300	7.0	16.0	26.5	0.8	22.5	22.5	11000	3.5	29 333 +3A*^	-	400
	0.03900	8.5	17.0	26.5	0.8	22.5	22.5	11000	3.8	29 393 +3A*^	-	400
	0.04700	8.5	17.0	26.5	0.8	22.5	22.5	11000	4.2	29 473 +3A*^	-	400
	0.05600	10.0	18.5	26.5	0.8	22.5	22.5	11000	4.7	29 563 +3A*^	-	400
1250V DC	0.00220	5.0	10.8	18.0	0.8	22.5	22.5	11000	1.1	29 222 +3B*^	1000	400
450V AC	0.00270	5.0	10.8	18.0	0.8	15.0	15.0	30000	1.1	29 272 +3B*^	1000	500
	0.00330	6.0	11.9	18.0	0.8	15.0	15.0	30000	1.5	29 332 +3B*^	1000	500
	0.00390	6.0	11.9	18.0	0.8	15.0	15.0	30000	1.5	29 392 +3B*^	1000	500
	0.00470	7.5	13.5	18.0	0.8	15.0	15.0	30000	1.9	29 472 +3B*^	1000	500
	0.00560	7.5	13.5	18.0	0.8	15.0	15.0	30000	1.9	29 562 +3B*^	1000	500
	0.00680	8.5	14.5	18.0	0.8	15.0	15.0	30000	2.0	29 682 +3B*^	1000	500
	0.00820	10.0	16.0	18.0	0.8	15.0	15.0	30000	2.2	29 822 +3B*^	1000	500
	0.00820	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.2	29 822 +3B*^	-	400
	0.01000	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.3	29 103 +3B*^	-	400
	0.01200	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.5	29 123 +3B*^	-	400
	0.01500	7.0	16.0	26.5	0.8	22.5	22.5	11000	2.9	29 153 +3B*^	-	400
	0.01800	7.0	16.0	26.5	0.8	22.5	22.5	11000	3.1	29 183 +3B*^	-	400
	0.02200	8.5	17.0	26.5	0.8	22.5	22.5	11000	3.3	29 223 +3B*^	-	400
	0.02700	10.0	18.5	26.5	0.8	22.5	22.5	11000	3.7	29 273 +3B*^	-	400
	0.03300	10.0	18.5	26.5	0.8	22.5	22.5	11000	4.1	29 333 +3B*^	-	400
1600V DC	0.00100	5.0	10.8	18.0	0.8	15.0	15.0	34000	1.1	29 102 +3C*^	1000	500
450V AC	0.00120	5.0	10.8	18.0	0.8	15.0	15.0	34000	1.1	29 122 +3C*^	1000	500
	0.00150	5.0	10.8	18.0	0.8	15.0	15.0	34000	1.1	29 152 +3C*^	1000	500
	0.00180	5.0	10.8	18.0	0.8	15.0	15.0	34000	1.1	29 182 +3C*^	1000	500
	0.00220	6.0	11.9	18.0	0.8	15.0	15.0	34000	1.5	29 222 +3C*^	1000	500
	0.00270	6.0	11.9	18.0	0.8	15.0	15.0	34000	1.5	29 272 +3C*^	1000	500
	0.00330	7.5	13.5	18.0	0.8	15.0	15.0	34000	2.1	29 332 +3C*^	1000	500
	0.00390	7.5	13.5	18.0	0.8	15.0	15.0	34000	2.3	29 392 +3C*^	1000	500
	0.00470	8.5	14.5	18.0	0.8	15.0	15.0	34000	2.4	29 472 +3C*^	1000	500
	0.00560	10.0	16.0	18.0	0.8	15.0	15.0	11000	2.6	29 562 +3C*^	1000	500
	0.00680	10.0	16.0	18.0	0.8	15.0	15.0	34000	3.0	29 682 +3C*^	1000	500
	0.00560	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.4	29 562 +3C*^	-	400
	0.00680	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.5	29 682 +3C*^	-	400
	0.00820	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.7	29 822 +3C*^	-	400
	0.01000	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.9	29 103 +3C*^	-	400
	0.01200	7.0	16.0	26.5	0.8	22.5	22.5	11000	3.2	29 123 +3C*^	-	400
	0.01500	8.5	17.0	26.5	0.8	22.5	22.5	11000	3.8	29 153 +3C*^	-	400
	0.01800	8.5	17.0	26.5	0.8	22.5	22.5	11000	4.2	29 183 +3C*^	-	400
	0.02200	10.0	18.5	26.5	0.8	22.5	22.5	11000	4.7	29 223 +3C*^	-	400
2000V DC	0.00010	5.0	10.8	18.0	0.8	15.0	15.0	11000	1.1	29 101 +3D*^	1000	500
500V AC	0.00015	5.0	10.8	18.0	0.8	15.0	15.0	54000	1.1	29 151 +3D*^	1000	500
	0.00022	5.0	10.8	18.0	0.8	15.0	15.0	54000	1.1	29 221 +3D*^	1000	500
	0.00033	5.0	10.8	18.0	0.8	15.0	15.0	54000	1.1	29 331 +3D*^	1000	500
	0.00047	5.0	10.8	18.0	0.8	15.0	15.0	54000	1.1	29 471 +3D*^	1000	500
	0.00068	5.0	10.8	18.0	0.8	15.0	15.0	54000	1.1	29 681 +3D*^	1000	500
	0.00100	6.0	11.9	19.0	0.8	15.0	15.0	54000	1.5	29 102 +3D*^	1000	500
	0.00120	6.0	11.9	19.0	0.8	15.0	15.0	54000	1.5	29 122 +3D*^	1000	500
	0.00150	7.5	13.5	19.0	0.8	15.0	15.0	54000	1.9	29 152 +3D*^	1000	500
	0.00180	7.5	13.5	19.0	0.8	15.0	15.0	54000	2.0	29 182 +3D*^	1000	500
	0.00220	8.5	14.5	19.0	0.8	15.0	15.0	54000	2.2	29 222 +3D*^	1000	500
	0.00270	10.0	16.0	19.0	0.8	15.0	15.0	54000	2.4	29 272 +3D*^	1000	500
	0.00270	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.2	29 272 +3D*^	-	400
	0.00330	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.3	29 332 +3D*^	-	400
	0.00390	6.0	15.0	26.5	0.8	22.5	22.5	11000	2.4	29 392 +3D*^	-	400
	0.00470	7.0	16.0	26.5	0.8	22.5	22.5	11000	2.7	29 472 +3D*^	-	400
	0.00560	7.0	16.0	26.5	0.8	22.5	22.5	11000	2.9	29 562 +3D*^	-	400
	0.00680	8.5	17.0	26.5	0.8	22.5	22.5	11000	3.1	29 682 +3D*^	-	400
	0.00820	8.5	17.0	26.5	0.8	22.5	22.5	11000	3.3	29 822 +3D*^	-	400
	0.01000	10.0	18.5	26.5	0.8	22.5	22.5	11000	3.7	29 103 +3D*^	-	400

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (PP/MPP Reduced Pitch)

MAIN APPLICATION: SMPS, electronic ballast, resonant capacitor, snubber application with high voltage and high current

CONSTRUCTION (DIP/BOX TYPE): Series constructed, impregnated polypropylene Film, aluminum foil and metallized polypropylene film as internal electrodes coated by hard, water repellant, solvent resistant epoxy resin or enclosed in a flame retardant box

CLIMATIC CATEGORY: 40/100/56

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: Between terminals: 1.6 times of rated voltage for 2 seconds

INSULATION RESISTANCE
Between leads > 100000 MΩ
Between interconnected leads and case >100000 MΩ

TAN δ AT 20°C (Dip type)

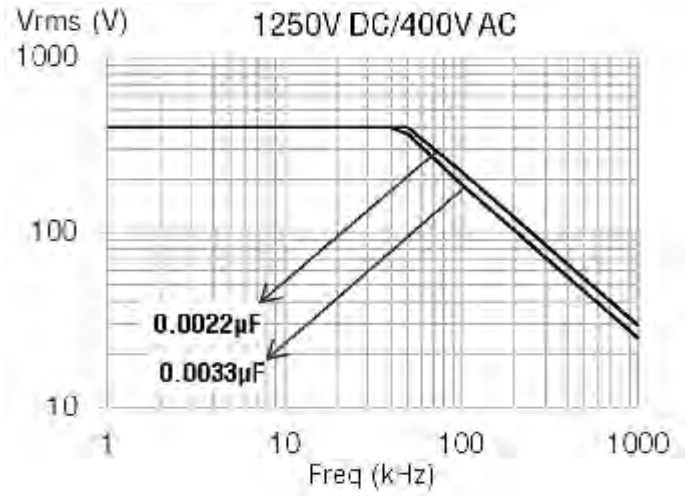
Frequency (kHz)	C_R < 0.1 µf	0.1 µf < C_R ≤ 1 µf
At 1	0.05%	0.08%
At 10	0.1%	0.1%
At 100	0.3%	0.5%

LIFE TEST CONDITIONS - DC (Loading at elevated temp.):
Loaded at 1.25 times of rated DC voltage at 85° C for 1000 hours

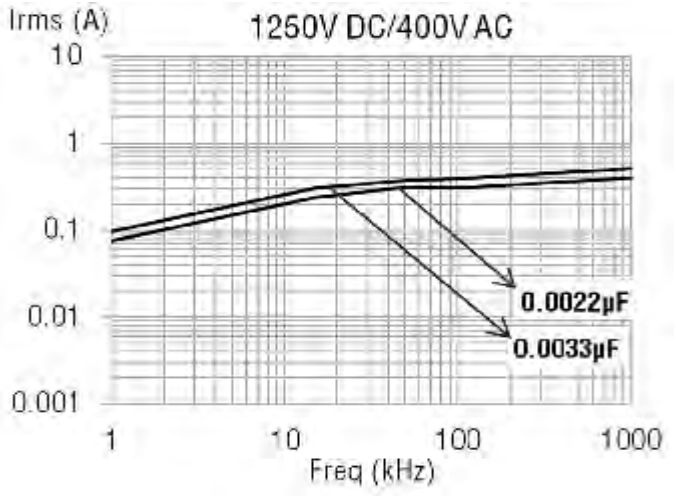
AFTER THE TEST
Δc/c: ≤ 5% of initial value
Change in Tan δ: 0.003
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Tested as per IEC 384-16

Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 85° C)

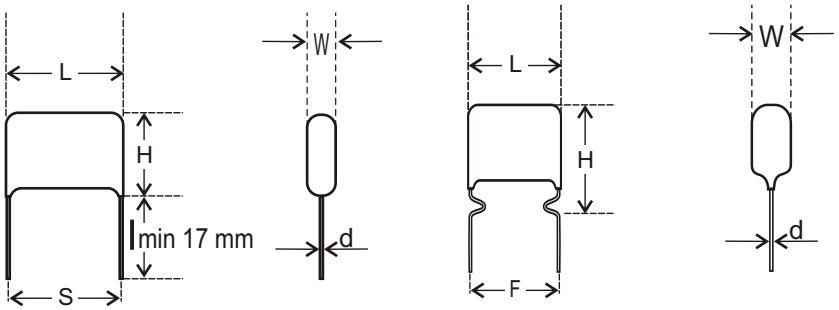


Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 85° C)



Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F 0.8/-0.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1250V DC	0.0022	6	12.0	13	0.6	12.5	10	30000	-	63 222 +3B*^	-	1000
400V AC	0.0027	6	12.0	13	0.6	12.5	10	30000	-	63 272 +3B*^	-	1000
	0.0033	6	12.0	13	0.6	12.5	10	30000	-	63 332 +3B*^	-	1000
	0.0039	6	12.0	13	0.6	12.5	10	30000	-	63 392 +3B*^	-	1000
	0.0047	6	12.0	13	0.6	12.5	10	30000	-	63 472 +3B*^	-	1000
	0.0056	6	12.5	13	0.6	12.5	10	30000	-	63 562 +3B*^	-	1000
	0.0068	6	13.0	13	0.6	12.5	10	30000	-	63 682 +3B*^	-	1000



AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series)

MAIN APPLICATION: Where steep pulses occur, e.g., SMPS, motor control circuits, S-correction, etc

CONSTRUCTION: Low inductive wound cell of metallised polypropylene film coated with flame epoxy resin or enclosed in a flame retardant box

CLIMATIC CATEGORY: 40/100/56

MAX OPERATING TEMPERATURE: 100° C

RATED TEMPERATURE: 85° C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%

VOLTAGE PROOF: Between terminals: 1.6 times the rated voltage for 2 seconds

LIFE TEST CONDITIONS:
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of the rated voltage at 100° C

Criteria after the test:
Δc/c: ≤ 5% of initial value
Increase of Tan δ: ≤ 0.002, C_R > 1 µF
Insulation resistance: ≥ 50% of the initial value mentioned in IR chart

APPROVALS: Capacitors tested as per IEC 384-16

TAN δ (DISSIPATION FACTOR) AT 20° C

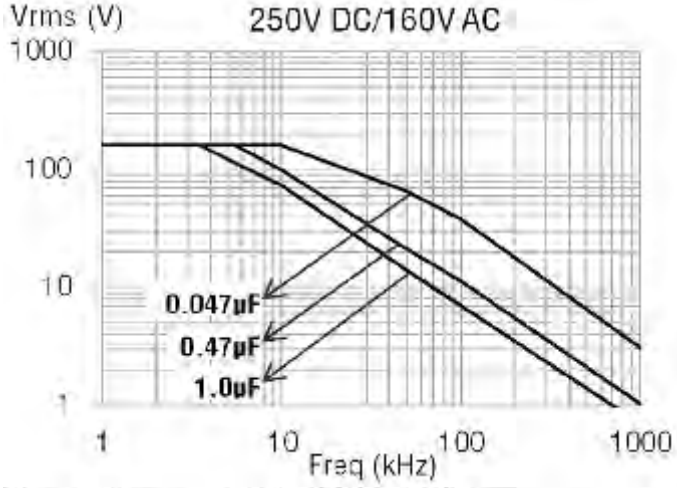
Frequency (kHz)	C_R<0.027µF	0.027>C_R≤0.1	0.1uF>C_R≤1µF	C_R>1µF
At 1	≤0.08%	≤0.08%	≤0.08%	≤0.1%
At 10	≤0.1%	≤0.1%	≤0.1%	-
At 100	≤0.15%	≤0.25%	≤0.5%	-

INSULATION RESISTANCE

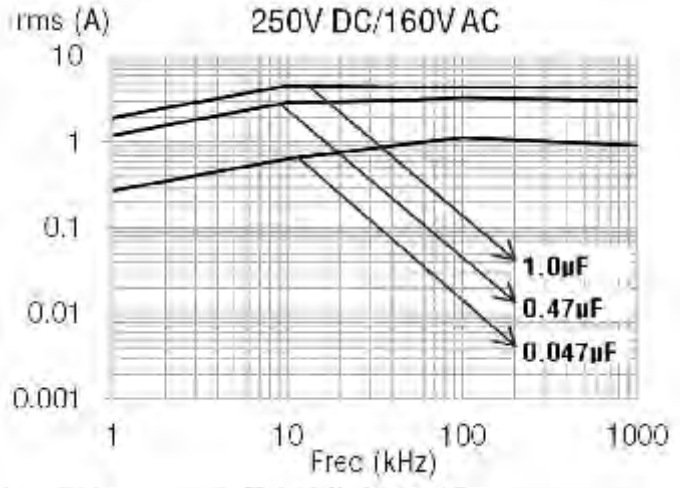
Minimum Insulation Resistance R_{IS}	C_R ≤ 0.33 µF	C_R > 0.33 µF
(or) time constant $T = C_R \times R_{IS}$	> 100000 MΩ	> 30000 s

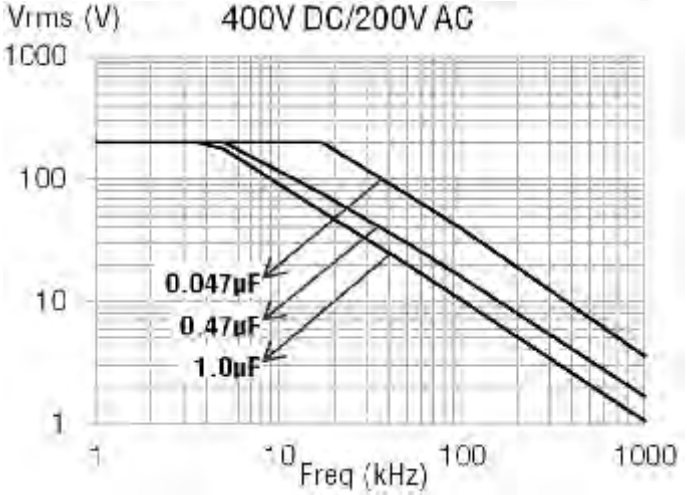
at 25° C, relative humidity ≤ 70%

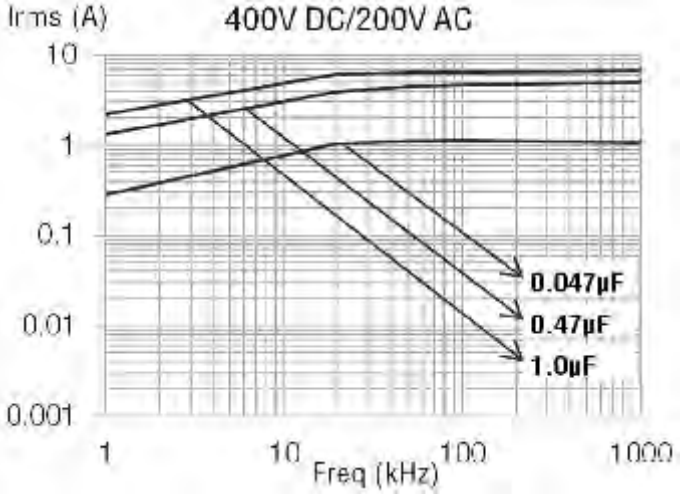
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



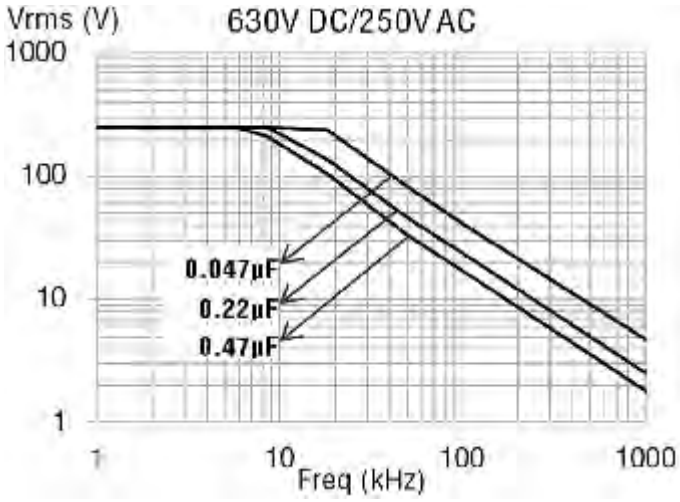
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

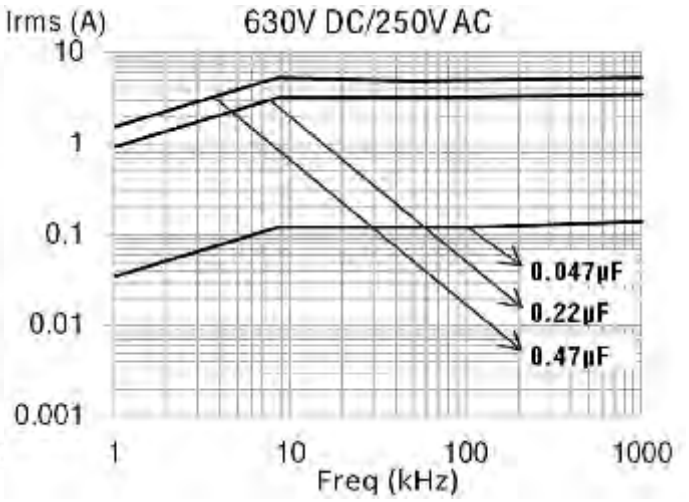






NOTE: The derating curves are based on the actual observed values.



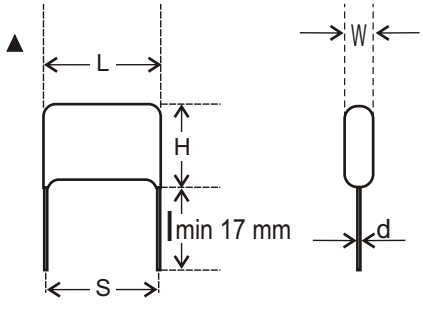


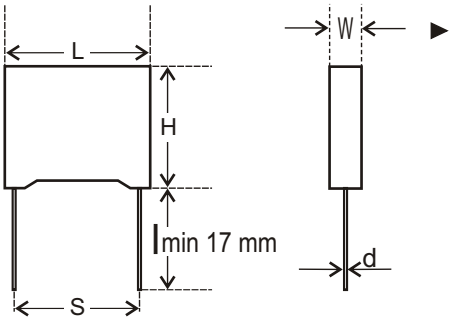
Note: The derating curves are based on the approximate actual values of tanδ rather than the theoretical values.

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series)

Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
250V DC	0.047	6.0	15.0	13	0.6	10.0	10.0	70	0.9	04 473 +2E*^	1000
	0.068	7.0	12.0	13	0.6	10.0	10.0	70	0.9	04 683 +2E*^	1000
	0.082	6.0	12.0	13	0.6	10.0	10.0	70	0.9	04 823 +2E*^	1000
	0.100	6.0	12.0	13	0.6	10.0	10.0	70	1.0	04 104 +2E*^	1000
	0.150	7.0	12.0	19	0.8	15.0	15.0	60	1.3	04 154 +2E*^	1000
	0.220	8.0	12.0	19	0.8	15.0	15.0	60	1.3	04 224 +2E*^	1000
	0.330	8.0	15.0	27	0.8	22.5	22.5	60	1.6	04 334 +2E*^	1250
	0.470	10.0	17.0	27	0.8	22.5	22.5	60	2.5	04 474 +2E*^	900
	0.560	9.0	17.0	27	0.8	22.5	22.5	30	1.8	04 564+2E*^	650
	0.680	9.5	17.0	27	0.8	22.5	22.5	30	1.9	04 684 +2E*^	600
	0.820	10.0	18.5	27	0.8	22.5	22.5	30	2.1	04 824 +2E*^	500
	1.000	11.0	19.5	27	0.8	22.5	22.5	30	2.5	04 105 +2E*^	450
	1.500	10.5	20.5	32	0.8	27.5	-	20	5.0	04 155 +2E*^	450
	2.200	12.0	21.0	31	0.8	27.5	-	20	6.5	04 225 +2E*^	300
400V DC	0.022	5.0	16.0	13	0.6	10.0	10.0	80	0.9	04 223 +2G*^	1000
	0.033	6.0	12.0	13	0.6	10.0	10.0	80	0.9	04 333 +2G*^	1000
	0.047	5.0	11.0	13	0.6	10.0	10.0	80	0.9	04 473 +2G*^	1000
	0.068	6.0	12.5	19	0.8	15.0	15.0	70	1.3	04 683 +2G*^	1500
	0.082	7.0	12.5	19	0.8	15.0	15.0	70	1.3	04 823 +2G*^	1500
	0.100	7.0	14.0	19	0.8	15.0	15.0	70	1.4	04 104 +2G*^	1250
	0.150	8.0	13.0	19	0.8	15.0	15.0	70	1.5	04 154 +2G*^	1250
	0.220	8.0	16.0	19	0.8	15.0	15.0	70	1.8	04 224 +2G*^	1000
	0.270	7.0	20.0	27	0.8	22.5	22.5	35	1.8	04 274 +2G*^	750
	0.330	8.0	15.0	27	0.8	22.5	22.5	35	1.9	04 334 +2G*^	600
	0.470	9.0	21.5	27	0.8	22.5	22.5	35	2.4	04 474 +2G*^	450
	0.560	10.0	19.0	27	0.8	22.5	22.5	35	2.6	04 564 +2G*^	450
	0.680	9.0	18.0	31	0.8	27.5	-	29	5.0	04 684 +2G*^	450
	0.820	11.0	21.0	31	0.8	27.5	-	29	5.5	04 824 +2G*^	400
	1.000	12.0	22.0	31	0.8	27.5	-	29	6.0	04 105 +2G*^	350
630V DC	0.010	5.0	10.0	13	0.6	10.0	10.0	100	0.9	04 103 +2J*^	1000
	0.015	6.0	11.0	13	0.6	10.0	10.0	100	0.9	04 153 +2J*^	1000
	0.022	7.0	12.0	13	0.6	10.0	10.0	100	0.9	04 223 +2J*^	1000
	0.033	6.0	11.0	19	0.8	15.0	15.0	90	1.3	04 333 +2J*^	1500
	0.047	7.0	13.0	19	0.8	15.0	15.0	90	1.3	04 473 +2J*^	1500
	0.068	8.0	14.0	19	0.8	15.0	15.0	90	1.5	04 683 +2J*^	1250
	0.082	8.0	14.0	19	0.8	15.0	15.0	90	1.6	04 823 +2J*^	1250
	0.100	9.0	15.0	19	0.8	15.0	15.0	90	1.8	04 104 +2J*^	1000
	0.120	7.0	15.0	27	0.8	22.5	22.5	45	1.7	04 124 +2J*^	750
	0.150	8.0	16.5	27	0.8	22.5	22.5	45	1.9	04 154 +2J*^	600
	0.220	10.0	17.0	27	0.8	22.5	22.5	45	2.4	04 224 +2J*^	450
	0.330	10.0	19.0	31	0.8	27.5	-	30	5.0	04 334 +2J*^	550
	0.470	12.0	20.0	32	0.8	27.5	-	30	5.5	04 474 +2J*^	450





AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series)

Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
250V DC	0.0330	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 333 +2E*^	2000	1100
	0.0470	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 473 +2E*^	2000	1100
	0.0680	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 683 +2E*^	2000	1100
	0.0820	5.0	11.0	13.0	0.6	10.0	10.0	280	0.8	27 823 +2E*^	2000	1100
	0.1000	5.5	11.5	13.5	0.6	10.0	10.0	280	0.8	27 104 +2E*^	2000	1100
	0.1500	6.0	12.0	13.0	0.6	10.0	10.0	280	0.9	27 154 +2E*^	2000	1100
	0.1500	5.0	10.8	18.0	0.8	15.0	15.0	200	1.1	27 154 +2E*^	1100	1000
	0.1800	5.0	10.8	18.0	0.8	15.0	15.0	200	1.1	27 184 +2E*^	1100	1000
	0.2200	5.0	10.8	18.0	0.8	15.0	15.0	200	1.1	27 224 +2E*^	1100	1000
	0.3300	6.0	11.9	18.0	0.8	15.0	15.0	200	1.5	27 334 +2E*^	1100	1000
	0.4700	7.5	13.5	18.0	0.8	15.0	15.0	200	2.0	27 474 +2E*^	900	1000
	0.5600	7.5	13.5	18.0	0.8	15.0	15.0	200	2.0	27 564 +2E*^	900	1000
	0.6800	8.5	14.5	18.0	0.8	15.0	15.0	200	2.6	27 684 +2E*^	700	1000
	0.8200	10.0	16.0	18.0	0.8	15.0	15.0	200	2.8	27 824 +2E*^	700	1000
	1.0000	10.0	16.0	18.0	0.8	15.0	15.0	200	2.8	27 105 +2E*^	700	1000
	0.3900	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 394 +2E*^	650	400
	0.4700	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 474 +2E*^	650	400
	0.6800	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 684 +2E*^	650	400
	0.8200	7.0	16.0	26.5	0.8	22.5	22.5	125	3.5	27 824 +2E*^	650	400
	1.0000	7.0	16.0	26.5	0.8	22.5	22.5	125	3.5	27 105 +2E*^	650	400
	1.2000	8.5	17.0	26.5	0.8	22.5	22.5	125	4.5	27 125 +2E*^	500	400
	1.5000	10.0	18.5	26.5	0.8	22.5	22.5	125	5.4	27 155 +2E*^	-	200
	1.8000	10.0	18.5	26.5	0.8	22.5	22.5	125	5.4	27 185 +2E*^	-	200
400V DC	0.0150	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 153 +2G*^	2000	1100
	0.0220	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 223 +2G*^	2000	1100
	0.0270	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 273 +2G*^	2000	1100
	0.0330	5.0	11.0	13.0	0.6	10.0	10.0	420	0.8	27 333 +2G*^	2000	1100
	0.0470	5.0	11.0	13.0	0.6	10.0	10.0	420	0.8	27 473 +2G*^	2000	1100
	0.0560	6.0	12.0	13.0	0.6	10.0	10.0	420	0.9	27 563 +2G*^	2000	1100
	0.0680	6.0	12.0	13.0	0.6	10.0	10.0	420	0.9	27 683 +2G*^	2000	1100
	0.0680	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 683 +2G*^	1100	1000
	0.0820	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 823 +2G*^	1100	1000
	0.1000	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 104 +2G*^	1100	1000
	0.1500	6.0	11.9	18.0	0.8	15.0	15.0	300	1.5	27 154 +2G*^	1100	1000
	0.1800	7.5	13.5	18.0	0.8	15.0	15.0	300	2.0	27 184 +2G*^	900	1000
	0.2200	7.5	13.5	18.0	0.8	15.0	15.0	300	2.0	27 224 +2G*^	900	1000
	0.3300	10.0	16.0	18.0	0.8	15.0	15.0	300	2.8	27 334 +2G*^	700	1000
	0.1800	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 184 +2G*^	650	400
	0.2700	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 274 +2G*^	650	400
	0.3300	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 334 +2G*^	650	400
	0.4700	7.0	16.0	26.5	0.8	22.5	22.5	180	3.5	27 474 +2G*^	650	400
	0.5600	7.0	16.0	26.5	0.8	22.5	22.5	180	3.5	27 564 +2G*^	650	400
	0.6800	10.0	18.5	26.5	0.8	22.5	22.5	180	5.4	27 684 +2G*^	-	200
630V DC	0.0010	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 102 +2J*^	2000	1100
	0.0015	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 152 +2J*^	2000	1100
	0.0018	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 182 +2J*^	2000	1100
	0.0022	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 222 +2J*^	2000	1100
	0.0033	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 332 +2J*^	2000	1100
	0.0039	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 392 +2J*^	2000	1100
	0.0047	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 472 +2J*^	2000	1100
	0.0056	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 562 +2J*^	2000	1100
	0.0082	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 822 +2J*^	2000	1100
	0.0100	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 102 +2J*^	2000	1100
	0.0120	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 123 +2J*^	2000	1100
	0.1500	5.0	11.0	13.0	0.6	10.0	10.0	550	0.8	27 153 +2J*^	2000	1100
	0.1800	5.0	11.0	13.0	0.6	10.0	10.0	550	0.8	27 183 +2J*^	2000	1100
	0.0220	6.0	12.0	13.0	0.6	10.0	10.0	550	0.9	27 223 +2J*^	2000	1100
	0.0270	6.0	12.0	13.0	0.6	10.0	10.0	550	0.9	27 273 +2J*^	2000	1100
	0.0270	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 273 +2J*^	1100	1000
	0.0330	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 333 +2J*^	1100	1000
	0.0470	6.0	12.0	18.0	0.8	15.0	15.0	400	1.1	27 473 +2J*^	1100	1000
	0.0680	6.0	11.9	18.0	0.8	15.0	15.0	400	1.5	27 683 +2J*^	1100	1000
	0.0820	6.0	11.9	18.0	0.8	15.0	15.0	400	1.5	27 823 +2J*^	1100	1000
	0.1000	7.5	13.5	18.0	0.8	15.0	15.0	400	2.0	27 104 +2J*^	900	1000
	0.1500	8.5	14.5	18.0	0.8	15.0	15.0	400	2.6	27 154 +2J*^	700	1000
	0.1800	10.0	16.0	18.0	0.8	15.0	15.0	400	2.8	27 184 +2J*^	700	1000
	0.2200	10.0	16.0	18.0	0.8	15.0	15.0	400	2.8	27 224 +2J*^	700	1000
	0.0820	6.0	15.0	26.5	0.8	22.5	22.5	250	2.8	27 823 +2J*^	650	400
	0.1000	6.0	15.0	26.5	0.8	22.5	22.5	250	2.8	27 104 +2J*^	650	400
	0.1500	6.0	15.0	26.5	0.8	22.5	22.5	250	2.8	27 154 +2J*^	650	400
	0.1800	7.0	16.0	26.5	0.8	22.5	22.5	250	3.5	27 184 +2J*^	650	400
	0.2200	7.0	16.0	26.5	0.8	22.5	22.5	250	3.5	27 224 +2J*^	650	400
	0.2700	8.5	17.0	26.5	0.8	22.5	22.5	250	4.5	27 274 +2J*^	500	400
	0.3300	10.0	18.5	26.5	0.8	22.5	22.5	250	5.4	27 334 +2J*^	-	200
	0.3900	10.0	18.5	26.5	0.8	22.5	22.5	250	5.4	27 394 +2J*^	-	200

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP/MPP) – DC Applications

MAIN APPLICATION: SMPS, Motor control circuits, deflection circuit in TV sets (fly back) and monitors, electronic ballast, snubber and SCR commutating circuits and applications with high voltage and high current

CONSTRUCTION: Series constructed, low inductive wound cell of metallised polypropylene film as electrodes coated with flame retardant epoxy resin or enclosed in a flame retardant box

CLIMATIC CATEGORY: 40/100/56

MAX OPERATING TEMPERATURE: 100° C

RATED TEMPERATURE: 85° C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ± 5%, ± 10%, ± 20%

VOLTAGE PROOF: Between terminals: 1.6 times the rated voltage for 2 seconds

INSULATION RESISTANCE

Between leads for $C_R \leq 1\mu F \geq 100{,}000\ M\Omega$

Between connected terminals and case >100,000 MΩ

TAN δ (DISSIPATION FACTOR) AT 20° C

Frequency (kHz)	$C_R \leq 0.1\ \mu F$	$0.1\ \mu F \leq C_R \leq 1\ \mu F$
At 1	0.05%	0.05%
At 10	0.08%	0.08%
At 100	0.23%	

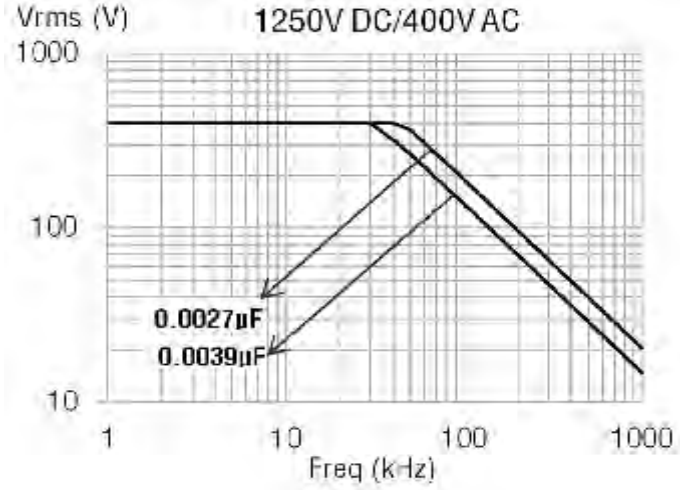
LIFE TEST CONDITIONS:
(Loading at elevated temperature)

Loaded at 1.25 times of rated DC voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of the rated voltage at 100 °C

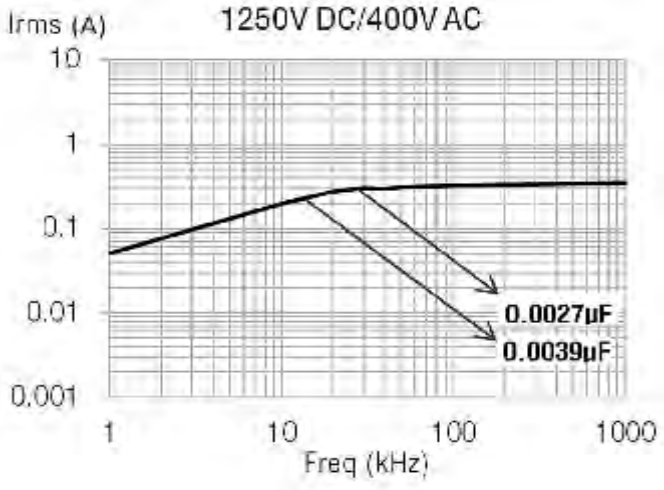
Criteria after the test:

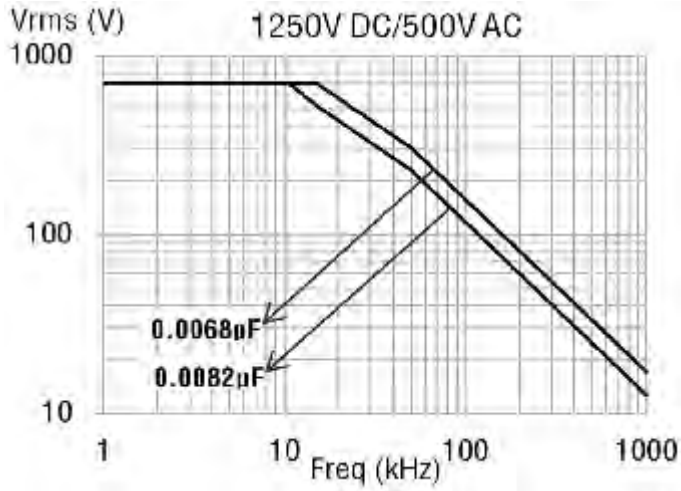
Δc/c: ≤ 5% of initial value
Increase of Tan δ: ≤ 0.002
Insulation resistance: ≥ 50% of the initial value mentioned in IR chart

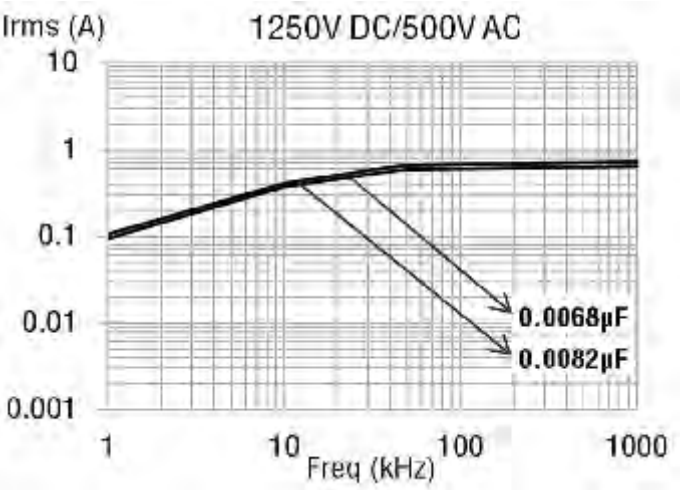
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)



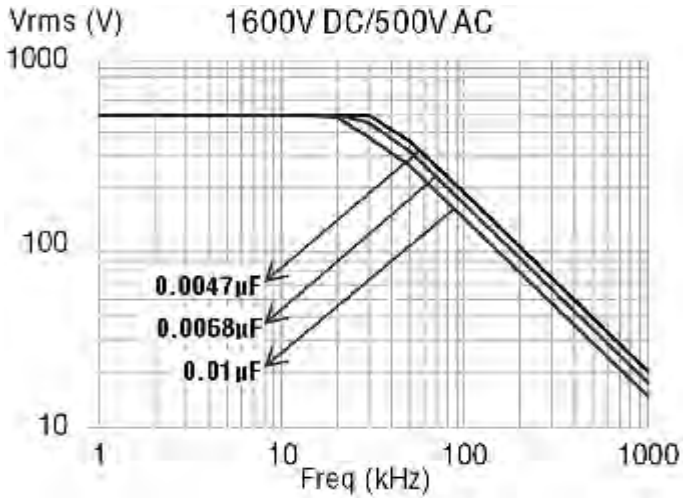
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

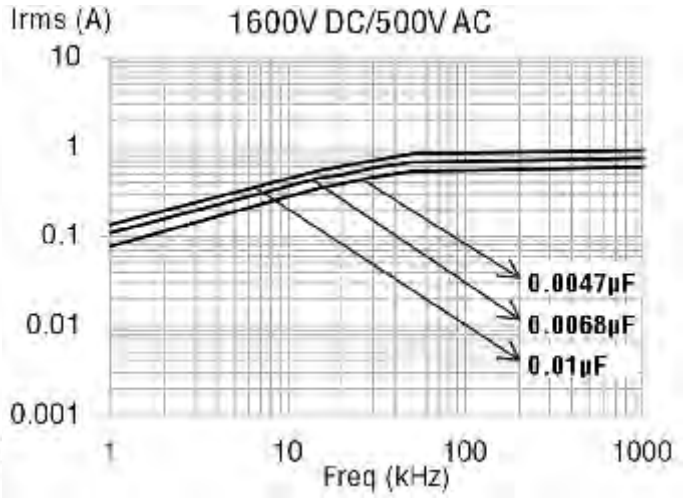


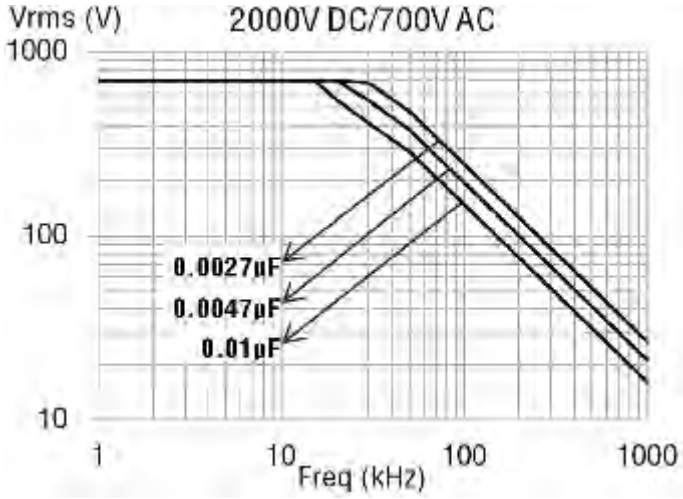


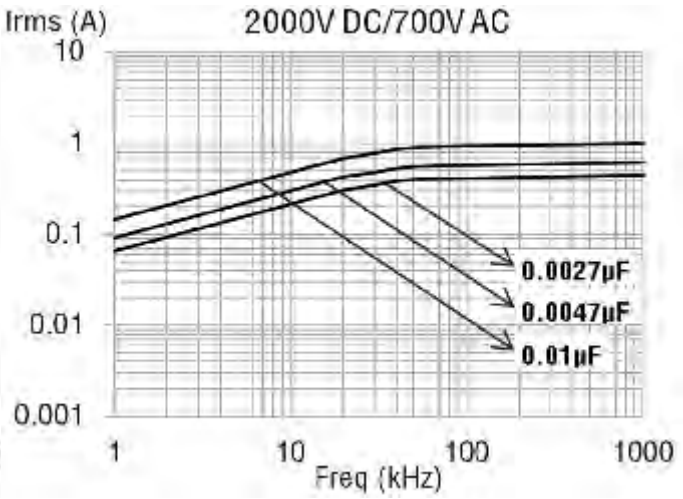


NOTE: The derating curves are based on the actual observed values.

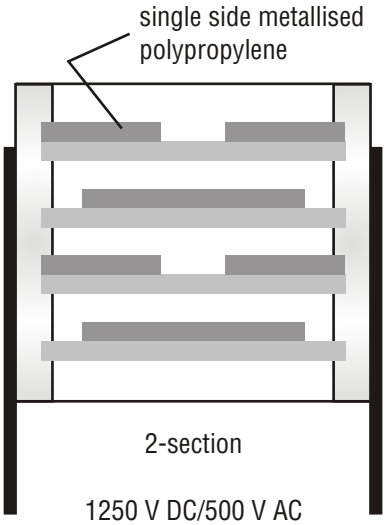




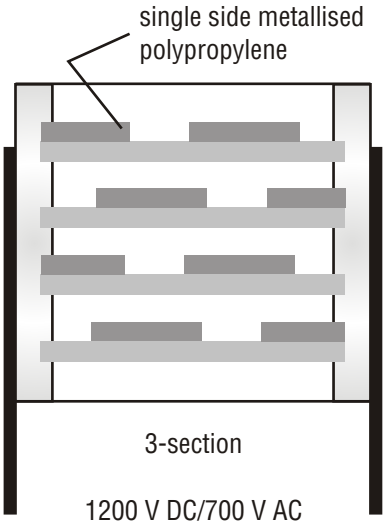




Note: The derating curves are based on the approximate actual values of tanδ rather than the theoretical values.



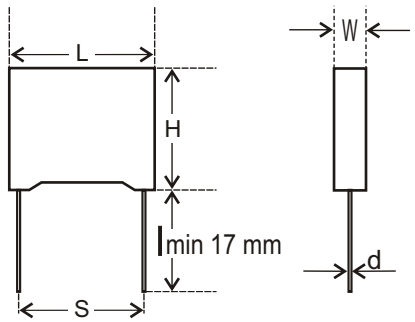
1250 V DC/500 V AC
1600 V DC/500 V AC

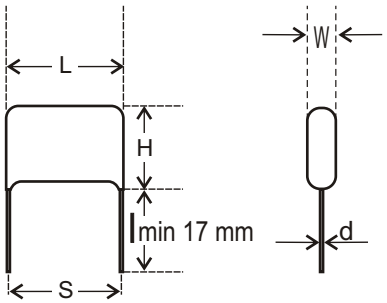


1200 V DC/700 V AC
2000 V DC/700 V AC

For Ordering Codes and Packing Units overleaf

Box Type





Dip Type

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP/MPP) –

DC Applications - Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1250V DC	0.0082	5.0	10.8	18.0	0.8	15.0	15.0	3300	1.1	30 822 +3B*^	1100	1000
500V AC	0.0100	5.0	10.8	18.0	0.8	15.0	15.0	3300	1.1	30 103 +3B*^	1100	1000
	0.0120	6.0	11.9	18.0	0.8	15.0	15.0	3300	1.5	30 123 +3B*^	1100	1000
	0.0150	6.0	11.9	18.0	0.8	15.0	15.0	3300	1.5	30 153 +3B*^	1100	1000
	0.0180	7.5	13.5	18.0	0.8	15.0	15.0	3300	2.0	30 183 +3B*^	900	1000
	0.0220	7.5	13.5	18.0	0.8	15.0	15.0	3300	2.0	30 223 +3B*^	900	1000
	0.0270	8.5	14.5	18.0	0.8	15.0	15.0	3300	2.6	30 273 +3B*^	700	1000
	0.0330	10.0	16.0	18.0	0.8	15.0	15.0	3300	2.8	30 333 +3B*^	700	1000
	0.0390	10.0	16.0	18.0	0.8	15.0	15.0	3300	2.8	30 393 +3B*^	700	1000
	0.0330	6.0	15.0	26.5	0.8	22.5	22.5	2100	2.8	30 333 +3B*^	650	400
	0.0390	6.0	15.0	26.5	0.8	22.5	22.5	2100	2.8	30 393 +3B*^	650	400
	0.0470	7.0	16.0	26.5	0.8	22.5	22.5	2100	3.5	30 473 +3B*^	650	400
	0.0560	7.0	16.0	26.5	0.8	22.5	22.5	2100	3.5	30 563 +3B*^	650	400
	0.0680	8.5	17.0	26.5	0.8	22.5	22.5	2100	4.5	30 683 +3B*^	500	400
	0.0820	10.0	18.5	26.5	0.8	22.5	22.5	2100	5.4	30 823 +3B*^	-	200
	0.1000	10.0	18.5	26.5	0.8	22.5	22.5	2100	5.4	30 104 +3B*^	-	200
1600V DC	0.0022	5.0	10.8	18.0	0.8	15.0	15.0	4500	1.1	30 222 +3C*^	1100	1000
500V AC	0.0033	5.0	10.8	18.0	0.8	15.0	15.0	4500	1.1	30 332 +3C*^	1100	1000
	0.0039	6.0	11.9	18.0	0.8	15.0	15.0	4500	1.5	30 392 +3C*^	1100	1000
	0.0047	6.0	11.9	18.0	0.8	15.0	15.0	4500	1.5	30 473 +3C*^	1100	1000
	0.0056	6.0	11.9	18.0	0.8	15.0	15.0	4500	1.5	30 563 +3C*^	1100	1000
	0.0068	6.0	11.9	18.0	0.8	15.0	15.0	4500	1.5	30 683 +3C*^	1100	1000
	0.0082	7.5	13.5	18.0	0.8	15.0	15.0	4500	2.0	30 823 +3C*^	900	1000
	0.0100	8.5	14.5	18.0	0.8	15.0	15.0	4500	2.0	30 103 +3C*^	900	1000
	0.0150	8.5	14.5	18.0	0.8	15.0	15.0	4500	2.6	30 153 +3C*^	700	1000
	0.0220	10.0	16.0	18.0	0.8	15.0	15.0	4500	2.8	30 223 +3C*^	700	1000
1600V DC	0.0056	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	30 562 +3C*^	1100	1000
700V AC	0.0068	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	30 682 +3C*^	1100	1000
	0.0082	6.0	11.9	18.0	0.8	15.0	15.0	6000	1.5	30 822 +3C*^	1100	1000
	0.0100	6.0	11.9	18.0	0.8	15.0	15.0	6000	1.5	30 103 +3C*^	1100	1000
	0.0120	7.5	13.5	18.0	0.8	15.0	15.0	6000	2.0	30 123 +3C*^	900	1000
	0.0150	7.5	13.5	18.0	0.8	15.0	15.0	6000	2.0	30 153 +3C*^	900	1000
	0.0180	8.5	14.5	18.0	0.8	15.0	15.0	6000	2.6	30 183 +3C*^	700	1000
	0.0220	10.0	16.0	18.0	0.8	15.0	15.0	6000	2.8	30 223 +3C*^	700	1000
	0.0270	10.0	16.0	18.0	0.8	15.0	15.0	6000	2.8	30 273 +3C*^	700	1000
	0.0270	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	30 273 +3C*^	650	400
	0.0330	7.0	16.0	26.5	0.8	22.5	22.5	3000	3.5	30 333 +3C*^	650	400
	0.0390	7.0	16.0	26.5	0.8	22.5	22.5	3000	3.5	30 393 +3C*^	650	400
	0.0470	8.5	17.0	26.5	0.8	22.5	22.5	3000	4.5	30 473 +3C*^	500	400
	0.0560	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	30 563 +3C*^	-	200
	0.0680	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	30 683 +3C*^	-	200
2000V DC	0.0010	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 102 +3D*^	1100	1000
700V AC	0.0012	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 122 +3D*^	1100	1000
	0.0015	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 152 +3D*^	1100	1000
	0.0018	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 182 +3D*^	1100	1000
	0.0022	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 222 +3D*^	1100	1000
	0.0027	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 272 +3D*^	1100	1000
	0.0033	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 332 +3D*^	1100	1000
	0.0039	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 392 +3D*^	1100	1000
	0.0047	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	30 472 +3D*^	1100	1000
	0.0056	6.0	11.9	18.0	0.8	15.0	15.0	9500	1.5	30 562 +3D*^	1100	1000
	0.0068	6.0	11.9	18.0	0.8	15.0	15.0	9500	1.5	30 682 +3D*^	1100	1000
	0.0082	7.5	13.5	18.0	0.8	15.0	15.0	9500	2.0	30 822 +3D*^	1100	1000
	0.0100	7.5	13.5	18.0	0.8	15.0	15.0	9500	2.0	30 103 +3D*^	900	1000
	0.0120	8.5	14.5	18.0	0.8	15.0	15.0	9500	2.6	30 123 +3D*^	700	1000
	0.0150	8.5	14.5	18.0	0.8	15.0	15.0	9500	2.6	30 153 +3D*^	700	1000
	0.0180	10.0	16.0	18.0	0.8	15.0	15.0	9500	2.8	30 183 +3D*^	700	1000
	0.0047	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 472 +3D*^	650	400
	0.0056	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 562 +3D*^	650	400
	0.0068	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 682 +3D*^	650	400
	0.0082	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 822 +3D*^	650	400
	0.0100	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 103 +3D*^	650	400
	0.0120	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 123 +3D*^	650	400
	0.0150	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 153 +3D*^	650	400
	0.0180	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 183 +3D*^	650	400
	0.0220	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	30 223 +3D*^	650	400
	0.0270	7.0	16.0	26.5	0.8	22.5	22.5	3500	3.5	30 273 +3D*^	650	400
	0.0330	8.5	17.0	26.5	0.8	22.5	22.5	3500	4.5	30 333 +3D*^	500	400
	0.0390	10.0	18.5	26.5	0.8	22.5	22.5	3500	5.4	30 393 +3D*^	-	200
	0.0470	10.0	18.5	26.5	0.8	22.5	22.5	3500	5.4	30 473 +3D*^	-	200

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP/MPP) –

DC Applications - Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1250V DC	0.0022	5.5	10.0	10.5	0.6	7.5	7.5	2500	-	18 222 +3B*^	1100	1000
400V AC	0.0027	5.5	10.5	10.5	0.6	7.5	7.5	2500	-	18 272 +3B*^	1100	1000
	0.0030	6.0	10.5	10.5	0.6	7.5	7.5	2500	-	18 302 +3B*^	1100	1000
	0.0033	6.0	11.0	10.5	0.6	7.5	7.5	2500	-	18 332 +3B*^	1100	1000
	0.0039	6.5	11	10.5	0.6	7.5	7.5	2500	-	18 392 +3B*^	1100	1000
1250V DC	0.0082	5.5	11.5	19	0.8	15.0	15.0	3300	1.4	18 822 +3B*^	1100	1000
500V AC	0.0100	5.5	11.5	19	0.8	15.0	15.0	3300	1.4	18 103 +3B*^	1100	1000
	0.0120	6.5	12.5	19	0.8	15.0	15.0	3300	1.5	18 123 +3B*^	1100	1000
	0.0150	6.5	12.5	19	0.8	15.0	15.0	3300	1.6	18 153 +3B*^	1100	1000
	0.0180	8.0	14.0	19	0.8	15.0	15.0	3300	2.0	18 183 +3B*^	900	1000
	0.0220	8.0	14.0	19	0.8	15.0	15.0	3300	2.0	18 223 +3B*^	900	1000
	0.0270	9.0	15.0	19	0.8	15.0	15.0	3300	2.4	18 273 +3B*^	700	1000
	0.0330	10.5	16.5	19	0.8	15.0	15.0	3300	2.6	18 333 +3B*^	700	1000
	0.0390	10.5	16.5	19	0.8	15.0	15.0	3300	2.6	18 393 +3B*^	700	1000
	0.0470	10.5	17.0	19	0.8	15.0	15.0	3300	2.6	18 473 +3B*^	700	1000
	0.0330	6.5	15.5	27	0.8	22.5	22.5	2100	2.5	18 333 +3B*^	650	400
	0.0390	6.5	15.5	27	0.8	22.5	22.5	2100	2.5	18 393 +3B*^	650	400
	0.0470	7.5	16.5	27	0.8	22.5	22.5	2100	3.2	18 473 +3B*^	650	400
	0.0560	7.5	16.5	27	0.8	22.5	22.5	2100	3.2	18 563 +3B*^	650	400
	0.0680	8.5	17.5	27	0.8	22.5	22.5	2100	4.1	18 683 +3B*^	650	400
	0.0820	10.5	19.0	27	0.8	22.5	22.5	2100	5.0	18 823 +3B*^	650	400
	0.1000	10.5	19.0	27	0.8	22.5	22.5	2100	5.0	18 104 +3B*^	500	400
	0.1500	13.0	21.0	27	0.8	22.5	22.5	2100	5.2	18 154 +3B*^	-	200
1600V DC	0.0022	5.5	12.0	19	0.8	15.0	15.0	4500	1.1	18 222 +3C*^	1100	1000
500V AC	0.0033	5.5	12.0	19	0.8	15.0	15.0	4500	1.1	18 332 +3C*^	1100	1000
	0.0039	6.0	12.0	19	0.8	15.0	15.0	4500	1.5	18 392 +3C*^	1100	1000
	0.0047	7.0	12.0	19	0.8	15.0	15.0	4500	1.5	18 473 +3C*^	1100	1000
	0.0056	7.0	13.0	19	0.8	15.0	15.0	4500	1.5	18 563 +3C*^	1100	1000
	0.0068	6.5	14.0	19	0.8	15.0	15.0	4500	1.5	18 683 +3C*^	1100	1000
	0.0100	7.0	16.0	19	0.8	15.0	15.0	4500	2.0	18 103 +3C*^	900	1000
	0.0150	9.0	17.0	19	0.8	15.0	15.0	4500	2.6	18 153 +3C*^	700	1000
	0.0220	10.5	17.0	19	0.8	15.0	15.0	4500	2.8	18 223 +3C*^	700	1000
1600V DC	0.0056	7.0	13.0	19	0.8	15.0	15.0	6000	1.1	18 562 +3C*^	1100	1000
700V AC	0.0068	6.5	14.0	19	0.8	15.0	15.0	6000	1.1	18 682 +3C*^	1100	1000
	0.0082	8.0	14.0	19	0.8	15.0	15.0	6000	1.5	18 822 +3C*^	1100	1000
	0.0100	7.0	16.0	19	0.8	15.0	15.0	6000	1.5	18 103 +3C*^	1100	1000
	0.0120	9.0	16.0	19	0.8	15.0	15.0	6000	2.0	18 123 +3C*^	1100	1000
	0.0180	8.5	15.0	19	0.8	15.0	15.0	6000	2.4	18 183 +3C*^	1100	1000
	0.0220	10.5	16.5	19	0.8	15.0	15.0	6000	2.6	18 223 +3C*^	1100	1000
	0.0270	10.5	16.5	19	0.8	15.0	15.0	6000	2.6	18 273 +3C*^	900	1000
	0.0330	11.0	18.0	19	0.8	15.0	15.0	6000	2.6	18 333 +3C*^	900	1000
	0.0270	6.5	15.5	27	0.8	22.5	22.5	3000	2.6	18 273 +3C*^	650	400
	0.0330	7.5	16.5	27	0.8	22.5	22.5	3000	3.2	18 333 +3C*^	650	400
	0.0390	7.5	16.5	27	0.8	22.5	22.5	3000	3.2	18 393 +3C*^	650	400
	0.0470	9.0	17.5	27	0.8	22.5	22.5	3000	4.1	18 473 +3C*^	500	400
	0.0560	10.5	19.0	27	0.8	22.5	22.5	3000	5.0	18 563 +3C*^	500	400
	0.0680	10.5	19.0	27	0.8	22.5	22.5	3000	5.0	18 683 +3C*^	-	200
	0.1000	12.0	21.0	27	0.8	22.5	22.5	3000	5.2	18 104 +3C*^	-	200
2000V DC	0.0010	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	18 102 +3D*^	1100	1000
700V AC	0.0012	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	18 122 +3D*^	1100	1000
	0.0018	7.0	17.0	19	0.8	15.0	15.0	9500	1.1	18 182 +3D*^	1100	1000
	0.0022	6.0	11.0	19	0.8	15.0	15.0	9500	1.1	18 222 +3D*^	1100	1000
	0.0027	6.0	15.0	19	0.8	15.0	15.0	9500	1.1	18 272 +3D*^	1100	1000
	0.0033	7.0	13.0	19	0.8	15.0	15.0	9500	1.1	18 332 +3D*^	1100	1000
	0.0039	6.0	15.0	19	0.8	15.0	15.0	9500	1.1	18 392 +3D*^	1100	1000
	0.0047	7.0	15.0	19	0.8	15.0	15.0	9500	1.1	18 472 +3D*^	1100	1000
	0.0056	7.0	15.0	19	0.8	15.0	15.0	9500	1.5	18 562 +3D*^	900	1000
	0.0068	8.0	16.0	19	0.8	15.0	15.0	9500	1.5	18 682 +3D*^	900	1000
	0.0082	9.0	18.0	19	0.8	15.0	15.0	9500	2.0	18 822 +3D*^	900	1000
	0.0100	10.0	17.0	19	0.8	15.0	15.0	9500	2.0	18 103 +3D*^	900	1000
	0.0120	11.0	18.0	19	0.8	15.0	15.0	9500	2.4	18 123 +3D*^	700	1000
	0.0150	9.0	15.0	19	0.8	15.0	15.0	9500	2.4	18 153 +3D*^	700	1000
	0.0180	10.5	16.5	19	0.8	15.0	15.0	9500	2.4	18 183 +3D*^	700	1000
	0.0220	10.5	19.0	19	0.8	15.0	15.0	9500	2.6	18 223 +3D*^	-	1000
	0.0270	11.0	20.0	19	0.8	15.0	15.0	9500	2.6	18 273 +3D*^	-	1000
	0.0047	7.0	15.0	27	0.8	22.5	22.5	3500	2.6	18 472 +3D*^	650	400
	0.0056	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 562 +3D*^	650	400
	0.0068	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 682 +3D*^	650	400
	0.0100	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 103 +3D*^	650	400
	0.0120	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 123 +3D*^	650	400
	0.0150	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 153 +3D*^	650	400
	0.0180	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 183 +3D*^	650	400
	0.0220	6.5	15.5	27	0.8	22.5	22.5	3500	2.6	18 223 +3D*^	650	400
	0.0270	7.5	16.5	27	0.8	22.5	22.5	3500	3.2	18 273 +3D*^	500	400
	0.0330	9.0	17.5	27	0.8	22.5	22.5	3500	4.1	18 333 +3D*^	500	400
	0.0390	10.5	19.0	27	0.8	22.5	22.5	3500	5.0	18 393 +3D*^	-	200
	0.0470	10.5	19.0	27	0.8	22.5	22.5	3500	5.0	18 473 +3D*^	-	200

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS
MMPP (Double side metallised film capacitor) – DC Applications

MAIN APPLICATION: SMPS, Motor control circuits, deflection circuit in TV sets (fly back) and monitors, electronic ballast, snubber and SCR commutating circuits and applications with high voltage and high current

CONSTRUCTION: Series constructed, low inductive wound cell of metallised polypropylene film as electrodes coated with flame retardant epoxy resin or enclosed in a flame retardant box

CLIMATIC CATEGORY: 40/100/56

MAX OPERATING TEMPERATURE: 100° C

RATED TEMPERATURE: 85° C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ± 5%, ± 10%, ± 20%

VOLTAGE PROOF: Between terminals: 1.6 times the rated voltage for 2 seconds

LIFE TEST CONDITIONS:
(Loading at elevated temperature)
Loaded at 1.25 times of rated DC voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours
Category voltage is 80% of the rated voltage at 100° C

Criteria after the test:
Δc/c: ≤ 5% of initial value
Increase of Tan δ: ≤ 0.0015
Insulation resistance: ≥ 50% of the initial value mentioned in IR chart

TAN δ (DISSIPATION FACTOR) AT 20° C

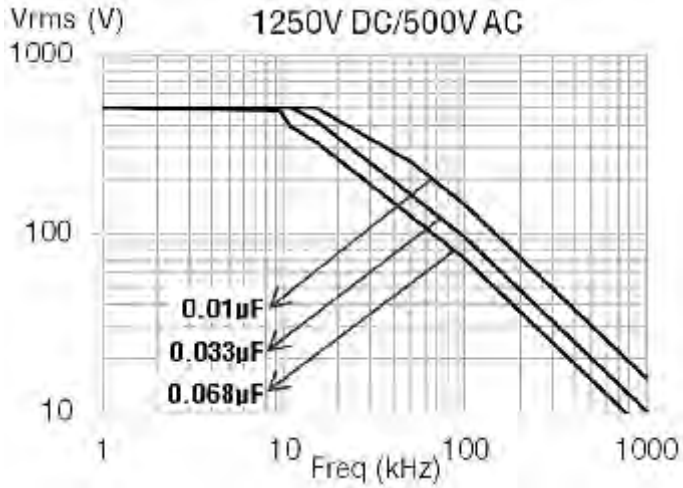
Frequency (kHz)	C_R < 0.1 µF	0.1 µF < C_R ≤ 1 µF	C_R > 1 µF
At 1	0. 03%	0.03%	0.03%
At 10	0. 04%	0.05%	
At 100	0.15%		

INSULATION RESISTANCE

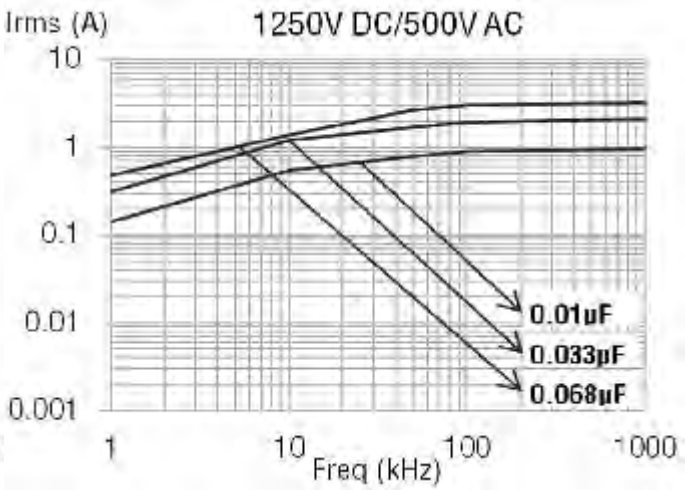
Minimum Insulation Resistance R_{IS}	C_R ≤ 0.33 µF	C_R > 0.33 µF
(or) time constant $T = C_R \times R_{IS}$ = 30000 s	> 100000 MΩ	> 30000 s

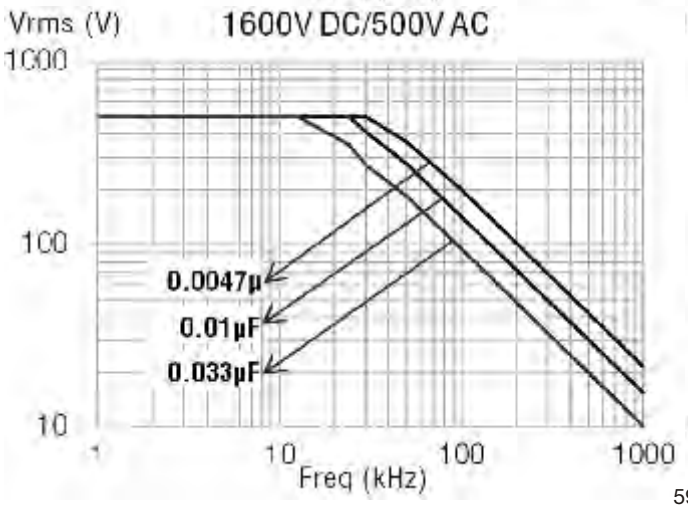
at 25° C, relative humidity ≤ 70%

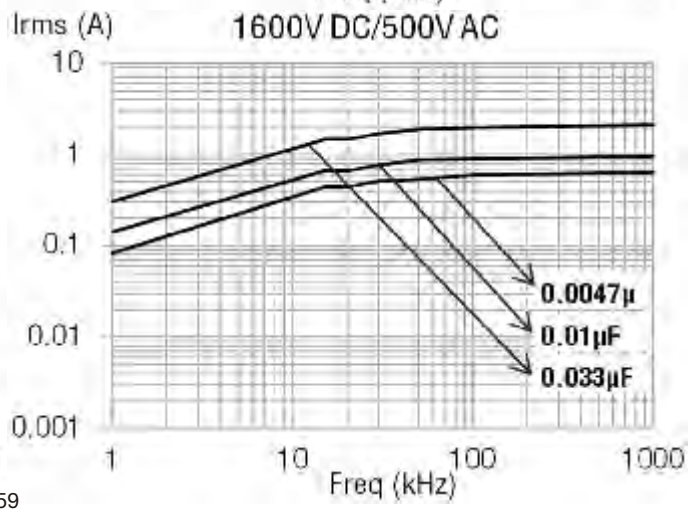
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

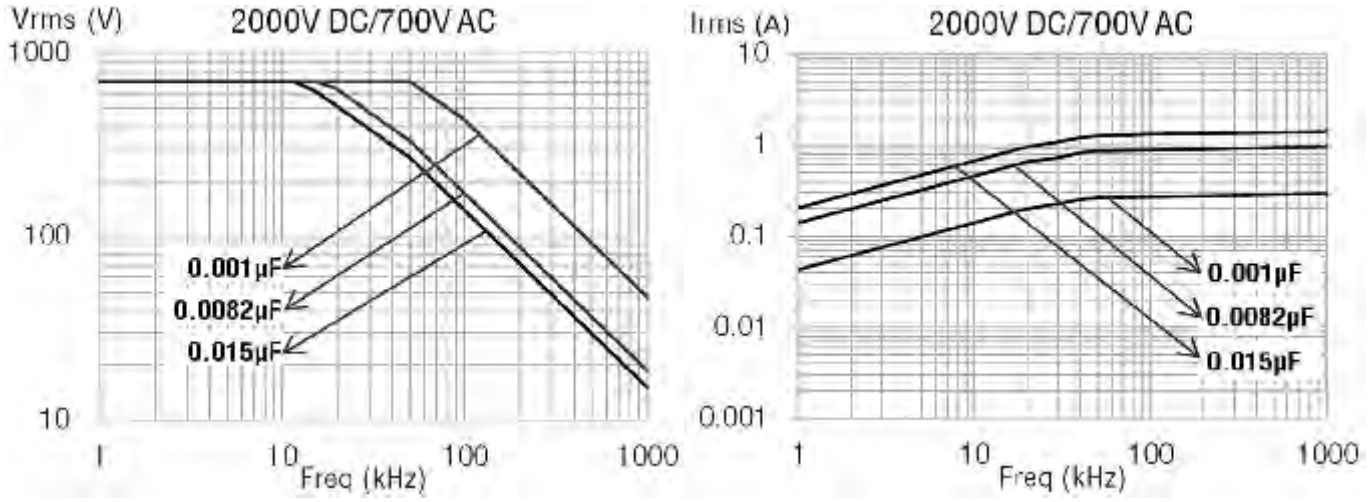


Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)





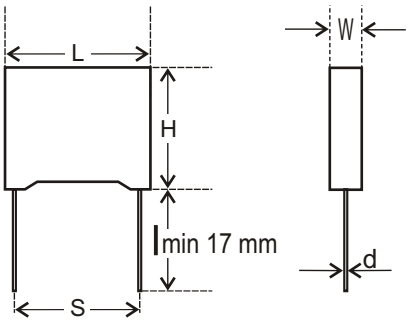




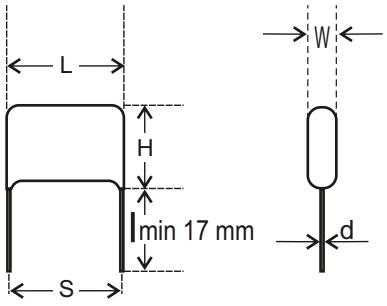
NOTE: The derating curves are based on the actual observed values.

For Ordering Codes and Packing Units overleaf

Box Type



Dip Type



DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS - MMPP (Double side metallised film capacitor) – DC Applications - Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1250V DC	0.0082	6.0	11.9	18.0	0.8	15.0	15.0	3300	1.5	66 822 +3B*^	1100	1000
500V AC	0.0100	6.0	11.9	18.0	0.8	15.0	15.0	3300	1.5	66 103 +3B*^	1100	1000
	0.0120	7.5	13.5	18.0	0.8	15.0	15.0	3300	2.0	66 123 +3B*^	900	1000
	0.0150	7.5	13.5	18.0	0.8	15.0	15.0	3300	2.0	66 153 +3B*^	900	1000
	0.0180	7.5	13.5	18.0	0.8	15.0	15.0	3300	2.0	66 183 +3B*^	900	1000
	0.0220	8.5	14.5	18.0	0.8	15.0	15.0	3300	2.6	66 223 +3B*^	700	1000
	0.0270	10.0	16.0	18.0	0.8	15.0	15.0	3300	2.8	66 273 +3B*^	700	1000
	0.0270	6.0	15.0	26.5	0.8	22.5	22.5	2100	2.8	66 273 +3B*^	650	400
	0.0330	7.0	16.0	26.5	0.8	22.5	22.5	2100	3.5	66 333 +3B*^	650	400
	0.0390	7.0	16.0	26.5	0.8	22.5	22.5	2100	3.5	66 393 +3B*^	650	400
	0.0470	8.5	17.0	26.5	0.8	22.5	22.5	2100	4.5	66 473 +3B*^	500	400
	0.0560	10.0	18.5	26.5	0.8	22.5	22.5	2100	5.4	66 563 +3B*^	-	200
	0.0680	10.0	18.5	26.5	0.8	22.5	22.5	2100	5.4	66 683 +3B*^	-	200
1600V DC	0.0033	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	66 332 +3C*^	1100	1000
500V AC	0.0039	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	66 392 +3C*^	1100	1000
	0.0047	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	66 472 +3C*^	1100	1000
	0.0056	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	66 562 +3C*^	1100	1000
	0.0068	5.0	10.8	18.0	0.8	15.0	15.0	6000	1.1	66 682 +3C*^	1100	1000
	0.0082	6.0	11.9	18.0	0.8	15.0	15.0	6000	1.5	66 822 +3C*^	1100	1000
	0.0100	6.0	11.9	18.0	0.8	15.0	15.0	6000	1.5	66 103 +3C*^	1100	1000
	0.0120	7.5	13.5	18.0	0.8	15.0	15.0	6000	2.0	66 123 +3C*^	900	1000
	0.0150	7.5	13.5	18.0	0.8	15.0	15.0	6000	2.0	66 153 +3C*^	900	1000
	0.0180	8.5	14.5	18.0	0.8	15.0	15.0	6000	2.6	66 183 +3C*^	700	1000
	0.0270	10.0	16.0	18.0	0.8	15.0	15.0	6000	2.8	66 273 +3C*^	700	1000
	0.0150	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	66 153 +3C*^	650	400
	0.0180	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	66 183 +3C*^	650	400
	0.0220	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	66 223 +3C*^	650	400
	0.0270	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	66 273 +3C*^	650	400
	0.0330	7.0	16.0	26.5	0.8	22.5	22.5	3000	3.5	66 333 +3C*^	650	400
	0.0390	8.5	17.0	26.5	0.8	22.5	22.5	3000	4.5	66 393 +3C*^	500	400
	0.0470	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	66 473 +3C*^	-	200
	0.0560	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	66 563 +3C*^	-	200
2000V DC	0.0002	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 221 +3D*^	1100	1000
700V AC	0.0003	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 271 +3D*^	1100	1000
	0.0003	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 331 +3D*^	1100	1000
	0.0004	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 391 +3D*^	1100	1000
	0.0005	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 471 +3D*^	1100	1000
	0.0006	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 561 +3D*^	1100	1000
	0.0007	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 681 +3D*^	1100	1000
	0.0008	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 821 +3D*^	1100	1000
	0.0010	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 102 +3D*^	1100	1000
	0.0012	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 122 +3D*^	1100	1000
	0.0015	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 152 +3D*^	1100	1000
	0.0018	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 182 +3D*^	1100	1000
	0.0022	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 222 +3D*^	1100	1000
	0.0027	5.0	10.8	18.0	0.8	15.0	15.0	9500	1.1	66 272 +3D*^	1100	1000
	0.0033	6.0	11.9	18.0	0.8	15.0	15.0	9500	1.5	66 332 +3D*^	1100	1000
	0.0039	6.0	11.9	18.0	0.8	15.0	15.0	9500	1.5	66 392 +3D*^	1100	1000
	0.0047	6.0	11.9	18.0	0.8	15.0	15.0	9500	1.5	66 472 +3D*^	1100	1000
	0.0056	7.5	13.5	18.0	0.8	15.0	15.0	9500	2.0	66 562 +3D*^	900	1000
	0.0068	7.5	13.5	18.0	0.8	15.0	15.0	9500	2.0	66 682 +3D*^	900	1000
	0.0082	8.5	14.5	18.0	0.8	15.0	15.0	9500	2.6	66 822 +3D*^	700	1000
	0.0100	10.0	16.0	18.0	0.8	15.0	15.0	9500	2.8	66 132 +3D*^	700	1000
	0.0010	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 102 +3D*^	650	400
	0.0012	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 122 +3D*^	650	400
	0.0015	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 152 +3D*^	650	400
	0.0018	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 182 +3D*^	650	400
	0.0022	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 222 +3D*^	650	400
	0.0027	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 272 +3D*^	650	400
	0.0033	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 332 +3D*^	650	400
	0.0039	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 392 +3D*^	650	400
	0.0047	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 472 +3D*^	650	400
	0.0056	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 562 +3D*^	650	400
	0.0068	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 682 +3D*^	650	400
	0.0082	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 822 +3D*^	650	400
	0.0100	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 103 +3D*^	650	400
	0.0120	6.0	15.0	26.5	0.8	22.5	22.5	3500	2.8	66 123 +3D*^	650	400
	0.0150	7.0	16.0	26.5	0.8	22.5	22.5	3500	3.5	66 153 +3D*^	650	400
	0.0220	8.5	17.0	26.5	0.8	22.5	22.5	3500	4.5	66 223 +3D*^	500	400
	0.0270	10.0	18.5	26.5	0.8	22.5	22.5	3500	5.4	66 273 +3D*^	-	200

The dv/dt test is carried out for 2 times above value

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS - MMPP (Double side metallised film capacitor) – DC Applications - Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
1250V DC	0.00820	6.5	12.5	19	0.8	15.0	15.0	3300	1.5	61 822 +3B*^	1100	1000
500V AC	0.01000	7.0	12.5	19	0.8	15.0	15.0	3300	1.6	61 103 +3B*^	1100	1000
	0.01200	8.0	14.0	19	0.8	15.0	15.0	3300	1.8	61 123 +3B*^	900	1000
	0.01500	8.0	15.0	19	0.8	15.0	15.0	3300	1.8	61 153 +3B*^	900	1000
	0.01800	8.0	15.0	19	0.8	15.0	15.0	3300	2.0	61 183 +3B*^	900	1000
	0.02200	9.0	16.0	19	0.8	15.0	15.0	3300	2.0	61 223 +3B*^	700	1000
	0.02700	10.0	17.0	19	0.8	15.0	15.0	3300	2.6	61 273 +3B*^	700	1000
	0.03300	12.0	18.0	19	0.8	15.0	15.0	3300	2.8	61 333 +3B*^	650	1000
	0.03900	12.0	18.0	19	0.8	15.0	15.0	3300	2.8	61 393 +3B*^	650	1000
	0.02700	7.0	15.0	27	0.8	22.5	22.5	2100	4.5	61 273 +3B*^	650	400
	0.03300	8.0	16.5	27	0.8	22.5	22.5	2100	4.5	61 333 +3B*^	650	400
	0.03900	9.0	16.0	27	0.8	22.5	22.5	2100	4.5	61 393 +3B*^	650	400
	0.04700	9.5	17.0	27	0.8	22.5	22.5	2100	4.5	61 473 +3B*^	500	400
	0.05600	10.5	19.0	27	0.8	22.5	22.5	2100	4.5	61 563 +3B*^	-	200
	0.06800	10.5	19.0	27	0.8	22.5	22.5	2100	4.5	61 683 +3B*^	-	200
	0.08200	10.5	19.0	27	0.8	22.5	22.5	2100	4.5	61 823 +3B*^	-	200
1600V DC	0.00330	5.5	11.5	19	0.8	15.0	15.0	6000	1.1	61 332 +3C*^	1100	1000
500V AC	0.00390	5.5	11.5	19	0.8	15.0	15.0	6000	1.1	61 392 +3C*^	1100	1000
	0.00470	5.5	11.5	19	0.8	15.0	15.0	6000	1.1	61 472 +3C*^	1100	1000
	0.00560	5.5	11.5	19	0.8	15.0	15.0	6000	1.1	61 562 +3C*^	1100	1000
	0.00680	5.5	11.5	19	0.8	15.0	15.0	6000	1.1	61 682 +3C*^	1100	1000
	0.00820	6.5	12.5	19	0.8	15.0	15.0	6000	1.5	61 822 +3C*^	1100	1000
	0.01000	6.5	12.5	19	0.8	15.0	15.0	6000	1.5	61 103 +3C*^	1100	1000
	0.01200	8.0	14.0	19	0.8	15.0	15.0	6000	2.0	61 123 +3C*^	900	1000
	0.01500	8.0	14.0	19	0.8	15.0	15.0	6000	2.0	61 153 +3C*^	900	1000
	0.01800	9.0	15.0	19	0.8	15.0	15.0	6000	2.6	61 183 +3C*^	700	1000
	0.02200	9.0	16.0	19	0.8	15.0	15.0	6000	2.8	61 223 +3C*^	700	1000
	0.02700	10.5	17.0	19	0.8	15.0	15.0	6000	2.8	61 273 +3C*^	700	1000
	0.01500	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	61 153 +3C*^	650	400
	0.01800	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	61 183 +3C*^	650	400
	0.02200	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	61 223 +3C*^	650	400
	0.02700	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	61 273 +3C*^	650	400
	0.03300	7.5	17.0	27	0.8	22.5	22.5	3000	3.5	61 333 +3C*^	650	400
	0.03900	9.0	18.0	27	0.8	22.5	22.5	3000	4.5	61 393 +3C*^	500	400
	0.04700	10.5	19.0	27	0.8	22.5	22.5	3000	5.4	61 473 +3C*^	-	200
	0.05600	10.5	19.0	27	0.8	22.5	22.5	3000	5.4	61 563 +3C*^	-	200
2000V DC	0.00022	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 221 +3D*^	1100	1000
700V AC	0.00027	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 271 +3D*^	1100	1000
	0.00033	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 331 +3D*^	1100	1000
	0.00039	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 391 +3D*^	1100	1000
	0.00047	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 471 +3D*^	1100	1000
	0.00056	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 561 +3D*^	1100	1000
	0.00068	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 681 +3D*^	1100	1000
	0.00082	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 821 +3D*^	1100	1000
	0.00100	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 102 +3D*^	1100	1000
	0.00150	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 152 +3D*^	1100	1000
	0.00180	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 182 +3D*^	1100	1000
	0.00220	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 222 +3D*^	1100	1000
	0.00270	5.5	11.5	19	0.8	15.0	15.0	9500	1.1	61 272 +3D*^	1100	1000
	0.00330	6.5	12.5	19	0.8	15.0	15.0	9500	1.5	61 332 +3D*^	1100	1000
	0.00390	6.5	12.5	19	0.8	15.0	15.0	9500	1.5	61 392 +3D*^	1100	1000
	0.00470	6.5	12.5	19	0.8	15.0	15.0	9500	1.5	61 472 +3D*^	1100	1000
	0.00560	8.0	14.0	19	0.8	15.0	15.0	9500	2.0	61 562 +3D*^	900	1000
	0.00680	8.0	14.0	19	0.8	15.0	15.0	9500	2.0	61 682 +3D*^	900	1000
	0.00820	9.0	15.0	19	0.8	15.0	15.0	9500	2.6	61 822 +3D*^	700	1000
	0.01000	10.5	16.5	19	0.8	15.0	15.0	9500	2.8	61 103 +3D*^	700	1000
	0.00100	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 102 +3D*^	650	400
	0.00150	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 152 +3D*^	650	400
	0.00180	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 182 +3D*^	650	400
	0.00220	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 222 +3D*^	650	400
	0.00270	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 272 +3D*^	650	400
	0.00330	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 332 +3D*^	650	400
	0.00390	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 392 +3D*^	650	400
	0.00470	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 472 +3D*^	650	400
	0.00560	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 562 +3D*^	650	400
	0.00680	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 682 +3D*^	650	400
	0.00820	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 822 +3D*^	650	400
	0.01000	6.5	15.5	27	0.8	22.5	22.5	3500	2.8	61 103 +3D*^	650	400
	0.01500	7.5	16.5	27	0.8	22.5	22.5	3500	3.5	61 153 +3D*^	650	400
	0.01800	8.5	17.5	27	0.8	22.5	22.5	3500	4.5	61 183 +3D*^	500	400
	0.02200	9.0	17.5	27	0.8	22.5	22.5	3500	5.0	61 223 +3D*^	500	400
	0.02700	10.5	18.5	27	0.8	22.5	22.5	3500	5.4	61 273 +3D*^	500	400
	0.03300	11.5	20.0	27	0.8	22.5	22.5	3500	5.4	61 333 +3D*^	-	200

The dv/dt test is carried out for 2 times above value

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS
MPP/MPP Series - AC Applications - Dip/Box Type

MAIN APPLICATION: SMPS, motor control circuits, deflection circuit in TV sets (fly back) and monitors, electronic ballast, snubber and SCR commutating circuits and applications with high voltage and high current

CONSTRUCTION (DIP/BOX TYPE): Series constructed, low inductive wound cell of metallised polypropylene film as electrodes coated with flame retardant epoxy resin (or, encased in flame retardant box)

CLIMATIC CATEGORY: 40/100/56

APPLICABLE SPECIFICATION: IEC 384-17

CAPACITANCE VALUE, RATED VOLTAGE (AC/DC): Refer dimension chart

CAPACITANCE TOLERANCE: ± 5%, ± 10%

RATED TEMP. (AC), MAX. APPLICATION TEMP: 85°C, 100°C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

INSULATION RESISTANCE
Between leads for CR ≤ 0.33µf ≥100,000 MΩ
Between connected terminals and case >100,000MΩ

VOLTAGE PROOF: Between terminals: 1.6 times of rated voltage for 2 seconds

TAN δ

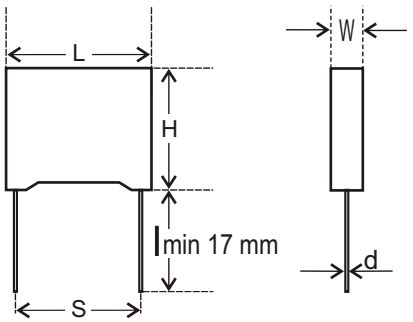
Frequency (kHz)	C_R < 0.1µf	0.1µf < C_R ≤ 1µf
At 1	0.04%	0.05%
At 10	0.06%	0.08%
At 100	0.25%	

LIFE TEST CONDITIONS
Loaded at 1.25 times of rated AC voltage at 85° C for 1000 hours

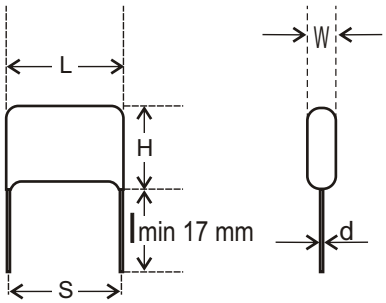
AFTER THE TEST
Δc/c: ≤ 5% of initial value
Increase of Tan δ: ≤ 0.001
Insulation resistance: ≥ 50% of the value mentioned in IR chart

For Ordering Codes and Packing Units overleaf

Box Type



Dip Type



AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS - MPP/MPP Series

AC Applications - Dip/Box Type - Ordering codes and packaging units - *Dip Type*

Rated Voltage	Rated Cap. (µF)	Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
500V AC	0.0010	4.5	9.5	14	0.6	10.0	10.0	4000	0.5	62 102 +07*^	2000	1100
	0.0012	4.5	9.5	14	0.6	10.0	10.0	4000	0.6	62 122 +07*^	2000	1100
	0.0015	4.5	9.5	14	0.6	10.0	10.0	4000	0.6	62 152 +07*^	2000	1100
	0.0018	4.5	9.5	14	0.6	10.0	10.0	4000	0.6	62 182 +07*^	2000	1100
	0.0022	5.5	11.5	14	0.6	10.0	10.0	4000	0.6	62 222 +07*^	2000	1100
	0.0027	5.5	11.5	14	0.6	10.0	10.0	4000	0.9	62 272 +07*^	2000	1100
	0.0033	6.5	12.5	14	0.6	10.0	10.0	4000	0.9	62 332 +07*^	2000	1100
	0.0039	6.5	12.5	14	0.6	10.0	10.0	4000	0.9	62 392 +07*^	2000	1100
	0.0047	6.5	12.5	14	0.6	10.0	10.0	4000	0.9	62 472 +07*^	2000	1100
	0.0015	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 152 +07*^	1100	1000
	0.0018	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 182 +07*^	1100	1000
	0.0022	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 222 +07*^	1100	1000
	0.0027	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 272 +07*^	1100	1000
	0.0033	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 332 +07*^	1100	1000
	0.0039	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 392 +07*^	1100	1000
	0.0047	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 472 +07*^	1100	1000
	0.0056	5.5	11.5	19	0.8	15.0	15.0	2500	1.1	62 562 +07*^	1100	1000
	0.0068	6.5	12.5	19	0.8	15.0	15.0	2500	1.5	62 682 +07*^	1100	1000
	0.0082	6.5	12.5	19	0.8	15.0	15.0	2500	1.5	62 822 +07*^	1100	1000
	0.0100	6.5	12.5	19	0.8	15.0	15.0	2500	1.5	62 103 +07*^	1100	1000
	0.0120	8.0	14.0	19	0.8	15.0	15.0	2500	2..0	62 123 +07*^	900	1000
	0.0150	8.0	14.0	19	0.8	15.0	15.0	2500	2.0	62 153 +07*^	900	1000
	0.0180	9.0	15.0	19	0.8	15.0	15.0	2500	2.6	62 183 +07*^	700	1000
	0.0220	10.5	16.5	19	0.8	15.0	15.0	2500	2.8	62 223 +07*^	700	1000
	0.0270	10.5	16.5	19	0.8	15.0	15.0	2500	2.8	62 273 +07*^	700	1000
	0.0180	6.5	15.5	27	0.8	22.5	22.5	1200	2.8	62 183 +07*^	650	400
	0.0220	6.5	15.5	27	0.8	22.5	22.5	1200	2.8	62 223 +07*^	650	400
	0.0270	7.5	16.5	27	0.8	22.5	22.5	1200	3.5	62 273 +07*^	650	400
	0.0330	7.5	16.5	27	0.8	22.5	22.5	1200	3.5	62 333 +07*^	650	400
	0.0390	9.0	17.5	27	0.8	22.5	22.5	1200	4.5	62 393 +07*^	500	400
	0.0470	10.5	19.0	27	0.8	22.5	22.5	1200	5.4	62 473 +07*^	-	200
	0.0560	10.5	19.0	27	0.8	22.5	22.5	1200	5.4	62 563 +07*^	-	200
700V AC	0.0010	5.5	11.5	19	0.8	15.0	15.0	5000	0.9	62 102 +09*^	1100	1000
	0.0012	5.5	11.5	19	0.8	15.0	15.0	5000	0.9	62 122 +09*^	1100	1000
	0.0015	5.5	11.5	19	0.8	15.0	15.0	5000	0.9	62 152 +09*^	1100	1000
	0.0018	5.5	11.5	19	0.8	15.0	15.0	5000	0.9	62 182 +09*^	1100	1000
	0.0022	5.5	11.5	19	0.8	15.0	15.0	5000	0.9	62 222 +09*^	1100	1000
	0.0027	5.5	11.5	19	0.8	15.0	15.0	5000	1.1	62 272 +09*^	1100	1000
	0.0033	5.5	11.5	19	0.8	15.0	15.0	5000	1.1	62 332 +09*^	1100	1000
	0.0039	6.5	12.5	19	0.8	15.0	15.0	5000	1.5	62 392 +09*^	1100	1000
	0.0047	6.5	12.5	19	0.8	15.0	15.0	5000	1.5	62 472 +09*^	1100	1000
	0.0056	6.5	12.5	19	0.8	15.0	15.0	5000	1.5	62 562 +09*^	1100	1000
	0.0068	8.0	14.0	19	0.8	15.0	15.0	5000	2.0	62 682 +09*^	900	1000
	0.0082	8.0	14.0	19	0.8	15.0	15.0	5000	2.0	62 822 +09*^	900	1000
	0.0100	9.0	15.0	19	0.8	15.0	15.0	5000	2.6	62 103 +09*^	700	1000
	0.0120	10.5	16.5	19	0.8	15.0	15.0	5000	2.8	62 123 +09*^	700	1000
	0.0150	10.5	16.5	19	0.8	15.0	15.0	5000	2.8	62 153 +09*^	700	1000
	0.0082	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	62 822 +09*^	650	400
	0.0100	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	62 103 +09*^	650	400
	0.0120	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	62 123 +09*^	650	400
	0.0150	6.5	15.5	27	0.8	22.5	22.5	3000	2.8	62 153 +09*^	650	400
	0.0180	7.5	16.5	27	0.8	22.5	22.5	3000	3.5	62 183 +09*^	650	400
	0.0220	9.0	17.5	27	0.8	22.5	22.5	3000	4.5	62 223 +09*^	500	400
	0.0270	9.0	17.5	27	0.8	22.5	22.5	3000	4.5	62 273 +09*^	500	400
	0.0330	10.5	19.0	27	0.8	22.5	22.5	3000	5.4	62 333 +09*^	-	200
	0.0390	10.5	19.0	27	0.8	22.5	22.5	3000	5.4	62 393 +09*^	-	200
900V AC	0.0010	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 102 +11*^	650	400
	0.0012	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 122 +11*^	650	400
	0.0015	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 152 +11*^	650	400
	0.0018	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 182 +11*^	650	400
	0.0022	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 222 +11*^	650	400
	0.0027	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 272 +11*^	650	400
	0.0033	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 332 +11*^	650	400
	0.0039	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 392 +11*^	650	400
	0.0047	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 472 +11*^	650	400
	0.0056	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 562 +11*^	650	400
	0.0068	6.5	15.5	27	0.8	22.5	22.5	2500	2.8	62 682 +11*^	650	400
	0.0082	7.5	16.5	27	0.8	22.5	22.5	2500	3.5	62 822 +11*^	650	400
	0.0100	7.5	16.5	27	0.8	22.5	22.5	2500	3.5	62 103 +11*^	650	400
	0.0120	9.0	17.5	27	0.8	22.5	22.5	2500	4.5	62 123 +11*^	500	400
	0.0150	10.5	19.0	27	0.8	22.5	22.5	2500	5.4	62 153 +11*^	-	200
	0.0180	10.5	19.0	27	0.8	22.5	22.5	2500	5.4	62 183 +11*^	-	200

DEKI
Film Capacitor Solutions

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS - MPP/MPP Series

AC Applications - Dip/Box Type - Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F .8/-.2	DV/DT V/µs	Wt. g	Ordering code	Packing units Ammo	Bulk
500V AC	0.0010	4.0	9.0	13.0	0.6	10.0	10	4000	0.5	67 102 +07*^	2000	1100
	0.0012	4.0	9.0	13.0	0.6	10.0	10	4000	0.6	67 122 +07*^	2000	1100
	0.0015	4.0	9.0	18.0	0.6	10.0	10	4000	0.6	67 152 +07*^	2000	1100
	0.0018	4.0	9.0	18.0	0.6	10.0	10	4000	0.6	67 182 +07*^	2000	1100
	0.0022	5.0	11.0	18.0	0.6	10.0	10	4000	0.6	67 222 +07*^	2000	1100
	0.0027	5.0	11.0	18.0	0.6	10.0	10	4000	0.9	67 272 +07*^	2000	1100
	0.0033	6.0	12.0	18.0	0.6	10.0	10	4000	0.9	67 332 +07*^	2000	1100
	0.0039	6.0	12.0	18.0	0.6	10.0	10	4000	0.9	67 392 +07*^	2000	1100
	0.0047	6.0	12.0	18.0	0.6	10.0	10	4000	0.9	67 472 +07*^	2000	1100
	0.0015	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 152 +07*^	1100	1000
	0.0018	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 182 +07*^	1100	1000
	0.0022	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 222 +07*^	1100	1000
	0.0027	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 272 +07*^	1100	1000
	0.0033	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 332 +07*^	1100	1000
	0.0039	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 392 +07*^	1100	1000
	0.0047	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 472 +07*^	1100	1000
	0.0056	5.0	10.8	18.0	0.8	15.0	15	2500	1.1	67 562 +07*^	1100	1000
	0.0068	6.0	11.9	18.0	0.8	15.0	15	2500	1.5	67 682 +07*^	1100	1000
	0.0082	6.0	11.9	18.0	0.8	15.0	15	2500	1.5	67 822 +07*^	1100	1000
	0.0100	6.0	11.9	18.0	0.8	15.0	15	2500	1.5	67 103 +07*^	1100	1000
	0.0120	7.5	13.5	18.0	0.8	15.0	15	2500	2.0	67 123 +07*^	900	1000
	0.0150	7.5	13.5	18.0	0.8	15.0	15	2500	2.0	67 153 +07*^	900	1000
	0.0180	8.5	14.5	18.0	0.8	15.0	15	2500	2.6	67 183 +07*^	700	1000
	0.0220	10.0	16.0	18.0	0.8	15.0	15	2500	2.8	67 223 +07*^	700	1000
	0.0270	10.0	16.0	18.0	0.8	15.0	15	2500	2.8	67 273 +07*^	700	1000
	0.0180	6.0	15.0	26.5	0.8	22.5	22.5	1200	2.8	67 183 +07*^	650	400
	0.0220	6.0	15.0	26.5	0.8	22.5	22.5	1200	2.8	67 223 +07*^	650	400
	0.0270	7.0	16.0	26.5	0.8	22.5	22.5	1200	3.5	67 273 +07*^	650	400
	0.0330	7.0	16.0	26.5	0.8	22.5	22.5	1200	3.5	67 333 +07*^	650	400
	0.0390	8.5	17.0	26.5	0.8	22.5	22.5	1200	4.5	67 393 +07*^	500	400
	0.0470	10.0	18.5	26.5	0.8	22.5	22.5	1200	5.4	67 473 +07*^	-	200
	0.0560	10.0	18.5	26.5	0.8	22.5	22.5	1200	5.4	67 563 +07*^	-	200
700V AC	0.0010	5.0	10.8	18.0	0.8	15.0	15.0	5000	0.9	67 102 +09*^	1100	1000
	0.0012	5.0	10.8	18.0	0.8	15.0	15.0	5000	0.9	67 122 +09*^	1100	1000
	0.0015	5.0	10.8	18.0	0.8	15.0	15.0	5000	0.9	67 152 +09*^	1100	1000
	0.0018	5.0	10.8	18.0	0.8	15.0	15.0	5000	0.9	67 182 +09*^	1100	1000
	0.0022	5.0	10.8	18.0	0.8	15.0	15.0	5000	0.9	67 222 +09*^	1100	1000
	0.0027	5.0	10.8	18.0	0.8	15.0	15.0	5000	1.1	67 272 +09*^	1100	1000
	0.0033	5.0	10.8	18.0	0.8	15.0	15.0	5000	1.1	67 332 +09*^	1100	1000
	0.0039	6.0	11.9	18.0	0.8	15.0	15.0	5000	1.5	67 392 +09*^	1100	1000
	0.0047	6.0	11.9	18.0	0.8	15.0	15.0	5000	1.5	67 472 +09*^	1100	1000
	0.0056	6.0	11.9	18.0	0.8	15.0	15.0	5000	1.5	67 562 +09*^	1100	1000
	0.0068	7.5	13.5	18.0	0.8	15.0	15.0	5000	2.0	67 682 +09*^	900	1000
	0.0082	7.5	13.5	18.0	0.8	15.0	15.0	5000	2.0	67 822 +09*^	900	1000
	0.0100	8.5	14.5	18.0	0.8	15.0	15.0	5000	2.6	67 103 +09*^	700	1000
	0.0120	10.0	16.0	18.0	0.8	15.0	15.0	5000	2.8	67 123 +09*^	700	1000
	0.0150	10.0	16.0	18.0	0.8	15.0	15.0	5000	2.8	67 153 +09*^	700	1000
	0.0082	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	67 822 +09*^	650	400
	0.0100	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	67 103 +09*^	650	400
	0.0120	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	67 123 +09*^	650	400
	0.0150	6.0	15.0	26.5	0.8	22.5	22.5	3000	2.8	67 153 +09*^	650	400
	0.0180	7.0	16.0	26.5	0.8	22.5	22.5	3000	3.5	67 183 +09*^	650	400
	0.0220	8.5	17.0	26.5	0.8	22.5	22.5	3000	4.5	67 223 +09*^	500	400
	0.0270	8.5	17.0	26.5	0.8	22.5	22.5	3000	4.5	67 273 +09*^	500	400
	0.0330	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	67 333 +09*^	-	200
	0.0390	10.0	18.5	26.5	0.8	22.5	22.5	3000	5.4	67 393 +09*^	-	200
900V AC	0.0010	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 102 +11*^	650	400
	0.0012	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 122 +11*^	650	400
	0.0015	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 152 +11*^	650	400
	0.0018	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 182 +11*^	650	400
	0.0022	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 222 +11*^	650	400
	0.0027	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 272 +11*^	650	400
	0.0033	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 332 +11*^	650	400
	0.0039	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 392 +11*^	650	400
	0.0047	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 472 +11*^	650	400
	0.0056	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 562 +11*^	650	400
	0.0068	6.0	15.0	26.5	0.8	22.5	22.5	2500	2.8	67 682 +11*^	650	400
	0.0082	7.0	16.0	26.5	0.8	22.5	22.5	2500	3.5	67 822 +11*^	650	400
	0.0100	7.0	16.0	26.5	0.8	22.5	22.5	2500	3.5	67 103 +11*^	650	400
	0.0120	8.5	17.0	26.5	0.8	22.5	22.5	2500	4.5	67 123 +11*^	500	400
	0.0150	10.0	18.5	26.5	0.8	22.5	22.5	2500	5.4	67 153 +11*^	-	200
	0.0180	10.0	18.5	26.5	0.8	22.5	22.5	2500	5.4	67 183 +11*^	-	200

INDUCTIVE SELF HEALING POLYPROPYLENE CAPACITOR
DPSH CAPACITORS

CONSTRUCTION: Film/foil inductive type internally series construction with aluminum foil as electrode and polypropylene (PP) film dielectric and MPP Film as connecting electrode, coated with flame retardant epoxy resin

CAPACITANCE RANGE: 0.001 µF to 0.01 µF

RATED VOLTAGES: 1250V DC / 500V AC, 1600V DC / 500V AC, 2000V DC / 500V AC

CAPACITANCE TOLERANCES: ±5%, ±10%

APPLICABLE SPECIFICATION: IEC 384-17

OPERATING TEMPERATURE RANGE: -40° C to +105° C

PITCH: 5 mm, 7.5 mm

VOLTAGE PROOF: 1.6 times the rated voltage for 2 sec

INSULATION RESISTANCE AT +20° C: > 100000 MΩ

TAN δ: 0.1% at 1 kHz and 0.4% at 100 kHz

VOLTAGE DERATING: For temperatures between 85° C and 105° C a decreasing factor of 1.25% per ° C on the rated voltage Ur (DC and AC) has to be applied

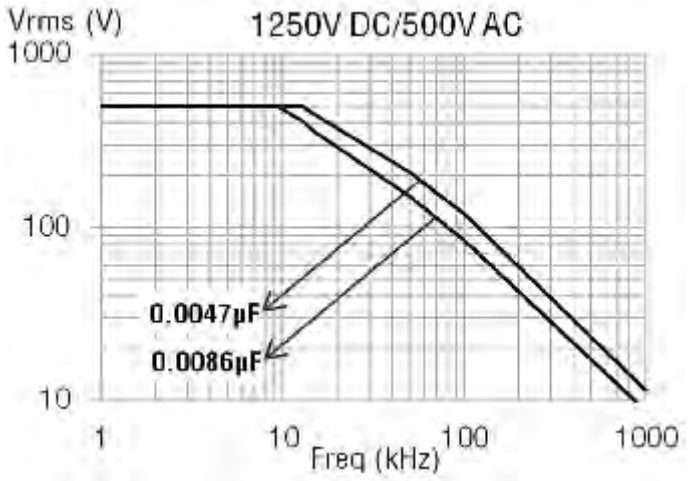
ENDURANCE TEST:
Test conditions (DC)
Temperature: +85° C ±2° C
Test duration: 1000 h
Voltage applied: 1.25 × UR (DC)

Performance
Capacitance change (Δc/c): ≤5%
DF change (Δtgδ): 1.4 times value measured before the test
Insulation resistance: ≥50% of initial limit

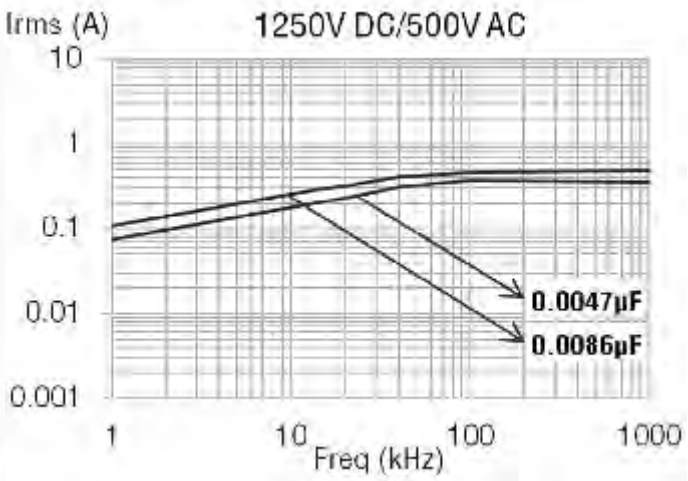
Test conditions (AC)
Temperature: +85° C ±2° C
Test duration: 1000 h
Voltage applied: 1.25 × UR (AC)

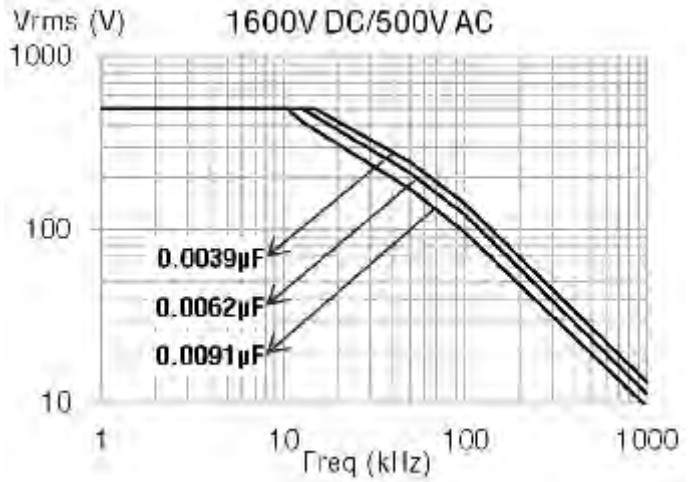
Performance
Capacitance change (Δc/c): ≤5%
DF change (Δtgδ): 1.4 times value measured before the test
Insulation resistance: ≥50% of initial limit

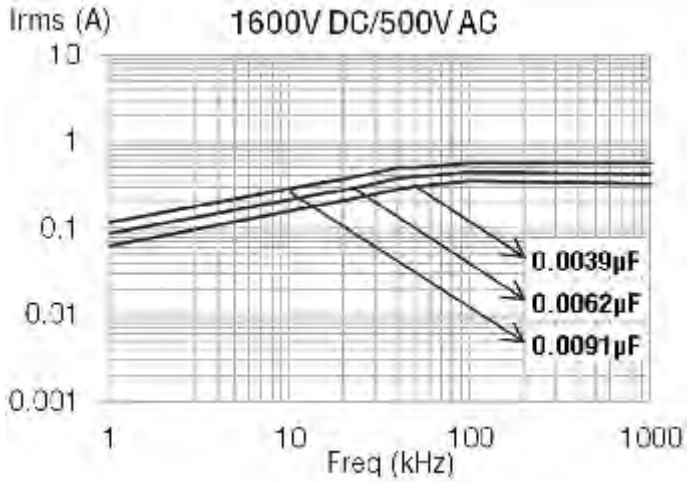
Max. Voltage (Vrms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)

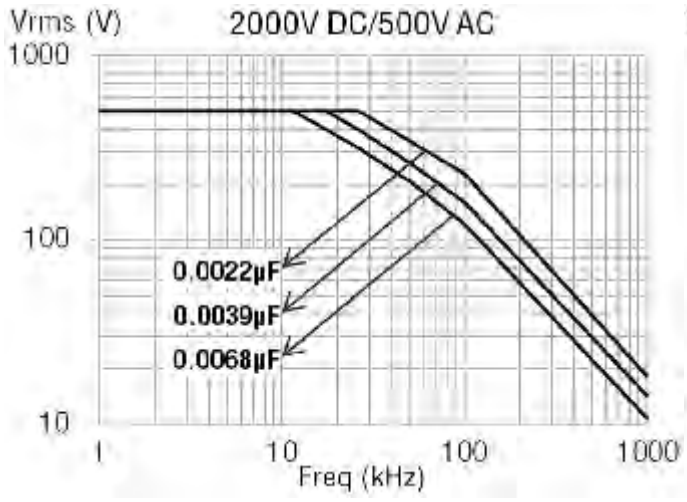


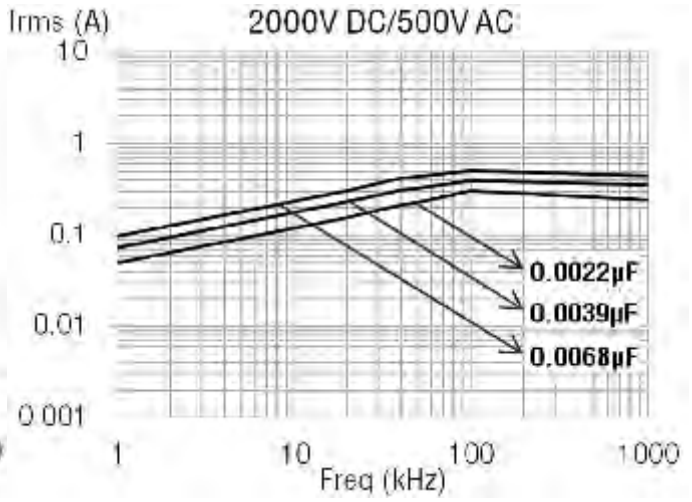
Max. Current (Irms) vs. Frequency
(Sinusoidal Waveform at T ≤ 55° C)







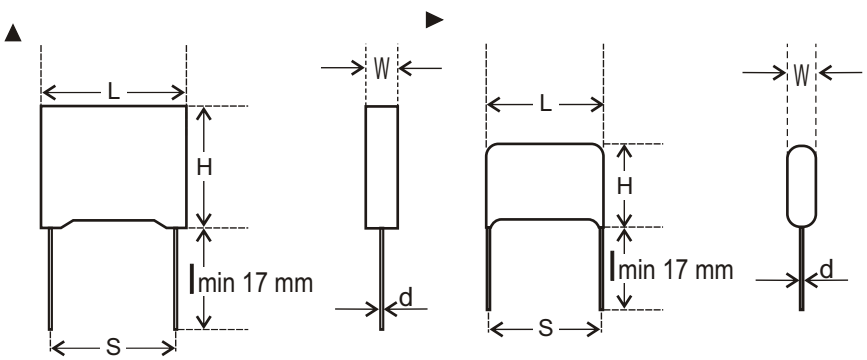




NOTE: The derating curves are based on the actual observed values.

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
1250V DC	0.0027	5.00	17.50	8.00	0.5	5.0±0.5	10000	0.500	70 272 + 3B * ^	500
	0.0033	5.00	17.50	8.00	0.5	5.0±0.5	10000	0.570	70 332 + 3B * ^	500
	0.0039	5.50	17.50	8.50	0.5	5.0±0.5	10000	0.680	70 392 + 3B * ^	500
	0.0047	5.50	17.50	9.00	0.5	5.0±0.5	10000	0.770	70 472 + 3B * ^	500
	0.0056	5.50	17.50	9.50	0.5	5.0±0.5	10000	0.820	70 562 + 3B * ^	500
	0.0068	6.50	17.50	10.00	0.5	7.0±0.5	10000	0.910	70 682 + 3B * ^	500
	0.0086	6.50	17.50	10.00	0.5	7.0±0.5	10000	1.070	70 862 + 3B * ^	500
	0.0100	7.00	17.50	10.50	0.5	7.5±0.5	10000	1.192	70 103 + 3B * ^	500
1600V DC	0.0039	6.50	17.50	9.50	0.5	5.0±0.5	10000	0.860	70 392 + 3C * ^	500
	0.0047	5.17	15.97	8.72	0.5	5.0±0.5	10000	0.970	70 472 + 3C * ^	500
	0.0056	6.50	17.50	11.00	0.5	7.0±0.5	10000	1.070	70 562 + 3C * ^	500
	0.0062	6.50	17.50	11.00	0.5	7.5±0.5	10000	1.100	70 622 + 3C * ^	500
	0.0068	7.00	17.50	11.00	0.5	7.0±0.5	10000	1.140	70 682 + 3C * ^	500
	0.0082	7.50	17.50	11.00	0.5	7.0±0.5	10000	1.270	70 822 + 3C * ^	500
	0.0086	8.00	17.50	11.50	0.5	7.0±0.5	10000	1.340	70 862 + 3C * ^	500
	0.0100	8.50	18.00	12.50	0.5	7.0±0.5	10000	1.490	70 103 + 3C * ^	500
2000V DC	0.0015	5.50	18.00	8.50	0.5	5.0±0.5	10000	0.550	70 152 + 3D * ^	500
	0.0022	6.00	18.00	9.00	0.5	5.0±0.5	10000	0.640	70 222 + 3D * ^	500
	0.0033	6.50	18.00	10.00	0.5	5.0±0.5	10000	0.820	70 332 + 3D * ^	500
	0.0047	7.50	18.00	11.00	0.5	7.5±0.5	10000	1.130	70 472 + 3D * ^	500
	0.0056	8.50	18.00	11.50	0.5	7.5±0.5	10000	1.240	70 562 + 3D * ^	500
	0.0068	9.50	18.00	12.50	0.5	7.5±0.5	10000	1.330	70 682 + 3D * ^	500
	0.0100	10.00	18.00	14.00	0.5	7.5±0.5	10000	1.740	70 103 + 3D * ^	500



INTERFERENCE SUPPRESSION CAPACITORS
(Safety Capacitors) Class X2

MAIN APPLICATION: Suitable for radio suppression in small household appliances, audio and TV circuits, general industrial applications

CONSTRUCTION: Low inductive cell of metallised polypropylene film encased in flame retardant grade UL 94 V-0 box potted with flame retardant UL 94 V-0 epoxy resin

CLIMATIC CATEGORY: 40/100/56/C

MAXIMUM OPERATING TEMPERATURE: 100° C

APPLICABLE SPECIFICATION: IEC 384-14

CAPACITANCE VALUE: Refer dimension chart

RATED VOLTAGE (AC): 275/305V

CAPACITANCE TOLERANCE: ±10%, ±20%

VOLTAGE PROOF (V DC): 2100V DC for 2 s

TAN δ: 0.1% (max.) at 1 kHz, 0.3% (max.) at 10 kHz

LIFE TEST CONDITIONS:
(Loading at elevated temperature)
Loaded at 1.25 times of rated voltage at 100 °C for 1000 hours.
Once per hour; 0.1s at 1000 V (RMS) via resistor of 47 Ω ± 5%

Criteria after the test:
Δc/c: ≤ 10%
Increase of Tan δ: ≤ 0.008, C_R≤ 1µF; ≤ 0.005, C_R>1µF at 1 kHz
Insulation resistance: > 50% of the initial value

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS}	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	> 30000 MΩ	> 10000 s
at 25° C, relative humidity ≤ 65%		

INSULATION RESISTANCE

Safety Approval X2	*Voltage*	*Value*	*Certificate Numbers*
EN 60384-14:2005 (ENEC) (= IEC 60384-14:2005 ed-3)	275/305V AC	0.01µf to 2.2 µf	2011031 A1
CB Test Certificate			STIEP-1956

The ENEC-approval together with the CB- Certificate replaces all national marks of the following countries (they have already signed the ENEC-Agreement): Austria; Belgium; Czech. Republic; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Luxembourg; Netherlands; Norway; Portugal; Slovenian; Spain; Sweden; Switzerland and United Kingdom

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk	Remarks/ Approval
275/305V AC	0.010	4.0	11.0	13.0	0.6	10.0	350	-	07 103 +03* ^	500	ENEC
	0.015	4.0	11.0	13.0	0.6	10.0	350	-	07 153 +03* ^	500	ENEC
	0.022	4.0	11.0	13.0	0.6	10.0	350	-	07 223 +03* ^	500	ENEC
	0.033	5.0	11.0	13.0	0.6	10.0	350	-	07 333 +03* ^	500	ENEC
	0.047	6.0	12.0	13.0	0.6	10.0	350	-	07 473 +03* ^	500	ENEC
	0.047	5.0	11.0	18.0	0.8	15.0	250	-	07 473 +03* ^	500	ENEC
	0.068	5.0	11.0	18.0	0.8	15.0	250	-	07 683 +03* ^	500	ENEC
	0.082	5.0	11.0	18.0	0.8	15.0	250	-	07 823 +03* ^	500	ENEC
	0.100	6.0	12.0	18.0	0.8	15.0	250	-	07 104 +03* ^	500	ENEC
	0.150	7.0	13.0	18.0	0.8	15.0	250	-	07 154 +03* ^	500	ENEC
	0.220	7.5	14.5	18.0	0.8	15.0	250	-	07 224 +03* ^	500	ENEC
	0.220	6.0	15.0	26.5	0.8	22.5	150	-	07 224 +03* ^	250	ENEC
	0.330	10.0	16.0	18.0	0.8	15.0	250	-	07 334 +03* ^	500	ENEC
	0.330	7.0	16.5	26.5	0.8	22.5	150	-	07 334 +03* ^	250	ENEC
	0.470	8.5	17.0	26.5	0.8	22.5	150	-	07 474 +03* ^	250	ENEC
	0.680	10.0	19.0	26.0	0.8	22.5	150	-	07 684 +03* ^	250	ENEC
	0.680	8.5	17.5	32.0	0.8	27.5	100	-	07 684 +03* ^	100	ENEC
	1.000	11.0	22.0	32.0	0.8	27.5	100	-	07 105 +03* ^	100	ENEC
	1.500	14.0	25.0	32.0	0.8	27.5	100	-	07 155 +03* ^	100	ENEC
	2.200	17.5	27.5	32.0	0.8	27.5	100	-	07 225 +03* ^	100	ENEC
	0.100	6.0	12.0	13.0	0.6	10.0	350	-	07 104 +03* ^	500	ENEC
	0.100	5.0	11.0	18.0	0.8	15.0	250	-	07 104 +03* ^	500	Miniature Size
	0.150	6.0	12.0	18.0	0.6	15.0	250	-	07 154 +03* ^	500	Miniature Size
	0.220	7.0	13.0	18.0	0.8	15.0	250	-	07 224 +03* ^	500	Miniature Size
	0.330	8.5	14.5	18.0	0.8	15.0	250	-	07 334 +03* ^	500	Miniature Size
	0.330	6.0	15.0	26.5	0.8	22.5	150	-	07 334 +03* ^	250	Miniature Size
	0.470	10.0	18.0	18.0	0.8	15.0	250	-	07 474 +03* ^	500	Miniature Size
	0.470	7.0	16.5	26.5	0.8	22.5	150	-	07 474 +03* ^	250	Miniature Size
	0.680	8.5	17.5	26.5	0.8	22.5	150	-	07 684 +03* ^	250	Miniature Size
	1.000	11.0	20.0	26.5	0.8	22.5	150	-	07 105 +03* ^	250	Miniature Size
	1.000	11.0	20.0	32.0	0.8	22.5	150	-	07 105 +03* ^	250	Miniature Size
	1.500	11.0	22.0	32.0	0.8	27.5	100	-	07 155 +03* ^	100	Miniature Size
	2.200	14.0	25.0	31.0	0.8	27.5	100	-	07 225 +03* ^	100	Miniature Size
	3.300	17.5	27.5	32.0	0.8	27.5	100	-	07 335 +03* ^	100	Miniature Size

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INTERFERENCE SUPPRESSION CAPACITORS
(Safety Capacitors) Class X2 Miniature Series

MAIN APPLICATION: Suitable for radio suppression in small household appliances, audio and TV circuits, general industrial applications

CONSTRUCTION: Low inductive cell of metallised polypropylene film encased in flame retardant grade UL 94 V-0 box potted with flame retardant UL 94 V-0 epoxy resin

CLIMATIC CATEGORY: 40/105/56/B

MAXIMUM OPERATING TEMPERATURE: +105°C

APPLICABLE SPECIFICATION: IEC 384-14

CAPACITANCE VALUE: Refer dimension chart

RATED VOLTAGE (AC): 275/310V

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS}	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
(or) time constant $T = C_R \times R_{IS}$	> 100000 MΩ	> 30000 s

at 20° C, relative humidity ≤ 65%

CAPACITANCE TOLERANCE: ±10%, ±20%

VOLTAGE PROOF (V DC): 2100V DC for 2 seconds

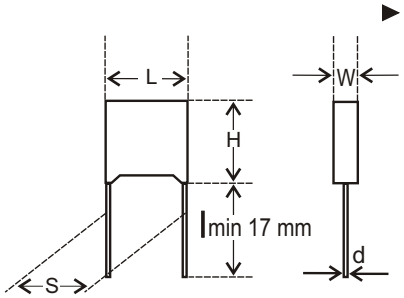
TAN δ
0.1% (maximum) at 1 kHz
0.3% (maximum) at 10 kHz

LIFE TEST CONDITIONS - MPET (Loading at elevated temperature) Loaded at 1.25 times of rated voltage at 100 °C for 1000 hours. Once per hour; 0.1 S.1000 V (RMS) via resistor of 47Ω ±5%

AFTER THE TEST
Δc/c: ≤ 10%
Change in Tan δ: ≤ 0.008, C_R≤1µF; ≤0.005, C_R>1µF at 1kHz
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS

Safety Approval X2	*Voltage*	*Value*	*Certificate Number*
UL 1414	275/310V AC	0.0047µf to 10µf	E253651



INTERFERENCE SUPPRESSION CAPACITORS

(Safety Capacitors) Class X2 Miniature Series - Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk	Remarks/ Approval
275VAC	0.0047	6.00	10.00	11.00	0.60	7.50	400	-	20 472 +03*^	500	UL
275VAC	0.0047	5.00	9.00	13.00	0.60	10.00	350	-	20 472 +03*^	500	UL
275VAC	0.0068	5.00	9.00	10.00	0.60	7.50	400	-	20 682 +03*^	500	UL
275VAC	0.0068	5.00	10.00	13.00	0.60	10.00	350	-	20 682 +03*^	500	UL
275VAC	0.0100	5.00	9.00	10.00	0.60	7.50	400	-	20 103 +03*^	500	UL
275VAC	0.0100	9.00	13.00	11.00	0.60	7.50	400	-	20 103 +03*^	500	UL
275VAC	0.0100	5.00	9.00	13.00	0.60	10.00	350	-	20 103 +03*^	500	UL
275VAC	0.0100	5.00	11.00	13.00	0.60	10.00	350	-	20 103 +03*^	500	UL
275VAC	0.0100	4.50	9.00	18.00	0.80	15.00	250	-	20 103 +03*^	500	UL
275VAC	0.0150	6.00	10.00	11.00	0.60	7.50	400	-	20 153 +03*^	500	UL
275VAC	0.0150	9.00	13.00	11.00	0.60	7.50	400	-	20 153 +03*^	500	UL
275VAC	0.0150	4.50	9.50	13.00	0.60	10.00	350	-	20 153 +03*^	500	UL
275VAC	0.0150	5.00	11.00	13.00	0.60	10.00	350	-	20 153 +03*^	500	UL
275VAC	0.0150	4.50	8.50	18.00	0.80	15.00	250	-	20 153 +03*^	500	UL
275VAC	0.0220	5.00	9.00	10.00	0.60	7.50	400	-	20 223 +03*^	500	UL
275VAC	0.0220	9.00	13.00	11.00	0.60	7.50	400	-	20 223 +03*^	500	UL
275VAC	0.0220	4.50	9.50	13.00	0.60	10.00	350	-	20 223 +03*^	500	UL
275VAC	0.0220	6.00	12.00	13.00	0.60	10.00	350	-	20 223 +03*^	500	UL
275VAC	0.0220	4.50	10.00	18.00	0.80	15.00	250	-	20 223 +03*^	500	UL
275VAC	0.0330	5.50	10.50	10.00	0.60	7.50	400	-	20 333 +03*^	500	UL
275VAC	0.0330	9.00	13.00	11.00	0.60	7.50	400	-	20 333 +03*^	500	UL
275VAC	0.0330	4.50	10.00	13.00	0.60	10.00	350	-	20 333 +03*^	500	UL
275VAC	0.0330	5.00	11.50	13.00	0.60	10.00	350	-	20 333 +03*^	500	UL
275VAC	0.0330	4.50	10.00	18.00	0.80	15.00	250	-	20 333 +03*^	500	UL
275VAC	0.0330	5.00	11.00	18.00	0.80	15.00	250	-	20 333 +03*^	500	UL
275VAC	0.0470	5.50	10.50	10.00	0.60	7.50	400	-	20 473 +03*^	500	UL
275VAC	0.0470	4.50	9.50	13.00	0.60	10.00	350	-	20 473 +03*^	500	UL
275VAC	0.0470	7.00	13.00	13.00	0.60	10.00	350	-	20 473 +03*^	500	UL
275VAC	0.0470	4.50	9.50	18.00	0.80	15.00	250	-	20 473 +03*^	500	UL
275VAC	0.0470	5.00	11.00	18.00	0.80	15.00	250	-	20 473 +03*^	500	UL
275VAC	0.0680	6.00	12.00	10.00	0.60	7.50	400	-	20 683 +03*^	500	UL
275VAC	0.0680	5.50	10.50	13.00	0.60	10.00	350	-	20 683 +03*^	500	UL
275VAC	0.0680	7.00	13.00	13.00	0.60	10.00	350	-	20 683 +03*^	500	UL
275VAC	0.0680	4.50	10.00	18.00	0.80	15.00	250	-	20 683 +03*^	500	UL
275VAC	0.0680	6.00	12.00	18.00	0.80	15.00	250	-	20 683 +03*^	500	UL
275VAC	0.1000	7.50	13.50	10.00	0.60	7.50	400	-	20 104 +03*^	500	UL
275VAC	0.1000	5.50	11.50	13.00	0.60	10.00	350	-	20 104 +03*^	500	UL
275VAC	0.1000	7.00	13.00	13.00	0.60	10.00	350	-	20 104 +03*^	500	UL
275VAC	0.1000	5.00	10.00	18.00	0.80	15.00	250	-	20 104 +03*^	500	UL
275VAC	0.1000	6.00	12.00	18.00	0.80	15.00	250	-	20 104 +03*^	500	UL
275VAC	0.1000	10.00	8.50	18.00	0.80	15.00	250	-	20 104 +03*^	500	UL
275VAC	0.1500	7.00	12.00	13.00	0.60	10.00	350	-	20 154 +03*^	500	UL
275VAC	0.1500	8.00	14.00	13.00	0.80	10.00	350	-	20 154 +03*^	500	UL
275VAC	0.1500	5.00	10.50	18.00	0.80	15.00	250	-	20 154 +03*^	500	UL
275VAC	0.1500	6.00	12.00	18.00	0.80	15.00	250	-	20 154 +03*^	500	UL
275VAC	0.1500	7.50	13.50	18.00	0.80	15.00	250	-	20 154 +03*^	500	UL
275VAC	0.1500	12.00	8.50	18.00	0.80	15.00	250	-	20 154 +03*^	500	UL
275VAC	0.1500	5.00	11.00	26.00	0.80	22.50	150	-	20 154 +03*^	250	UL
275VAC	0.2200	6.50	16.00	12.50	0.80	10.00	350	-	20 224 +03*^	500	UL
275VAC	0.2200	8.00	14.00	13.00	0.60	10.00	350	-	20 224 +03*^	500	UL
275VAC	0.2200	6.00	11.50	18.00	0.80	15.00	250	-	20 224 +03*^	500	UL
275VAC	0.2200	7.00	14.00	18.00	0.80	15.00	250	-	20 224 +03*^	500	UL
275VAC	0.2200	8.50	14.50	18.00	0.80	15.00	250	-	20 224 +03*^	500	UL
275VAC	0.2200	9.50	17.50	18.00	0.80	15.00	250	-	20 224 +03*^	500	UL
275VAC	0.2200	5.00	11.00	26.00	0.80	22.50	150	-	20 224 +03*^	250	UL
275VAC	0.2200	6.00	15.00	26.00	0.80	22.50	150	-	20 224 +03*^	250	UL
275VAC	0.2200	11.50	8.50	26.00	0.80	22.50	150	-	20 224 +03*^	250	UL

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INTERFERENCE SUPPRESSION CAPACITORS

(Safety Capacitors) Class X2 Miniature Series - Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk	Remarks/ Approval
275VAC	0.22	7.00	16.00	26.00	0.80	22.50	150	-	20 224 +03*^	250	UL
275VAC	0.33	8.00	19.00	12.50	0.80	10.00	350	-	20 334 +03*^	500	UL
275VAC	0.33	6.50	13.50	18.00	0.80	15.00	250	-	20 334 +03*^	500	UL
275VAC	0.33	8.50	14.50	18.00	0.80	15.00	250	-	20 334 +03*^	500	UL
275VAC	0.33	8.00	15.50	18.00	0.80	15.00	250	-	20 334 +03*^	500	UL
275VAC	0.33	10.00	17.50	18.00	0.80	15.00	250	-	20 334 +03*^	500	UL
275VAC	0.33	6.00	12.00	26.00	0.80	22.50	150	-	20 334 +03*^	250	UL
275VAC	0.33	7.00	17.00	26.00	0.80	22.50	150	-	20 334 +03*^	250	UL
275VAC	0.33	7.00	17.00	26.00	0.80	22.50	150	-	20 334 +03*^	250	UL
275VAC	0.33	14.50	8.50	26.00	0.80	22.50	150	-	20 334 +03*^	250	UL
275VAC	0.33	8.50	17.00	26.00	0.80	22.50	150	-	20 334 +03*^	250	UL
275VAC	0.47	10.00	20.00	12.50	0.80	10.00	350	-	20 474 +03*^	500	UL
275VAC	0.47	6.00	17.50	18.00	0.80	15.00	250	-	20 474 +03*^	500	UL
275VAC	0.47	8.00	14.00	18.00	0.80	15.00	250	-	20 474 +03*^	500	UL
275VAC	0.47	9.00	12.80	18.00	0.80	15.00	250	-	20 474 +03*^	500	UL
275VAC	0.47	10.00	16.00	18.00	0.80	15.00	250	-	20 474 +03*^	500	UL
275VAC	0.47	9.00	18.00	18.00	0.80	15.00	250	-	20 474 +03*^	500	UL
275VAC	0.47	6.50	14.50	26.00	0.80	22.50	150	-	20 474 +03*^	250	UL
275VAC	0.47	8.50	17.00	26.00	0.80	22.50	150	-	20 474 +03*^	250	UL
275VAC	0.47	10.00	19.00	26.00	0.80	22.50	150	-	20 474 +03*^	250	UL
275VAC	0.47	6.00	13.50	31.00	0.80	27.50	100	-	20 474 +03*^	100	UL
275VAC	0.47	9.00	18.00	31.00	0.80	27.50	100	-	20 474 +03*^	100	UL
275VAC	0.68	10.00	16.00	18.00	0.80	15.00	250	-	20 684 +03*^	500	UL
275VAC	0.68	11.00	18.50	18.00	0.80	15.00	250	-	20 684 +03*^	500	UL
275VAC	0.68	7.50	15.00	26.00	0.80	22.50	150	-	20 684 +03*^	250	UL
275VAC	0.68	8.00	17.00	26.00	0.80	22.50	150	-	20 684 +03*^	250	UL
275VAC	0.68	10.00	19.00	26.00	0.80	22.50	150	-	20 684 +03*^	250	UL
275VAC	0.68	6.50	15.50	31.00	0.80	27.50	100	-	20 684 +03*^	100	UL
275VAC	0.68	10.50	20.00	31.00	0.80	27.50	100	-	20 684 +03*^	100	UL
275VAC	1.00	11.50	19.00	18.00	0.80	15.00	250	-	20 105 +03*^	500	UL
275VAC	1.00	10.50	21.00	18.00	0.80	15.00	250	-	20 105 +03*^	500	UL
275VAC	1.00	9.00	17.00	26.00	0.80	22.50	150	-	20 105 +03*^	250	UL
275VAC	1.00	11.00	20.00	26.00	0.80	22.50	150	-	20 105 +03*^	250	UL
275VAC	1.00	12.00	22.00	26.00	0.80	22.50	150	-	20 105 +03*^	250	UL
275VAC	1.00	8.00	17.00	31.00	0.80	27.50	100	-	20 105 +03*^	100	UL
275VAC	1.00	13.00	22.00	31.00	0.80	27.50	100	-	20 105 +03*^	100	UL
275VAC	1.50	10.00	21.00	26.00	0.80	22.50	150	-	20 155 +03*^	250	UL
275VAC	1.50	12.00	22.00	26.00	0.80	22.50	150	-	20 155 +03*^	250	UL
275VAC	1.50	15.50	24.00	26.00	0.80	22.50	150	-	20 155 +03*^	250	UL
275VAC	1.50	9.00	18.50	31.00	0.80	27.50	100	-	20 155 +03*^	100	UL
275VAC	1.50	14.00	24.00	31.00	0.80	27.50	100	-	20 155 +03*^	100	UL
275VAC	1.50	15.00	24.00	31.00	0.80	27.50	100	-	20 155 +03*^	100	UL
275VAC	1.50	15.00	25.00	31.00	0.80	27.50	100	-	20 155 +03*^	100	UL
275VAC	1.50	17.50	27.00	31.00	0.80	27.50	100	-	20 155 +03*^	100	UL
275VAC	2.20	13.50	22.00	26.00	0.80	22.50	150	-	20 225 +03*^	250	UL
275VAC	2.20	15.00	25.00	26.00	0.80	22.50	150	-	20 225 +03*^	250	UL
275VAC	2.20	12.50	21.00	31.00	0.80	27.50	100	-	20 225 +03*^	100	UL
275VAC	2.20	16.50	26.00	31.00	0.80	27.50	100	-	20 225 +03*^	100	UL
275VAC	2.20	18.00	30.00	31.00	0.80	27.50	100	-	20 225 +03*^	100	UL
275VAC	2.20	18.50	33.00	31.00	0.80	27.50	100	-	20 225 +03*^	100	UL
275VAC	3.30	15.50	29.00	31.00	0.80	27.50	100	-	20 335 +03*^	100	UL
275VAC	3.30	17.50	26.00	31.00	0.80	27.50	100	-	20 335 +03*^	100	UL
275VAC	3.30	20.00	31.00	31.00	0.80	27.50	100	-	20 335 +03*^	100	UL
275VAC	3.30	14.50	26.00	41.50	0.80	37.50	80	-	20 335 +03*^	50	UL
275VAC	3.30	17.00	28.00	41.50	0.80	37.50	80	-	20 335 +03*^	50	UL
275VAC	4.70	20.00	30.50	31.00	1.00	27.50	100	-	20 475 +03*^	100	UL
275VAC	4.70	19.00	32.50	31.00	1.00	27.50	100	-	20 475 +03*^	100	UL

INTERFERENCE SUPPRESSION CAPACITORS

(Safety Capacitors) Class X2 Miniature Series - Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk	Remarks/ Approval
275VAC	4.700	15.50	29.00	41.50	1.00	37.50	80	-	20 475 +03*^	50	UL
275VAC	4.700	21.00	32.00	42.00	1.00	37.50	80	-	20 475 +03*^	50	UL
275VAC	6.800	22.50	35.50	41.50	1.00	37.50	80	-	20 685 +03*^	50	UL
275VAC	6.800	25.00	35.50	41.50	1.00	37.50	80	-	20 685 +03*^	50	UL
275VAC	10.000	28.00	41.50	41.50	1.00	37.50	80	-	20 106 +03*^	50	UL
275VAC	10.000	31.00	43.00	42.00	1.00	37.50	80	-	20 106 +03*^	50	UL
310VAC	0.068	4.50	10.00	18.00	0.80	15.00	250	-	20 683 +05*^	500	UL
310VAC	0.068	6.00	12.00	18.00	0.80	15.00	250	-	20 683 +05*^	500	UL
310VAC	0.100	7.50	13.50	10.00	0.60	7.50	400	-	20 104 +05*^	500	UL
310VAC	0.100	5.50	11.50	13.00	0.60	10.00	350	-	20 104 +05*^	500	UL
310VAC	0.100	7.00	13.00	13.00	0.60	10.00	350	-	20 104 +05*^	500	UL
310VAC	0.100	5.00	10.00	18.00	0.80	15.00	250	-	20 104 +05*^	500	UL
310VAC	0.100	6.00	12.00	18.00	0.80	15.00	250	-	20 104 +05*^	500	UL
310VAC	0.100	10.00	8.50	18.00	0.80	15.00	250	-	20 104 +05*^	500	UL
310VAC	0.150	7.00	12.00	13.00	0.60	10.00	350	-	20 154 +05*^	500	UL
310VAC	0.150	8.00	14.00	13.00	0.80	10.00	350	-	20 154 +05*^	500	UL
310VAC	0.150	5.00	10.50	18.00	0.80	15.00	250	-	20 154 +05*^	500	UL
310VAC	0.150	6.00	12.00	18.00	0.80	15.00	250	-	20 154 +05*^	500	UL
310VAC	0.150	7.50	13.50	18.00	0.80	15.00	250	-	20 154 +05*^	500	UL
310VAC	0.150	12.00	8.50	18.00	0.80	15.00	250	-	20 154 +05*^	500	UL
310VAC	0.150	5.00	11.00	26.00	0.80	22.50	150	-	20 154 +05*^	250	UL
310VAC	0.220	6.50	16.00	12.50	0.80	10.00	350	-	20 224 +05*^	500	UL
310VAC	0.220	8.00	14.00	13.00	0.60	10.00	350	-	20 224 +05*^	500	UL
310VAC	0.220	6.00	11.50	18.00	0.80	15.00	250	-	20 224 +05*^	500	UL
310VAC	0.220	7.00	14.00	18.00	0.80	15.00	250	-	20 224 +05*^	500	UL
310VAC	0.220	8.50	14.50	18.00	0.80	15.00	250	-	20 224 +05*^	500	UL
310VAC	0.220	9.50	17.50	18.00	0.80	15.00	250	-	20 224 +05*^	500	UL
310VAC	0.220	5.00	11.00	26.00	0.80	22.50	150	-	20 224 +05*^	250	UL
310VAC	0.220	6.00	15.50	26.00	0.80	22.50	150	-	20 224 +05*^	250	UL
310VAC	0.220	11.50	8.50	26.00	0.80	22.50	150	-	20 224 +05*^	250	UL
310VAC	0.220	7.00	16.00	26.00	0.80	22.50	150	-	20 224 +05*^	250	UL
310VAC	0.270	7.50	14.50	18.00	0.80	15.00	250	-	20 274 +05*^	500	UL
310VAC	0.330	8.00	19.00	12.50	0.80	10.00	350	-	20 334 +05*^	500	UL
310VAC	0.330	6.50	13.50	18.00	0.80	15.00	250	-	20 334 +05*^	500	UL
310VAC	0.330	8.50	14.50	18.00	0.80	15.00	250	-	20 334 +05*^	500	UL
310VAC	0.330	8.00	15.50	18.00	0.80	15.00	250	-	20 334 +05*^	500	UL
310VAC	0.330	10.00	17.50	18.00	0.80	15.00	250	-	20 334 +05*^	500	UL
310VAC	0.330	6.00	12.00	26.00	0.80	22.50	150	-	20 334 +05*^	250	UL
310VAC	0.330	7.00	17.00	26.00	0.80	22.50	150	-	20 334 +05*^	250	UL
310VAC	0.330	7.00	17.00	26.00	0.80	22.50	150	-	20 334 +05*^	250	UL
310VAC	0.330	14.50	8.50	26.00	0.80	22.50	150	-	20 334 +05*^	250	UL
310VAC	0.330	8.50	17.00	26.00	0.80	22.50	150	-	20 334 +05*^	250	UL
310VAC	0.470	10.00	20.00	12.50	0.80	10.00	350	-	20 474 +05*^	500	UL
310VAC	0.470	6.00	17.50	18.00	0.80	15.00	250	-	20 474 +05*^	500	UL
310VAC	0.470	8.00	14.00	18.00	0.80	15.00	250	-	20 474 +05*^	500	UL
310VAC	0.470	9.00	12.80	18.00	0.80	15.00	250	-	20 474 +05*^	500	UL
310VAC	0.470	10.00	16.00	18.00	0.80	15.00	250	-	20 474 +05*^	500	UL
310VAC	0.470	9.00	18.00	18.00	0.80	15.00	250	-	20 474 +05*^	500	UL
310VAC	0.470	6.50	14.50	26.00	0.80	22.50	150	-	20 474 +05*^	250	UL
310VAC	0.470	8.50	17.00	26.00	0.80	22.50	150	-	20 474 +05*^	250	UL
310VAC	0.470	10.00	19.00	26.00	0.80	22.50	150	-	20 474 +05*^	250	UL
310VAC	0.470	6.00	13.50	31.00	0.80	27.50	100	-	20 474 +05*^	100	UL
310VAC	0.470	9.00	18.00	31.00	0.80	27.50	100	-	20 474 +05*^	100	UL
310VAC	0.680	10.00	16.00	18.00	0.80	15.00	250	-	20 684 +05*^	500	UL
310VAC	0.680	11.00	18.50	18.00	0.80	15.00	250	-	20 684 +05*^	500	UL
310VAC	0.680	7.50	15.00	26.00	0.80	22.50	150	-	20 684 +05*^	250	UL

INTERFERENCE SUPPRESSION CAPACITORS

(Safety Capacitors) Class X2 Miniature Series - Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk	Remarks/ Approval
310VAC	0.680	10.00	19.00	26.00	0.80	22.50	150	-	20 684 +05*^	250	UL
310VAC	0.680	6.50	15.50	31.00	0.80	27.50	100	-	20 684 +05*^	100	UL
310VAC	0.680	10.50	20.00	31.00	0.80	27.50	100	-	20 684 +05*^	100	UL
310VAC	1.000	11.50	19.00	18.00	0.80	15.00	250	-	20 105 +05*^	500	UL
310VAC	1.000	10.50	21.00	18.00	0.80	15.00	250	-	20 105 +05*^	500	UL
310VAC	1.000	9.00	17.00	26.00	0.80	22.50	150	-	20 105 +05*^	250	UL
310VAC	1.000	11.00	20.00	26.00	0.80	22.50	150	-	20 105 +05*^	250	UL
310VAC	1.000	12.00	22.00	26.00	0.80	22.50	150	-	20 105 +05*^	250	UL
310VAC	1.000	8.00	17.00	31.00	0.80	27.50	100	-	20 105 +05*^	100	UL
310VAC	1.000	13.00	22.00	31.00	0.80	27.50	100	-	20 105 +05*^	100	UL
310VAC	1.500	10.00	21.00	26.00	0.80	22.50	150	-	20 155 +05*^	250	UL
310VAC	1.500	12.00	22.00	26.00	0.80	22.50	150	-	20 155 +05*^	250	UL
310VAC	1.500	15.50	24.00	26.00	0.80	22.50	150	-	20 155 +05*^	250	UL
310VAC	1.500	9.00	18.50	31.00	0.80	27.50	100	-	20 155 +05*^	100	UL
310VAC	1.500	14.00	24.00	31.00	0.80	27.50	100	-	20 155 +05*^	100	UL
310VAC	1.500	15.00	24.00	31.00	0.80	27.50	100	-	20 155 +05*^	100	UL
310VAC	1.500	15.00	25.00	31.00	0.80	27.50	100	-	20 155 +05*^	100	UL
310VAC	1.500	17.50	27.00	31.00	0.80	27.50	100	-	20 155 +05*^	100	UL
310VAC	2.200	13.50	22.00	26.00	0.80	22.50	150	-	20 225 +05*^	250	UL
310VAC	2.200	15.00	25.00	26.00	0.80	22.50	150	-	20 225 +05*^	250	UL
310VAC	2.200	12.50	21.00	31.00	0.80	27.50	100	-	20 225 +05*^	100	UL
310VAC	2.200	16.50	26.00	31.00	0.80	27.50	100	-	20 225 +05*^	100	UL
310VAC	2.200	18.00	30.00	31.00	0.80	27.50	100	-	20 225 +05*^	100	UL
310VAC	2.200	18.50	33.00	31.00	0.80	27.50	100	-	20 225 +05*^	100	UL
310VAC	3.300	15.50	29.00	31.00	0.80	27.50	100	-	20 335 +05*^	100	UL
310VAC	3.300	17.50	26.00	31.00	0.80	27.50	100	-	20 335 +05*^	100	UL
310VAC	3.300	20.00	31.00	31.00	0.80	27.50	100	-	20 335 +05*^	100	UL
310VAC	3.300	14.50	26.00	41.50	0.80	37.50	80	-	20 335 +05*^	50	UL
310VAC	3.300	17.00	28.00	41.50	0.80	37.50	80	-	20 335 +05*^	50	UL
310VAC	4.700	20.00	30.50	31.00	1.00	27.50	100	-	20 475 +05*^	100	UL
310VAC	4.700	19.00	32.50	31.00	1.00	27.50	100	-	20 475 +05*^	100	UL
310VAC	4.700	15.50	29.00	41.50	1.00	37.50	80	-	20 475 +05*^	50	UL
310VAC	4.700	21.00	32.00	42.00	1.00	37.50	80	-	20 475 +05*^	50	UL
310VAC	6.800	22.50	35.50	41.50	1.00	37.50	80	-	20 685 +05*^	50	UL
310VAC	6.800	25.00	35.50	41.50	1.00	37.50	80	-	20 685 +05*^	50	UL
310VAC	10.000	28.00	41.50	41.50	1.00	37.50	80	-	20 106 +05*^	50	UL
310VAC	10.000	31.00	43.00	42.00	1.00	37.50	80	-	20 106 +05*^	50	UL

CDI CAPACITORS

MAIN APPLICATION: Capacitor discharge ignition used in twowheeler ignition systems

CONSTRUCTION: Low inductive cell of metallised polyester or metallised polypropylene film coated with flame retardant grade epoxy resin

CLIMATIC CATEGORY: 40/85/56

APPLICABLE SPECIFICATION: IEC 384-2 (MPET), IEC 384-16 (MPP)

CAPACITANCE VALUE: Refer dimension chart

RATED VOLTAGE (DC): 400V

CAPACITANCE TOLERANCE: ±10%

VOLTAGE PROOF
Between terminals: 1.6 times of rated voltage for 2 seconds

INSULATION RESISTANCE
Minimum Insulation Resistance R_{IS} >10000s at 100V DC
(or) time constant $T=C_R \times R_{IS}$
at 25° C, relative humidity ≤ 70%

TAN δ
3.0 % (maximum) at 100 kHz (MPET)
0.5 % (maximum) at 100 kHz (MPP)

LIFE TEST CONDITIONS - MPET (Loading at elevated temperature) Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of the category voltage at 100° C for 1000 hours. Category voltage is 80% of rated voltage

AFTER THE TEST
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.002, C_R > 1 µf
Insulation resistance: ≥ 50% of the value mentioned in IR chart

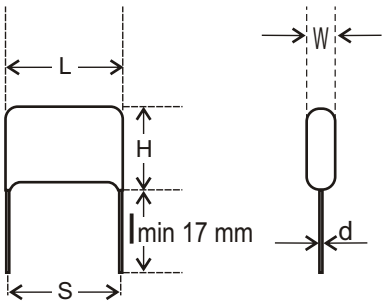
LIFE TEST CONDITIONS - MPP (Loading at elevated temperature) Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours. Category voltage is 80% of rated voltage

AFTER THE TEST
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.002
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Tested as per IEC 384-16 for MPP and IEC 384-2 for MPET

Ordering codes and packaging units

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	Wt. g	Ordering code	Packing units Bulk
400V DC	1.00	8	18	32	0.8	27.5	4.0	08 105 +2G*^	500
MPET Series	1.40	9	18	32	0.8	27.5	5.5	08 145 +2G*^	250
	1.50	10	18	32	0.8	27.5	6.1	08 155 +2G*^	250
	2.20	11	22	32	0.8	27.5	10.2	08 225 +2G*^	250
	3.30	13	24	32	0.8	27.5	12.5	08 335 +2G*^	250
400V DC	0.68	12	20	32	0.8	27.5	4.5	09 684 +2G*^	250
MPP Series	1.00	13	24	32	0.8	27.5	6.0	09 105 +2G*^	250
	1.40	14	25	32	0.8	27.5	10.0	09 145 +2G*^	250
	1.50	14	25	32	0.8	27.5	12.5	09 155 +2G*^	250
	2.20	16	28	32	0.8	27.5	14.0	09 225 +2G*^	250



DEKI
Film Capacitor Solutions

METALLISED POLYESTER FILM CAPACITORS
Economic type

MAIN APPLICATION: Mainly used in switch type fan regulators

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals

TAN δ (DISSIPATION FACTOR): 0.8% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

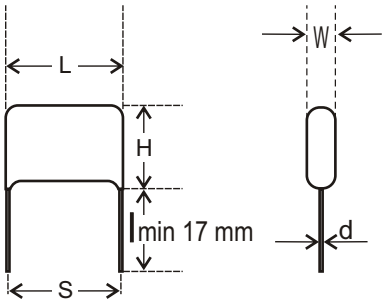
LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 450V AC at ambient temperature for 2 hours
After the test:
Δc/c: ≤10% of initial value
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250V AC	1.0	6.0	14.0	31	0.8	27.5	57 105 + 02 *^	250
MPET	1.2	7.0	15.0	31	0.8	27.5	57 125 + 02 *^	250
	1.5	7.0	16.0	31	0.8	27.5	57 155 + 02 *^	250
	2.0	8.0	17.0	31	0.8	27.5	57 205 + 02 *^	250
	2.2	8.0	18.0	31	0.8	27.5	57 225 + 02 *^	250
	2.4	7.5	21.0	31	0.8	27.5	57 245 + 02 *^	250
	2.5	9.0	19.0	31	0.8	27.5	57 255 + 02 *^	250
	3.0	10.0	19.0	31	0.8	27.5	57 305 + 02 *^	250
	3.3	8.5	22.5	31	0.8	27.5	57 335 + 02 *^	250
	3.6	9.0	23.0	31	0.8	27.5	57 365 + 02 *^	250
	3.7	11.0	20.0	31	0.8	27.5	57 375 + 02 *^	250
	4.3	10.0	24.0	31	0.8	27.5	57 435 + 02 *^	250



METALLISED POLYESTER FILM CAPACITORS

Switch type

MAIN APPLICATION: Mainly used in switch type fan regulators

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals.

TAN δ (DISSIPATION FACTOR): 0.8% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 450V AC at ambient temperature for 2 hours
After the test:
Δc/c: ≤10% of initial value
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250V DC	1.0	6.2	14.0	27.0	0.8	22.5	02 105 + 2E1B	400
	1.8	8.2	17.3	27.0	0.8	22.5	02 185 + 2E1B	400
	2.2	8.5	19.0	27.0	0.8	22.5	02 225 + 2E1B	400
	3.3	11.4	20.4	27.0	0.8	22.5	02 335 + 2E1B	400
250V AC	1.0	6.1	13.7	31.0	0.8	27.5	46 105 + SW1A	400
	1.2	6.5	15.0	31.0	0.8	27.5	46 125 + SW1A	250
	1.5	7.0	16.0	31.0	0.8	27.5	46 155 + SW1A	250
	2.2	6.8	20.2	31.0	0.8	27.5	46 225 + SW1A	250
	2.5	8.1	22.0	31.0	0.8	27.5	46 255 + SW1A	250
	2.7	8.2	22.1	31.0	0.8	27.5	46 275 + SW1A	250
	3.3	9.2	22.6	31.0	0.8	27.5	46 335 + SW1A	250
	3.5	9.4	23.1	31.0	0.8	27.5	46 355 + SW1A	250
	3.7	10.0	23.5	31.0	0.8	27.5	46 375 + SW1A	250
	3.9	10.1	23.8	31.0	0.8	27.5	46 395 + SW1A	250
	4.3	11.0	24.5	31.0	0.8	27.5	46 435 + SW1A	250
250V AC	2.2	9.0	18.0	31.0	0.8	27.5	46 225 + SW1B	250
	2.5	10.0	18.0	31.0	0.8	27.5	46 255 + SW1B	250
	2.7	10.5	19.0	31.0	0.8	27.5	46 275 + SW1B	250
	3.3	11.0	20.0	31.0	0.8	27.5	46 335 + SW1B	250
	3.5	11.0	21.0	31.0	0.8	27.5	46 355 + SW1B	250
	3.7	13.0	20.0	31.0	0.8	27.5	46 375 + SW1B	250
	3.9	13.0	20.0	31.0	0.8	27.5	46 395 + SW1B	250
	4.3	13.0	22.0	31.0	0.8	27.5	46 435 + SW1B	250

DEKI
Film Capacitor Solutions

METALLISED POLYESTER FILM CAPACITORS

Socket type

MAIN APPLICATION: Mainly used in switch type fan regulators

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals

TAN δ (DISSIPATION FACTOR): 0.8% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute.
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

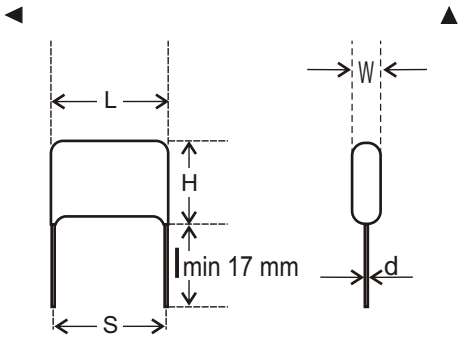
b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

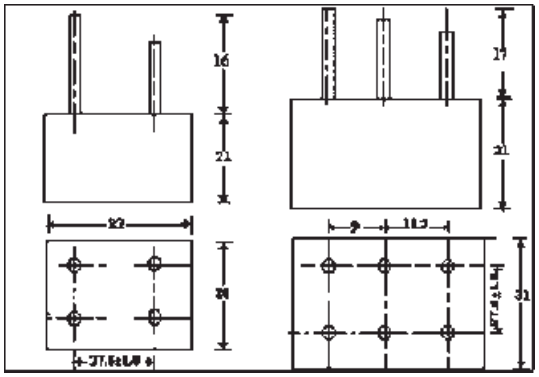
c) Lot to lot testing: Loaded at 450V AC at ambient temperature for 2 hours
After the test:
Δc/c: ≤10% of initial value
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250V AC	1.0	6.2	16.0	31.0	0.8	27.5	02 105 +02*^	250
MPET Series	1.2	8.0	18.0	31.0	0.8	27.5	02 125 +02*^	250
	1.5	10.0	18.0	31.0	0.8	27.5	02 155 +02*^	250
	2.2	10.3	19.6	31.0	0.8	27.5	02 225 +02*^	250
	2.4	11.3	20.8	31.0	0.8	27.5	02 245 +02*^	250
	2.7	11.8	21.5	31.0	0.8	27.5	02 275 +02*^	250
	3.3	13.7	21.2	31.0	0.8	27.5	02 335 +02*^	250
	3.5	13.8	22.7	31.0	0.8	27.5	02 355 +02*^	250

EPOXY COATED TYPE:





CAPACITOR PACK
2 Capacitor pack (MPP): Capacitance Value: 2.2, 3.1 µF
Rated Voltage: 220 V AC, Tolerance: +10%

3 Capacitor pack (MPP): Capacitance Value: 1.0, 2.2, 3.1 µF
Rated Voltage: 220 V AC, Tolerance: +10%

METALLISED POLYPROPYLENE FILM CAPACITORS

Socket type

MAIN APPLICATION: Mainly used in switch type fan regulators

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals

TAN δ (DISSIPATION FACTOR): 0.1% (max) at 1 kHz

INSULATION RESISTANCE

Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute

Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

LIFE TEST CONDITIONS

a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.

After the test:

Δc/c: ≤ 5% of initial value

Change in Tan δ: ≤ 0.004 of initial value

Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator

Input supply: 240V AC, **Load:** Fan Motor

After the test:

Δc/c: ≤ 5% of initial value

Change in Tan δ: ≤ 0.004 of initial value

Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 540V AC at ambient temperature for 2 hours

After the test:

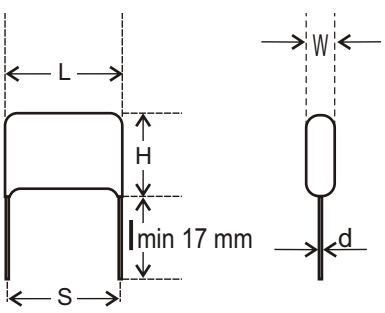
Δc/c: ≤10% of initial value

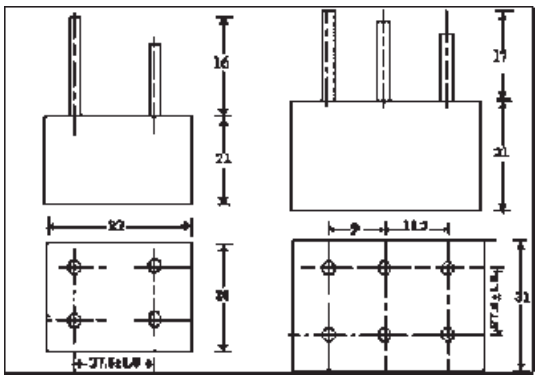
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250V AC	1.0	8.0	17.0	31.0	0.8	27.5	04 105 + 02 *^	200
MPP	1.5	9.0	18.0	31.0	0.8	27.5	04 155 + 02 *^	200
	1.6	10.0	19.0	31.0	0.8	27.5	04 165 + 02 *^	200
	2.2	12.0	20.0	31.0	0.8	27.5	04 225 + 02 *^	200
	2.5	13.0	21.0	31.0	0.8	27.5	04 255 + 02 *^	200
	2.7	14.0	22.0	31.0	0.8	27.5	04 275 + 02 *^	200
	3.2	15.0	23.0	31.0	0.8	27.5	04 325 + 02 *^	200
	3.3	15.0	23.0	31.0	0.8	27.5	04 335 + 02 *^	200
250V AC	2.5	8.0	23.0	31.0	0.8	27.5	64 255 + 02 *^	200
	4.2	13.0	24.0	31.0	0.8	27.5	64 425 + 02 *^	200

EPOXY COATED TYPE:





CAPACITOR PACK

2 Capacitor pack (MPP): Capacitance Value: 2.2, 3.1 µF
Rated Voltage: 220 V AC, Tolerance: +10%

3 Capacitor pack (MPP): Capacitance Value: 1.0, 2.2, 3.1 µF
Rated Voltage: 220 V AC, Tolerance: +10%

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METALLISED SAFETY POLYESTER FILM CAPACITORS
Ultima safety type

MAIN APPLICATION: Mainly used in switch/socket type fan regulators where no fire/explosion is allowed

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polyester film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals

TAN δ (DISSIPATION FACTOR): 0.8% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute.
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

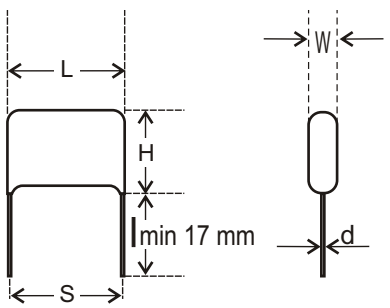
LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours
After the test:
Δc/c: ≤ 10% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 540V AC at ambient temperature for 2 hours
After the test:
Δc/c: ≤10% of initial value
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250	1.5	8.5	14.5	31	0.8	27.5	86 155 + 02 *^	250
V AC	1.6	9.0	15.0	31	0.8	27.5	86 165 + 02 *^	250
	2.0	7.5	21.0	31	0.8	27.5	86 205 + 02 *^	250
	2.2	8.5	19.0	31	0.8	27.5	86 225 + 02 *^	250
	2.5	11.0	17.0	31	0.8	27.5	86 255 + 02 *^	250
	2.6	11.0	17.0	31	0.8	27.5	86 265 + 02 *^	250
	2.7	10.0	19.0	31	0.8	27.5	86 275 + 02 *^	250
	3.2	11.0	19.0	31	0.8	27.5	86 325 + 02 *^	250
	3.3	11.0	20.0	31	0.8	27.5	86 335 + 02 *^	250
	4.0	13.0	21.5	31	0.8	27.5	86 405 + 02 *^	250
	4.3	12.0	22.0	31	0.8	27.5	86 435 + 02 *^	250



METALLISED SAFETY FILM CAPACITORS

Optima safety type

MAIN APPLICATION: Mainly used in switch/socket type fan regulators where no fire/explosion is allowed

CONSTRUCTION (DIP TYPE): Low inductive cell of mixed dielectric with flame retardant grade epoxy resin

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals.

TAN δ (DISSIPATION FACTOR): 0.5% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute.
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

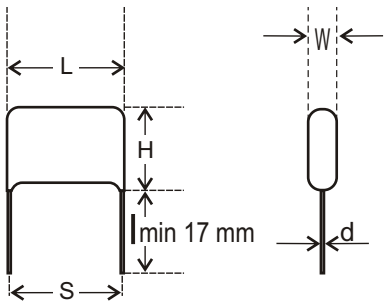
LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.
After the test:
Δc/c: ≤ 10% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: ≤ 5% of initial value
Change in Tan δ: ≤ 0.004 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 540V AC at ambient temperature for 2 hours
After the test:
Δc/c: ≤10% of initial value
Change in Tan δ: ≤ 0.004 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250	1.0	8	17.0	31	0.8	27.5	69 105 + 02 *^	250
V AC	2.2	11	22.5	31	0.8	27.5	69 225 + 02 *^	250
	3.3	12	21.0	31	0.8	27.5	69 335 + 02 *^	250
	3.7	13	21.0	31	0.8	27.5	69 375 + 02 *^	250



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METALLISED SAFETY POLYPRPYLENE FILM CAPACITORS
Ultima safety Type

MAIN APPLICATION: Mainly used in switch/socket type fan regulators where no fire/explosion is desired

CONSTRUCTION (DIP TYPE): Low inductive cell of metallised polypropylene film coated with flame retardant grade epoxy powder

CLIMATIC CATEGORY: 40/85/21

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%, ±10%

VOLTAGE PROOF: 1.6*Ur for 2 seconds between the terminals.

TAN δ (DISSIPATION FACTOR): 0.1% (max) at 1 kHz

INSULATION RESISTANCE
Minimum insulation resistance R_{IS} measured at 100V DC for 1 minute.
Or, time constant $T = C_R \times R_{IS} > 2500$ s at 25° C, relative humidity ≤70%

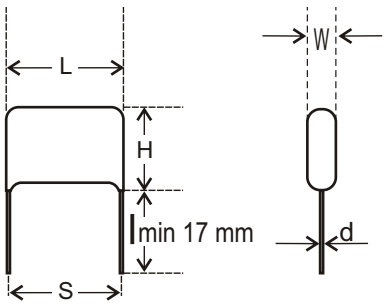
LIFE TEST CONDITIONS
a) Endurance Test: Loaded at 1.1 times of rated voltage at 70° C for 500 hours.
After the test:
Δc/c: ≤ 10% of initial value
Change in Tan δ: ≤ 0.002 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

b) Switching test: > 20,000 cycles of 4 step / 5 step switch type fan regulator
Input supply: 240V AC, **Load:** Fan Motor
After the test:
Δc/c: **≤ 5% of initial value**
Change in Tan δ: ≤ 0.002 of initial value
Insulation resistance: ≥ 50% of the value specified in data sheet

c) Lot to lot testing: Loaded at 540V AC at ambient temperature for 2 hours
After the test:
Δc/c: **≤10% of initial value**
Change in Tan δ: ≤ 0.002 of initial value

Ordering codes and packaging units

Rated Voltage	Rated cap. (µfd)	Maximum Dimensions (mm) W ±0.5	H ±0.5	L ±0.5	d ±0.5	S ±0.5	Ordering code	Packing units Bulk
250	1.0	8.0	17.0	31	0.8	27.5	74 105 + 02 *^	250
V AC	1.5	10.0	19.0	31	0.8	27.5	74 155 + 02 *^	250
	2.2	11.5	21.0	31	0.8	27.5	74 225 + 02 *^	250
	2.5	14.0	21.0	31	0.8	27.5	74 255 + 02 *^	250
	3.1	14.0	24.0	31	0.8	27.5	74 315 + 02 *^	250
	3.3	14.0	24.0	31	0.8	27.5	74 335 + 02 *^	250
	2.2	9.0	21.0	31	0.8	27.5	44 225 + 02 *^	250
	3.3	14.0	21.0	31	0.8	27.5	44 335 + 02 *^	250
	3.3	11.5	20.5	31	0.8	27.5	84 335 + 02 *^	250



AC METALLISED POLYPROPYLENE FILM CAPACITORS
MPP AC Applications

MAIN APPLICATION: This series is specially designed for energy meter applications, voltage dropper, capacitive power supply, etc

CONSTRUCTION (DIP TYPE): Low inductive wound cell of metallised polypropylene film coated with flame retardant epoxy resin or encased in flame retardant box UL 94 V0 with epoxy resin

CLIMATIC CATEGORY: 40/100/56
Between 85°C and 100°C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAPACITANCE VALUE RATED VOLTAGE (AC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%

VOLTAGE PROOF: Between terminals: 1250 V DC for 2 seconds

INSULATION RESISTANCE

	$C_R \leq 0.33$ µF	$C_R > 0.33$ µF
Minimum Insulation Resistance R_{IS}		
(or) time constant $T = C_R \times R_{IS}$	> 100000 MΩ	> 30000 s

at 20° C, relative humidity ≤ 70%

TAN δ (DISSIPATION FACTOR) AT 20° C

Frequency (kHz)	$C_R \leq 0.1$ µF	0.1 µF ≤ C_R ≤ 1 µF
At 1	0.05%	0.05%
At 10	0.1%	0.08%

DAMP HEAT TEST (Steady state)

Temperature:	+40° C ± 2° C
Relative humidity:	93 ± 2% RH
Duration:	1000 hours

Criteria after the test:
Δc/c: ≤ 10% of initial value
Increase in Tan δ: ≥ 0.002, C_R>1µF
Insulation resistance: ≥ 50% of the value mentioned in IR chart

LIFE TEST CONDITIONS (Loading at elevated temperature)
Loaded at 1.1 times of rated voltage at 70° C for 1000 hours
Criteria after the test:
Δc/c: ≤ 10% of initial value
Increase in Tan δ: ≥ 0.002, C_R>1µF
Insulation resistance: ≥ 50% of the value mentioned in IR chart

APPROVALS: Capacitors are tested as per IEC 384-17

Ordering codes and packaging units - *Dip Type*

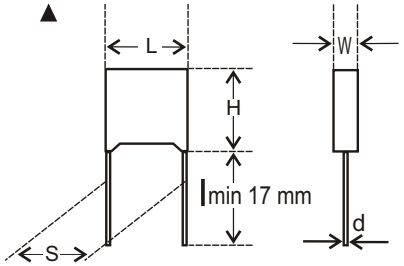
Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F -4	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
275V AC	0.10	6.0	11.0	13	0.6	10.0	10.0	400	-	17 104 +03*^	500
	0.15	7.0	13.0	13	0.6	10.0	10.0	400	-	17 154 +03*^	500
	0.22	8.0	15.0	13	0.6	10.0	10.0	400	-	17 224 +03*^	500
305V AC	0.10	6.5	11.0	13	0.6	10.0	10.0	475	-	17 104 +04*^	500
	0.15	7.5	13.0	13	0.6	10.0	10.0	475	-	17 154 +04*^	500
310V AC	0.10	6.5	12.5	13	0.6	10.0	10.0	475	-	17 104 +05*^	500
440V AC	0.10	7.0	13.0	19	0.8	15.0	15.0	340	-	17 104 +06*^	500
	0.15	8.0	14.0	19	0.8	15.0	15.0	340	-	17 154 +06*^	500
	0.18	8.0	15.0	19	0.8	15.0	15.0	340	-	17 184 +06*^	500
	0.19	8.0	15.0	19	0.8	15.0	15.0	340	-	17 194 +06*^	500
	0.22	9.0	16.0	19	0.8	15.0	15.0	340	-	17 224 +06*^	500
	0.27	10.0	16.0	19	0.8	15.0	15.0	340	-	17 274 +06*^	500
	0.33	10.0	18.0	19	0.8	15.0	15.0	340	-	17 334 +06*^	500
440V AC	0.15	6.0	13.0	26	0.8	22.5	22.5	170	-	17 154 +06*^	500
	0.20	7.5	13.0	27	0.8	22.5	22.5	170	-	17 204 +06*^	500
	0.22	7.0	14.0	26	0.8	22.5	22.5	170	-	17 224 +06*^	500
	0.24	7.5	14.0	27	0.8	22.5	22.5	170	-	17 244 +06*^	500
	0.27	8.0	14.0	26	0.8	22.5	22.5	170	-	17 274 +06*^	500
	0.30	8.0	14.0	27	0.8	22.5	22.5	170	-	17 304 +06*^	500
	0.33	9.0	15.0	26	0.8	22.5	22.5	170	-	17 334 +06*^	500
	0.39	9.0	16.0	26	0.8	22.5	22.5	170	-	17 394 +06*^	500
	0.41	9.0	17.0	26	0.8	22.5	22.5	170	-	17 414 +06*^	500
	0.47	10.0	17.0	26	0.8	22.5	22.5	170	-	17 474 +06*^	500
	0.56	10.0	18.0	26	0.8	22.5	22.5	170	-	17 564 +06*^	500
	0.68	11.0	20.0	26	0.8	22.5	22.5	170	-	17 684 +06*^	500
	0.82	12.0	21.0	26	0.8	22.5	22.5	170	-	17 824 +06*^	500
	1.00	13.0	23.0	26	0.8	22.5	22.5	170	-	17 105 +06*^	500

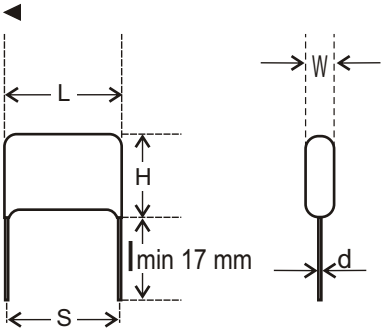
DEKI
Film Capacitor Solutions

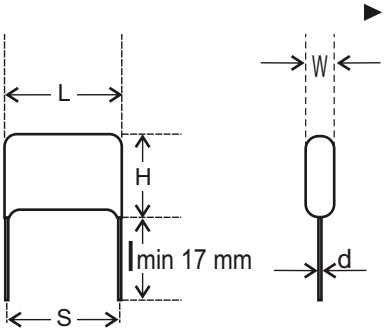
AC METALLISED POLYPROPYLENE FILM CAPACITORS

MPP AC Applications - Ordering codes and packaging units - *Box Type*

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F -4	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
440V AC	0.10	6.0	12.0	18.0	0.8	15.0	15.0	340	-	22 104 +06*^	500
	0.15	7.5	13.5	18.0	0.8	15.0	15.0	340	-	22 154 +06*^	500
	0.22	8.5	14.5	18.0	0.8	15.0	15.0	340	-	22 224 +06*^	500
	0.27	10.0	16.0	18.0	0.8	15.0	15.0	340	-	22 274 +06*^	500
	0.33	10.0	16.0	18.0	0.8	15.0	15.0	340	-	22 334 +06*^	500
440V AC	0.15	6.0	15.0	26.5	0.8	22.5	22.5	170	-	22 154 +06*^	500
	0.22	6.0	15.0	26.5	0.8	22.5	22.5	170	-	22 224 +06*^	500
	0.27	7.0	16.0	26.5	0.8	22.5	22.5	170	-	22 274 +06*^	500
	0.33	8.5	17.0	26.5	0.8	22.5	22.5	170	-	22 334 +06*^	500
	0.39	8.5	17.0	26.5	0.8	22.5	22.5	170	-	22 394 +06*^	500
	0.41	8.5	17.0	26.5	0.8	22.5	22.5	170	-	22 414 +06*^	500
	0.47	10.0	18.5	26.5	0.8	22.5	22.5	170	-	22 474 +06*^	500
	0.56	10.0	18.5	26.5	0.8	22.5	22.5	170	-	22 564 +06*^	500
	0.68	10.0	18.5	26.5	0.8	22.5	22.5	170	-	22 684 +06*^	500
	0.82	11.0	20.0	26.5	0.8	22.5	22.5	170	-	22 824 +06*^	500
	1.00	12.0	22.0	26.5	0.8	22.5	22.5	170	-	22 105 +06*^	500







CAPACITORS WITH HIGH CAPACITANCE STABILITY DESIGNED FOR AC APPLICATIONS
MPET AC

MAIN APPLICATION: This series is specially designed for energy meter applications, Voltage dropper, capacitive power supply and Low end LED driver application for long stability of capacitance value

CONSTRUCTION: Series constructed metallized polyester film and normal metallized polyester film as internal electrodes which are protected with solvent resistant & flame retardant epoxy resin or encased in a flame retardant grade PBT box class UL 94 V0 with flame retardant grade resin

CLIMATIC CATEGORY: 55/100/56 as per IEC 60068-1

OPERATING TEMPERATURE RANGE: -55° C to 100° C

RELATED STANDARD: IEC 384-2

ELECT. CHARACTERISTICS: Rated Voltage - 310V AC / 560V DC

TEMPERATURE DERATING: For temperatures between +85°C and +100°C a decreasing factor of 1.25% per degree Celsius on the rated voltage is applied

CAPACITANCE TOLERANCE: ±5%, ±10%, ±20%

VOLTAGE PROOF BETWEEN TERMINALS (DC): 1.6*Ur for 2 sec

INSULATION RESISTANCE:
Test conditions:
Temperature: +25° C ±2° C
Voltage applied: 100V DC for 1min.

Criteria after the test:
For C ≤ 0.33µf, I_R ≥ 30000MΩ
For C > 0.33µf, τ ≥ 10000S (τ=I_R × C)

Tanδ at +25°C ±2°C:

Frequency kHz	C<1 µf	C>1 µf
1	0.010	0.01
10	0.015	0.03

DAMP HEAT TEST (Steady state):
Test 1:

Temperature	+40° C ± 2° C
Relative humidity	93 ± 2% RH
Duration	1000 hours

Test 2:

Temperature	+50° C ± 2° C
Voltage	250V AC
Relative humidity	93 ± 2% RH
Duration	1000 hours

Criteria after the test:

Capacitance change (ΔC/C)	≤5%
ΔTan δ:	≤0.005 at 1 kHz
Insulation resistance	≥50% of initial limit

LIFE TEST:
Test conditions

Temperature	+85° C ±2° C
Voltage applied	1.25 * U_r~
Duration	1000 hours

Criteria after the test:

Capacitance change (ΔC/C):	≤8%
ΔTan δ	≤0.003 at 1 kHz
Insulation resistance	≥50% of initial limit

Ordering codes and packaging units - Dip Type

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F +0.8 / -0.2	DV/DT V/µs	Ordering code	Packing units Bulk
310V AC	0.10	6.5	12.0	18	0.8	15.0	15.0	300	24 104 +05*^	500
	0.15	7.5	13.0	18	0.8	15.0	15.0	300	24 154 +05*^	500
	0.18	8.5	13.5	18	0.8	15.0	15.0	300	24 184 +05*^	500
	0.22	9.0	14.0	18	0.8	15.0	15.0	300	24 224 + 05*^	500
	0.27	10.0	15.0	18	0.8	15.0	15.0	300	24 274 + 05*^	500
	0.33	11.0	16.0	18	0.8	15.0	15.0	300	24 334 + 05*^	500
	0.39	11.5	17.0	18	0.8	15.0	15.0	300	24 394 + 05*^	500
310V AC	0.18	6.5	12.0	25	0.8	22.5	22.5	200	24 184 +05*^	500
	0.22	7.0	12.5	25	0.8	22.5	22.5	200	24 224 + 05*^	500
	0.27	7.5	13.0	25	0.8	22.5	22.5	200	24 274 + 05*^	500
	0.33	7.5	14.5	25	0.8	22.5	22.5	200	24 334 + 05*^	500
	0.39	8.0	15.0	25	0.8	22.5	22.5	200	24 394 + 05*^	500
	0.41	8.5	15.5	25	0.8	22.5	22.5	200	24 414 + 05*^	500
	0.47	9.0	16.0	25	0.8	22.5	22.5	200	24 474 + 05*^	500
	0.56	9.5	16.5	25	0.8	22.5	22.5	200	24 564 + 05*^	500
	0.68	10.5	17.5	25	0.8	22.5	22.5	200	24 684 + 05*^	500
	1.00	12.5	19.5	25	0.8	22.5	22.5	200	24 105 + 05*^	500

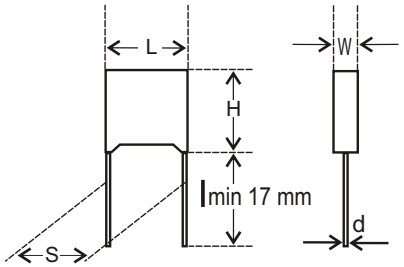
DEKI
Film Capacitor Solutions

CAPACITORS WITH HIGH CAPACITANCE STABILITY DESIGNED FOR AC APPLICATIONS

MPET AC

Ordering codes and packaging units - Box Type

Rated Voltage	Rated Cap. (µF)	Dimensions(mm) W ±0.5	H ±0.5	L ±0.5	d ±0.05	S ±0.5	F +0.8 / -0.2	DV/DT V/µs	Ordering code	Packing units Bulk
310V AC	0.18	6.00	15.00	26.50	0.8	22.5	22.5	200	23 184 +05*^	500
	0.22	6.00	15.00	26.50	0.8	22.5	22.5	200	23 224 + 05*^	500
	0.27	7.00	16.50	26.50	0.8	22.5	22.5	200	23 274 + 05*^	500
	0.33	7.00	16.50	26.50	0.8	22.5	22.5	200	23 334 + 05*^	500
	0.39	8.50	17.00	26.50	0.8	22.5	22.5	200	23 394 + 05*^	500
	0.41	8.50	17.00	26.50	0.8	22.5	22.5	200	23 414 + 05*^	500
	0.47	8.50	17.00	26.50	0.8	22.5	22.5	200	23 474 + 05*^	500
	0.56	10.00	18.50	26.50	0.8	22.5	22.5	200	23 564 + 05*^	500
	0.68	11.00	20.00	26.50	0.8	22.5	22.5	200	23 684 + 05*^	500



METALLISED POLYPROPYLENE DC LINK CAPACITORS

MAIN APPLICATION: High performance DC filtering applications

MARKING: C-value; tolerance; rated voltage; code for dielectric material; manufacturer symbol

ELECTRODES: Metallised polypropylene film

ENCAPSULATION: Flame retardant plastic case (UL-class 94 V-0) and epoxy resin

CONSTRUCTION: Low inductive wound cell elements of metallised polypropylene film, potted with resin in a flame retardant case UL 94 V-0

TERMINALS: Tinned wire

CAPACITANCE RANGE: 1µF to 100 µF

CAPACITANCE TOLERANCE: ± 5%

RATED (DC) VOLTAGE:

Vr @ 85°C	450V	700V	800V	900V	1100V	1200V
Vop @ 70°C	500V	800V	900V	1100V	1350V	1500V
Vop @100°C	300V	500V	570V	650V	800V	850V

CLIMATIC CATEGORY: 40/85/56

MAXIMUM APPLICATION TEMPERATURE: 85° C

MAXIMUM OPERATING TEMPERATURE (CASE): 100° C

TEST VOLTAGE BETWEEN TERMINALS: 1.5 Vr for 10s

INSULATION RESISTANCE:
RC between leads, after 1 min > 10000 s
For Vr ≤ 500V measuring voltage 100V
For Vr > 500V measuring voltage 500V

SELF INDUCTANCE (Ls): < 1 nH per mm of lead spacing

REFERENCE SPECIFICATIONS: IEC 61071

Specific Reference Data 450V DC
Vr,85° C = 450V DC, Vop,70° C = 500V DC,Vop,100° C = 300V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	9.0	19.0	32.0	27.5	-	0.8	75	75	2.5	-	54.0	-	10	-	85	-	91 105+045*^
2	9.0	19.0	32.0	27.5	-	0.8	75	150	3.0	-	34.5	-	10	-	85	-	91 205+045*^
3	11.0	21.0	32.0	27.5	-	0.8	75	225	4.0	-	23.0	-	10	-	85	-	91 305+045*^
4	11.0	21.0	32.0	27.5	-	0.8	75	300	4.0	-	20.5	-	10	-	85	-	91 405+045*^
5	13.0	23.0	32.0	27.5	-	0.8	75	375	5.0	-	16.5	-	10	-	85	-	91 505+045*^
6	15.0	25.0	32.0	27.5	-	0.8	75	450	6.0	-	13.5	-	10	-	85	-	91 605+045*^
7	15.0	25.0	32.0	27.5	-	0.8	75	525	6.5	-	11.5	-	10	-	85	-	91 705+045*^
8	18.0	28.0	32.0	27.5	-	0.8	75	600	8.5	-	8.5	-	10	-	85	-	91 805+045*^
9	18.0	28.0	32.0	27.5	-	0.8	75	675	8.5	-	9.0	-	10	-	85	-	91 905+045*^
10	18.0	28.0	32.0	27.5	-	0.8	75	750	9.0	-	8.0	-	10	-	85	-	91 106+045*^
12	21.0	31.0	32.0	27.5	-	0.8	75	900	10.0	-	7.0	-	10	-	85	-	91 126+045*^
15	20.0	35.0	32.0	27.5	-	0.8	75	1125	11.5	-	6.0	-	10	-	85	-	91 156+045*^
10	18.5	35.5	43.0	37.5	10.2	1.0	40	400	7.5	8.0	13.5	12.0	18	16	160	140	91 106+045*^
12	18.5	35.5	43.0	37.5	10.2	1.0	40	480	8.0	8.5	11.5	10.0	18	16	160	140	91 126+045*^
15	18.5	35.5	43.0	37.5	10.2	1.0	40	600	9.0	10.0	9.0	8.0	18	16	160	140	91 156+045*^
20	21.5	38.5	43.0	37.5	10.2	1.0	40	800	11.0	12.0	7.0	6.0	18	16	160	140	91 206+045*^
22	21.5	38.5	43.0	37.5	10.2	1.0	40	880	11.0	11.5	7.5	6.5	18	16	160	140	91 226+045*^
25	21.5	38.5	43.0	37.5	10.2	1.0	40	1000	11.5	12.5	6.5	5.5	18	16	160	140	91 256+045*^
30	24.0	44.0	42.0	37.5	10.2	1.0	40	1200	13.5	15.0	5.5	4.5	18	16	160	140	91 306+045*^
35	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	1400	17.0	18.5	4.0	3.5	18	16	160	140	91 356+045*^
40	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	1600	17.0	18.5	4.0	3.5	18	16	160	140	91 406+045*^
40	25.0	45.0	57.5	52.5	10.2	1.2	20	800	13.0	13.5	6.5	6.0	35	30	310	280	91 406+045*^
45	25.0	45.0	57.5	52.5	10.2	1.2	20	900	12.5	13.5	7.0	6.0	35	30	310	280	91 456+045*^
50	30.0	45.0	57.5	52.5	20.3	1.2	20	1000	15.0	15.5	5.5	5.0	35	30	310	280	91 506+045*^
55	30.0	45.0	57.5	52.5	20.3	1.2	20	1100	15.0	15.5	5.5	5.0	35	30	310	280	91 556+045*^
60	30.0	45.0	57.5	52.5	20.3	1.2	20	1200	15.5	16.5	5.0	4.5	35	30	310	280	91 606+045*^
65	35.0	50.0	57.5	52.5	20.3	1.2	20	1300	19.0	20.5	4.0	3.5	35	30	310	280	91 656+045*^
70	35.0	50.0	57.5	52.5	20.3	1.2	20	1400	18.0	19.0	4.5	4.0	35	30	310	280	91 706+045*^
75	35.0	50.0	57.5	52.5	20.3	1.2	20	1500	19.0	20.5	4.0	3.5	35	30	310	280	91 756+045*^
80	35.0	50.0	57.5	52.5	20.3	1.2	20	1600	19.0	20.5	4.0	3.5	35	30	310	280	91 806+045*^
90	45.0	45.0	57.5	52.5	20.3	1.2	20	1800	-	21.5	-	3.0	-	30	-	280	91 906+045*^
95	45.0	45.0	57.5	52.5	20.3	1.2	20	1900	-	21.5	-	3.0	-	30	-	280	91 956+045*^
100	45.0	45.0	57.5	52.5	20.3	1.2	20	2000	-	23.5	-	2.5	-	30	-	280	91 107+045*^

DEKI
Film Capacitor Solutions

Specific Reference Data 700V DC

Vr,85° C = 700V DC, Vop,70° C = 800V DC,Vop,100° C = 500V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	9.0	19.0	32.0	27.5	-	0.8	75	75	2.5	-	54.0	-	8	-	68	-	91 105+070*^
2	9.0	19.0	32.0	27.5	-	0.8	75	150	3.0	-	34.5	-	8	-	68	-	91 205+070*^
3	11.0	21.0	32.0	27.5	-	0.8	75	225	4.0	-	23.0	-	8	-	68	-	91 305+070*^
4	13.0	23.0	32.0	27.5	-	0.8	75	300	5.0	-	17.0	-	8	-	68	-	91 405+070*^
5	15.0	25.0	32.0	27.5	-	0.8	75	375	6.0	-	14.0	-	8	-	68	-	91 505+070*^
6	18.0	28.0	32.0	27.5	-	0.8	75	450	7.5	-	11.5	-	8	-	68	-	91 605+070*^
7	18.0	28.0	32.0	27.5	-	0.8	75	525	8.0	-	10.0	-	8	-	68	-	91 705+070*^
8	18.0	28.0	32.0	27.5	-	0.8	75	600	8.5	-	8.5	-	8	-	68	-	91 805+070*^
9	21.0	31.0	32.0	27.5	-	0.8	75	675	10.0	-	7.5	-	8	-	68	-	91 905+070*^
10	21.0	31.0	32.0	27.5	-	0.8	75	750	10.0	-	7.0	-	8	-	68	-	91 106+070*^
12	20.0	35.0	32.0	27.5	-	0.8	75	900	11.5	-	6.0	-	8	-	68	-	91 126+070*^
10	18.5	35.5	43.0	37.5	10.2	1.0	40	400	7.5	8.0	13.5	12.0	15	13	135	120	91 156+070*^
12	18.5	35.5	43.0	37.5	10.2	1.0	40	480	8.0	8.5	11.5	10.0	15	13	135	120	91 106+070*^
15	18.5	35.5	43.0	37.5	10.2	1.0	40	600	9.0	10.0	9.0	8.0	15	13	135	120	91 126+070*^
20	21.5	38.5	43.0	37.5	10.2	1.0	40	800	11.0	12.0	7.0	6.0	15	13	135	120	91 156+070*^
22	24.0	44.0	42.0	37.5	10.2	1.0	40	880	13.0	13.5	6.0	5.5	15	13	135	120	91 206+070*^
25	24.0	44.0	42.0	37.5	10.2	1.0	40	1000	13.5	14.5	5.5	5.0	15	13	135	120	91 256+070*^
30	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	1200	16.0	17.0	4.5	4.0	15	13	135	120	91 306+070*^
35	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	1400	17.0	18.5	4.0	3.5	15	13	135	120	91 356+070*^
30	25.0	45.0	57.5	52.5	10.2	1.2	20	600	11.0	12.0	9.0	8.0	30	25	270	240	91 306+070*^
35	25.0	45.0	57.5	52.5	10.2	1.2	20	700	12.0	12.5	7.5	7.0	30	25	270	240	91 356+070*^
40	25.0	45.0	57.5	52.5	10.2	1.2	20	800	13.0	13.5	6.5	6.0	30	25	270	240	91 406+070*^
45	30.0	45.0	57.5	52.5	20.3	1.2	20	900	14.5	15.0	6.0	5.5	30	25	270	240	91 456+070*^
50	30.0	45.0	57.5	52.5	20.3	1.2	20	1000	15.0	15.5	5.5	5.0	30	25	270	240	91 506+070*^
55	35.0	50.0	57.5	52.5	20.3	1.2	20	1100	17.0	18.0	5.0	4.5	30	25	270	240	91 556+070*^
60	35.0	50.0	57.5	52.5	20.3	1.2	20	1200	18.0	19.0	4.5	4.0	30	25	270	240	91 606+070*^
65	35.0	50.0	57.5	52.5	20.3	1.2	20	1300	19.0	20.5	4.0	3.5	30	25	270	240	91 656+070*^
70	45.0	45.0	57.5	52.5	20.3	1.2	20	1400	-	20.0	-	3.5	-	25	-	240	91 706+070*^
75	45.0	45.0	57.5	52.5	20.3	1.2	20	1500	-	21.5	-	3.0	-	25	-	240	91 756+070*^
80	45.0	45.0	57.5	52.5	20.3	1.2	20	1600	-	21.5	-	3.0	-	25	-	240	91 806+070*^

Specific Reference Data 800V DC

Vr,85° C = 800V DC, Vop,70° C = 900V DC,Vop,100° C = 570V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	9.0	19.0	32.0	27.5	-	0.8	75	75	2.0	-	62.5	-	7	-	60	-	91 105+080*^
2	11.0	21.0	32.0	27.5	-	0.8	75	150	3.5	-	31.0	-	7	-	60	-	91 205+080*^
3	13.0	23.0	32.0	27.5	-	0.8	75	225	4.5	-	21.0	-	7	-	60	-	91 305+080*^
4	15.0	25.0	32.0	27.5	-	0.8	75	300	5.5	-	15.5	-	7	-	60	-	91 405+080*^
5	18.0	28.0	32.0	27.5	-	0.8	75	375	7.0	-	12.5	-	7	-	60	-	91 505+080*^
6	18.0	28.0	32.0	27.5	-	0.8	75	450	7.5	-	10.5	-	7	-	60	-	91 605+080*^
7	21.0	31.0	32.0	27.5	-	0.8	75	525	9.0	-	9.0	-	7	-	60	-	91 705+080*^
8	21.0	31.0	32.0	27.5	-	0.8	75	600	9.5	-	8.0	-	7	-	60	-	91 805+080*^
9	20.0	35.0	32.0	27.5	-	0.8	75	675	10.0	-	8.0	-	7	-	60	-	91 905+080*^
10	18.5	35.5	43.0	37.5	10.2	1.0	40	400	8.0	8.5	12.5	11.0	14	12	122	110	91 106+080*^
12	18.5	35.5	43.0	37.5	10.2	1.0	40	480	8.5	9.0	10.5	9.0	14	12	122	110	91 126+080*^
15	21.5	38.5	43.0	37.5	10.2	1.0	40	600	10.0	11.0	8.5	7.5	14	12	122	110	91 156+080*^
20	24.0	44.0	42.0	37.5	10.2	1.0	40	800	13.0	13.5	6.0	5.5	14	12	122	110	91 206+080*^
22	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	880	14.5	15.5	5.5	5.0	14	12	122	110	91 226+080*^
25	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	40	1000	15.5	16.0	5.0	4.5	14	12	122	110	91 256+080*^
30	25.0	45.0	57.5	52.5	10.2	1.2	10	300	12.0	12.0	8.0	7.5	25	22	240	215	91 306+080*^
35	30.0	45.0	57.5	52.5	20.3	1.2	10	350	13.0	14.5	7.0	6.0	25	22	240	215	91 356+080*^
40	30.0	45.0	57.5	52.5	20.3	1.2	10	400	14.5	15.0	6.0	5.5	25	22	240	215	91 406+080*^
45	35.0	50.0	57.5	52.5	20.3	1.2	10	450	16.0	17.0	5.5	5.0	25	22	240	215	91 456+080*^
50	35.0	50.0	57.5	52.5	20.3	1.2	10	500	17.0	18.0	5.0	4.5	25	22	240	215	91 506+080*^
55	45.0	45.0	57.5	52.5	20.3	1.2	10	550	-	18.5	-	4.0	-	22	-	215	91 556+080*^
60	45.0	45.0	57.5	52.5	20.3	1.2	10	600	-	20.0	-	3.5	-	22	-	215	91 606+080*^

Specific Reference Data 900V DC

Vr,85° C = 900V DC, Vop,70° C = 1100V DC,Vop,100° C = 650V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	9.0	19.0	32	27.5	-	0.8	40	40	2.0	-	63	-	7	-	50	-	91 105+090*^
2	13.0	23.0	32	27.5	-	0.8	80	160	3.5	-	32	-	7	-	50	-	91 205+090*^
3	15.0	25.0	32	27.5	-	0.8	80	240	5.0	-	21	-	7	-	50	-	91 305+090*^
4	18.0	28.0	32	27.5	-	0.8	80	320	6.0	-	16	-	7	-	50	-	91 405+090*^
5	21.0	31.0	32	27.5	-	0.8	80	400	7.5	-	13	-	7	-	50	-	91 505+090*^
6	21.0	31.0	32	27.5	-	0.8	80	480	8.5	-	10	-	7	-	50	-	91 605+090*^
7	20.0	35.0	32	27.5	-	0.8	80	560	9.0	-	9	-	7	-	50	-	91 705+090*^
5	18.5	35.5	43	37.5	10.2	1.0	20	100	6.0	6.5	21	19	12	10	100	90	91 505+090*^
6	18.5	35.5	43	37.5	10.2	1.0	40	240	6.5	7.0	18	16	12	10	100	90	91 605+090*^
7	18.5	35.5	43	37.5	10.2	1.0	40	280	6.5	7.0	18	16	12	10	100	90	91 705+090*^
8	18.5	35.5	43	37.5	10.2	1.0	40	320	7.0	7.5	16	14	12	10	100	90	91 805+090*^
9	18.5	35.5	43	37.5	10.2	1.0	40	360	7.5	8.0	14	12	12	10	100	90	91 905+090*^
10	21.5	38.5	43	37.5	10.2	1.0	40	400	8.5	9.0	12	11	12	10	100	90	91 106+090*^
12	21.5	38.5	43	37.5	10.2	1.0	40	480	9.5	10.0	10	9	12	10	100	90	91 126+090*^
15	24.0	44.0	42	37.5	10.2	1.0	40	600	11.0	12.0	8	7	12	10	100	90	91 156+090*^
16	24.0	44.0	42	37.5	10.2	1.0	40	640	11.0	12.0	8	7	12	10	100	90	91 166+090*^
20	30.0	45.0	42	37.5	10.2/ 20.3	1.0	40	800	14.0	15.5	6	5	12	10	100	90	91 206+090*^
15	25.0	45.0	57.5	52.5	10.2	1.2	20	300	9.0	9.5	14	12	25	20	200	185	91 156+090*^
20	25.0	45.0	57.5	52.5	10.2	1.2	20	400	9.5	10.0	12	11	25	20	200	185	91 206+090*^
22	25.0	45.0	57.5	52.5	10.2	1.2	20	440	10.0	10.5	11	10	25	20	200	185	91 226+090*^
25	30.0	45.0	57.5	52.5	20.3	1.2	20	500	11.0	11.5	10	9	25	20	200	185	91 256+090*^
30	30.0	45.0	57.5	52.5	20.3	1.2	20	600	12.5	13.0	8	7	25	20	200	185	91 306+090*^
35	35.0	50.0	57.5	52.5	20.3	1.2	20	700	14.5	15.5	7	6	25	20	200	185	91 356+090*^
40	35.0	50.0	57.5	52.5	20.3	1.2	20	800	15.5	17.0	6	5	25	20	200	185	91 406+090*^
45	45.0	45.0	57.5	52.5	20.3	1.2	20	900	-	16.5	-	5	-	20	-	185	91 456+090*^
50	45.0	45.0	57.5	52.5	20.3	1.2	20	1000	-	18.5	-	4	-	20	-	185	91 506+090*^

Specific Reference Data 1100V DC

Vr,85° C = 1100V DC, Vop,70° C = 1350V DC,Vop,100° C = 800V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	11.0	21.0	32.0	27.5	-	0.8	95	95	3.0	-	45.5	-	6	-	45	-	91 105+110*^
2	15.0	25.0	32.0	27.5	-	0.8	95	190	4.5	-	23.0	-	6	-	45	-	91 205+110*^
3	18.0	28.0	32.0	27.5	-	0.8	95	285	6.0	-	15.5	-	6	-	45	-	91 305+110*^
4	21.0	31.0	32.0	27.5	-	0.8	95	380	8.0	-	11.5	-	6	-	45	-	91 405+110*^
5	20.0	35.0	32.0	27.5	-	0.8	95	475	9.0	-	9.5	-	6	-	45	-	91 505+110*^
5	18.5	35.5	43.0	37.5	10.2	1.0	45	225	6.5	7.0	18.0	16.0	10	8.5	90	80	91 505+110*^
6	18.5	35.5	43.0	37.5	10.2	1.0	45	270	7.0	7.5	15.0	13.5	10	8.5	90	80	91 605+110*^
7	21.5	38.5	43.0	37.5	10.2	1.0	45	315	8.0	8.5	13.0	11.5	10	8.5	90	80	91 705+110*^
8	21.5	38.5	43.0	37.5	10.2	1.0	45	360	9.0	9.5	11.0	10.0	10	8.5	90	80	91 805+110*^
9	24.0	44.0	42.0	37.5	10.2	1.0	45	405	10.0	10.5	10.0	9.0	10	8.5	90	80	91 906+110*^
10	24.0	44.0	42.0	37.5	10.2	1.0	45	450	10.5	11.0	9.0	8.0	10	8.5	90	80	91 106+110*^
12	30.0	45.0	42.0	37.5	10.2/ 20.3	1.0	45	540	12.5	13.5	7.5	6.5	10	8.5	90	80	91 126+110*^
10	25.0	45.0	57.5	52.5	10.2	1.2	23	230	8.0	8.5	18.0	16.0	20	17.0	175	155	91 106+110*^
12	25.0	45.0	57.5	52.5	10.2	1.2	23	276	8.5	9.0	15.0	13.0	20	17.0	175	155	91 126+110*^
15	25.0	45.0	57.5	52.5	10.2	1.2	23	345	9.5	10.5	12.0	10.5	20	17.0	175	155	91 156+110*^
20	30.0	45.0	57.5	52.5	20.3	1.2	23	460	11.5	12.5	9.0	8.0	20	17.0	175	155	91 206+110*^
22	35.0	50.0	57.5	52.5	20.3	1.2	23	506	13.5	14.5	8.0	7.0	20	17.0	175	155	91 226+110*^
25	35.0	50.0	57.5	52.5	20.3	1.2	23	575	14.5	15.0	7.0	6.5	20	17.0	175	155	91 256+110*^
30	45.0	45.0	57.5	52.5	20.3	1.2	23	690	-	16.5	-	5.0	-	17.0	-	155	91 306+110*^

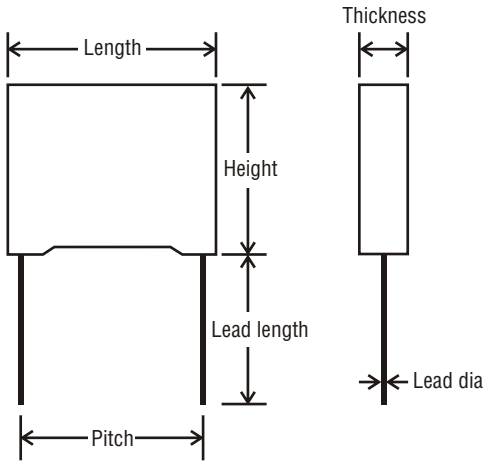
DEKI Film Capacitor Solutions

Specific Reference Data 1200V DC

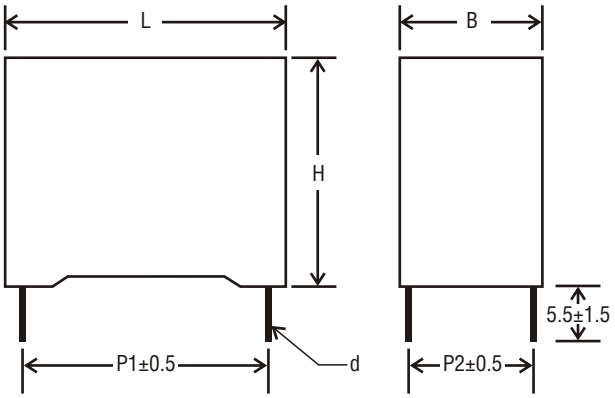
Vr,85° C = 1200V DC, Vop,70° C = 1500V DC,Vop,100° C = 850V DC

CAP	DIMENSIONS			P1	P2	Ødt	dv/dt	Ipeak	IRMS(A), max@85°C, 10kHz		ESRtyp (mΩ), @ 10kHz		tan δ max@1 kHz < (10^{-4})		tan δ max@10 kHz < (10^{-4})		DEKI PART NO
µF	W	H	L	(mm)	(mm)	(mm)	V/µs	(A)	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	2 pins	4 pins	
1	11.0	21.0	32.0	27.5	-	0.8	100	100	3.0	-	43.0	-	6	-	40	-	91 105+120*^
2	15.0	25.0	32.0	27.5	-	0.8	100	200	5.0	-	21.5	-	6	-	40	-	91 205+120*^
3	18.0	28.0	32.0	27.5	-	0.8	100	300	6.5	-	14.5	-	6	-	40	-	91 305+120*^
4	21.0	31.0	32.0	27.5	-	0.8	100	400	8.0	-	11.0	-	6	-	40	-	91 405+120*^
5	18.5	35.5	43.0	37.5	10.2	1	48	240	6.5	7.0	17.0	15.0	10	8.5	80	70	91 505+120*^
6	18.5	35.5	43.0	37.5	10.2	1	48	288	7.5	8.0	14.0	12.5	10	8.5	80	70	91 605+120*^
7	21.5	38.5	43.0	37.5	10.2	1	48	336	8.5	9.0	12.0	11.0	10	8.5	80	70	91 705+120*^
8	21.5	38.5	43.0	37.5	10.2	1	48	384	9.0	9.5	10.5	9.5	10	8.5	80	70	91 805+120*^
9	24.0	44.0	42.0	37.5	10.2	1	48	432	10.5	11.0	9.5	8.5	10	8.5	80	70	91 905+120*^
10	24.0	44.0	42.0	37.5	10.2	1	48	480	11.0	11.5	8.5	7.5	10	8.5	80	70	91 106+120*^
12	30.0	45.0	42.0	37.5	10.2/ 20.3	1	48	576	13.0	13.5	7.0	6.5	10	8.5	80	70	91 126+120*^
10	25.0	45.0	57.5	52.5	10.2	1.2	24	240	8.0	8.5	17.0	15.0	18	16.0	165	150	91 106+120*^
12	25.0	45.0	57.5	52.5	10.2	1.2	24	288	9.0	9.5	14.0	12.5	18	16.0	165	150	91 126+120*^
15	25.0	45.0	57.5	52.5	10.2	1.2	24	360	10.0	10.5	11.0	10.0	18	16.0	165	150	91 156+120*^
20	35.0	50.0	57.5	52.5	20.3	1.2	24	480	13.0	14.0	8.5	7.5	18	16.0	165	150	91 206+120*^
22	35.0	50.0	57.5	52.5	20.3	1.2	24	528	14.0	14.5	7.5	7.0	18	16.0	165	150	91 226+120*^
25	35.0	50.0	57.5	52.5	20.3	1.2	24	600	15.0	15.5	6.5	6.0	18	16.0	165	150	91 256+120*^
30	45.0	45.0	57.5	52.5	20.3	1.2	24	720	-	16.5	-	5.0	-	16.0	-	150	91 306+120*^

2 Terminals



4 Terminals



AQL AND INSPECTION LEVEL

1. Inspection level and AQLs are selected from ISO-2859 / IS-2500 or IEC-410. Sampling plan is single sampling for normal inspection.
2. Symbols used: IL = inspection level (ISO-2859 / IS-2500 / IEC-410)
AQL = acceptable quality level

NO	ITEM		PERFORMANCE REQUIREMENTS	TEST METHOD	I.L.	A.Q.L.
1	VISUAL INSPECTION Marking	Rated capacitance Rated voltage Tolerance Trade mark	Marking should be legible	Visual inspection	General inspection level II	1.0 %
	Mechanical Failure	Lead wire broken Insufficient coating	There shall be no mechanical failure	-do-		
2	DIMENSION	Should confirm to the specification chart	As specified in the data sheet	Gauging	Special inspection level S-1	2.5%
3	ELECTRICAL PROPERTIES Voltage Proof	Between termination As per relevant specification	No break down or flash over of application:	Test voltage and duration of level I	General inspection	0.1%
	Capacitance	Within specified tolerance Tangent of loss angle specifications	Measuring frequency according to IEC spec. As per Measuring frequency relevant according to IEC spec.			
	Insulation Resistance	As per relevant specifications	As per test method in the specifications			
4	SOLDERABILITY		Good shine, free flowing of solder with wetting of the terminations	Without aging Dip test as per IS - 9000 Non-activated Colophony Flux		2.5%

DEKI
Film Capacitor Solutions

PACKING STANDARDS

Bulk packing

Capacitors, packed in 4 inner polybags, are sealed in identified outer polybags and despatched in cartons.

Each box/inner polybag bears an identification slip carrying the lot number. This lot number should be referred to in all feedback / correspondence.

Note: For CDI, Film Foil Non-Inductive capacitors, and other capacitors not included here, please ask for packing standard.

Enquiry information

When making an enquiry, please specify:

1. Working voltage
2. Capacitance value and tolerance
3. Finished product: Colour TV, audio, industrial equipment, electronic ballast, etc
4. Application or circuit diagram, noise suppression, resonance, etc.
5. Condition of operation: Pulse, frequencies, waveform, current
6. Operating temperature
7. Dimensions and type of capacitor
8. Safety: Influence on other components when the capacitor gets short-circuited or opened. Influence on the capacitor when other components or the circuit works irregularly.
9. Current source and specification reference
10. Approximate monthly requirement
11. Any other relevant information

Cautions

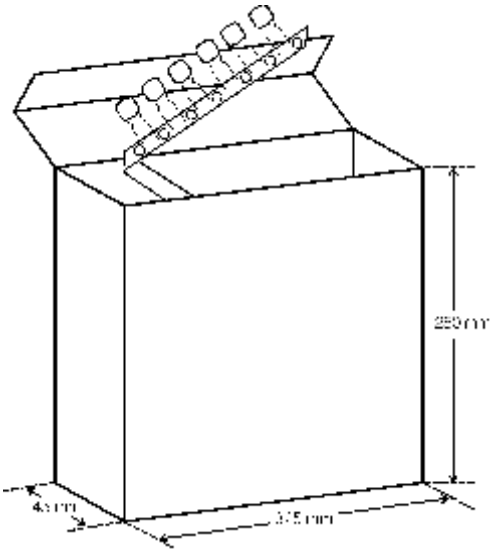
1. Change of capacitance value in the course of time.

The capacitor changes in its characteristics depending on ambient temperature and environmental conditions. Details on the permissible / expected change w.r.t. time can be requested from the Technical Cell.

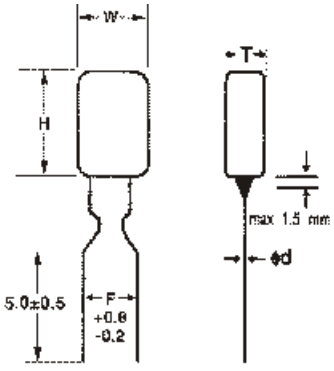
2. Hum (Buzz). Hum produced by capacitors may be due to mechanical vibration of the film caused by the Coulomb force existing between electrodes of opposite polarity. A louder hum is produced when applied voltage waveform has distortion or has a higher frequency component. Hum, though, does not spoil the characteristics of the capacitor.

Handling cautions

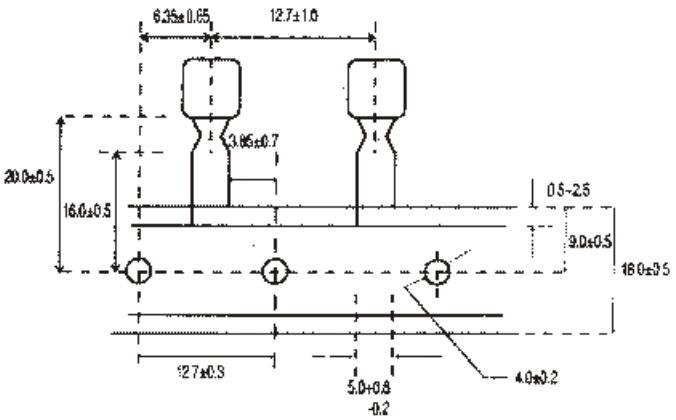
Sudden charging or discharging may cause deterioration of the capacitor such as shorting and opening due to charging or discharging current. When charging or discharging pass through a resistance of 20 to 1000 W / V or more. Be careful not to apply excessive force to the lead wire root area which may cause crack or clearance in the coating resin near the root area.



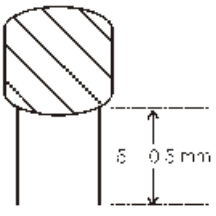
Formed & cut



Formed & taped

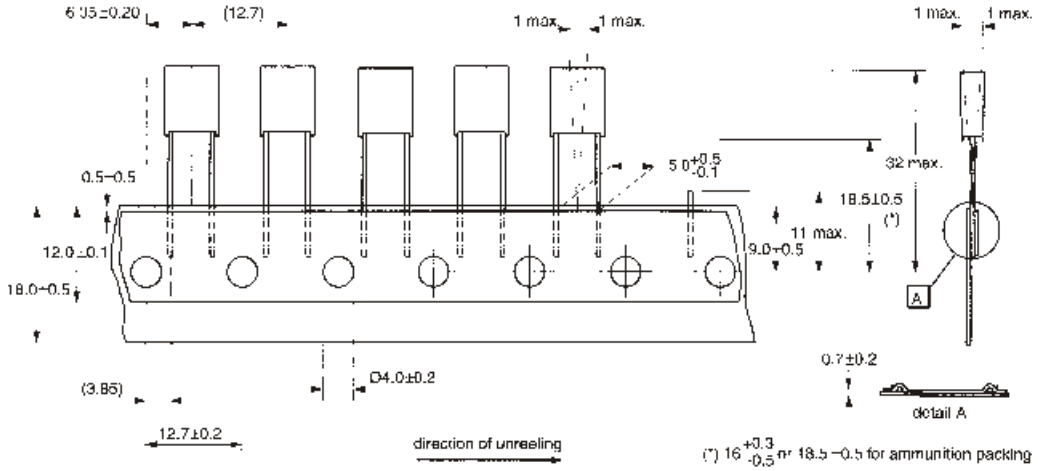


Straight lead & cut

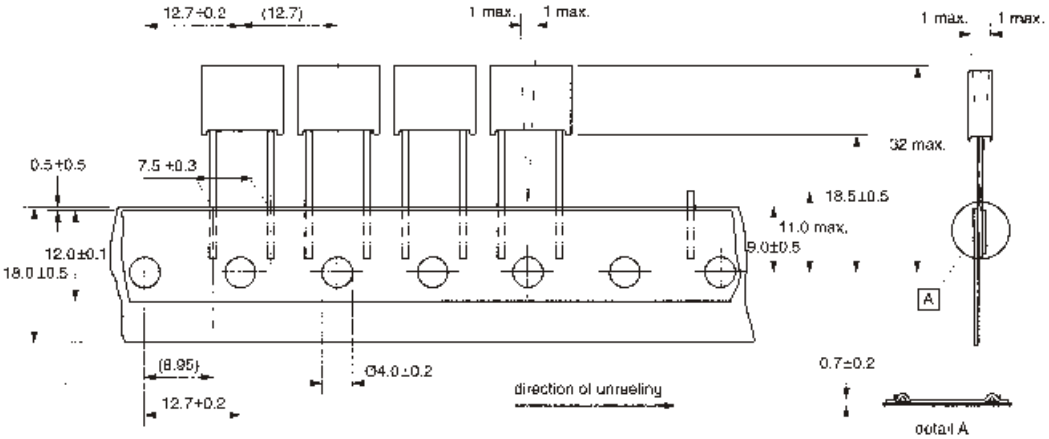


PACKING STYLES

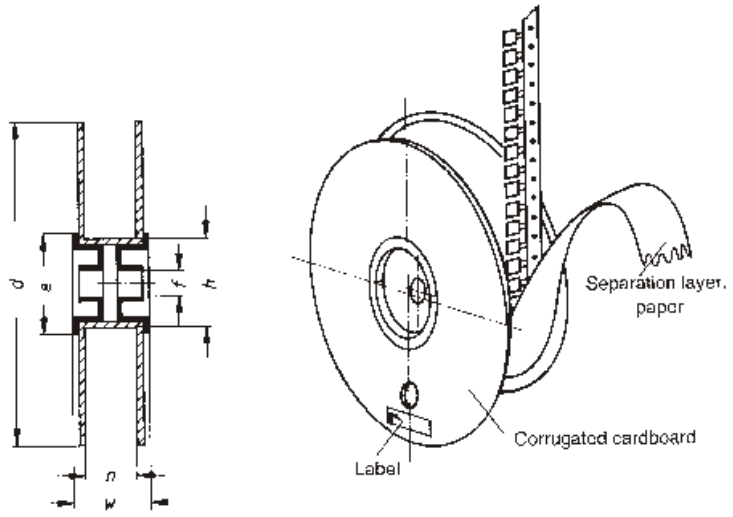
Ammo Packing: 5 mm Pitch



Ammo Packing: 7.5 mm Pitch



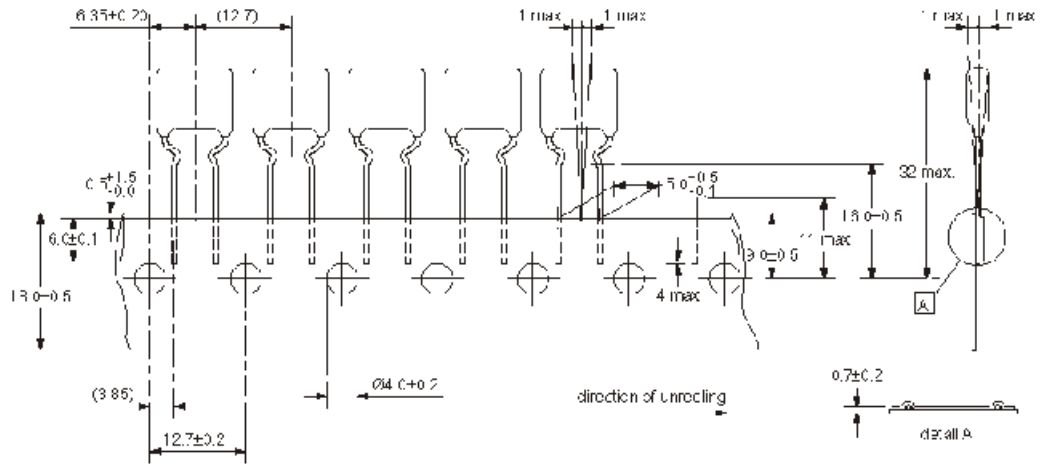
Reel Packing



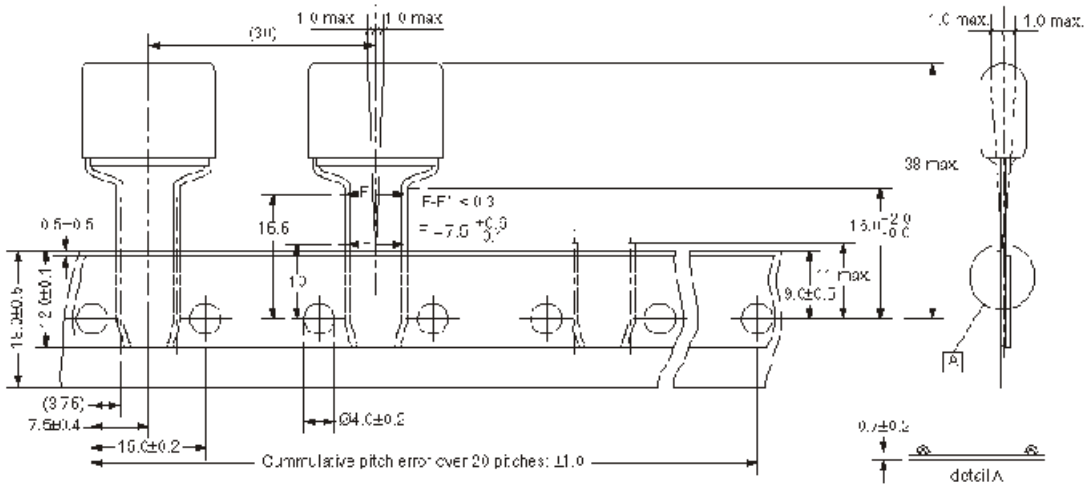
Dimensions (mm)	n	w	d	e	f	h
Lead spacing ≤ 7.5	42+1	52 max	dia 360-1	dia 90	dia 30.5∓0.2	dia 82+1
Lead spacing ≥ 10	54+1	70 max	dia 500-1	dia 130	dia 30.5∓0.2	dia 126+1

PACKING STYLES

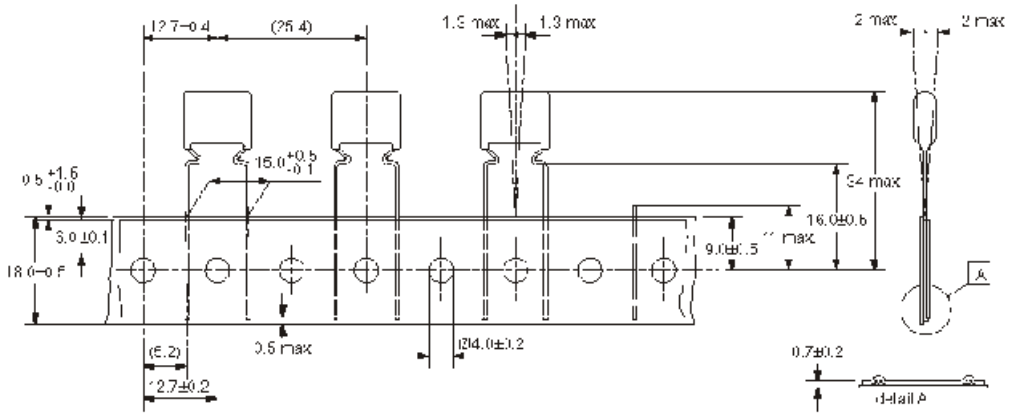
Ammo Packing: 7.5-5.0 mm Pitch



Ammo Packing: 15.0-7.5 mm Pitch

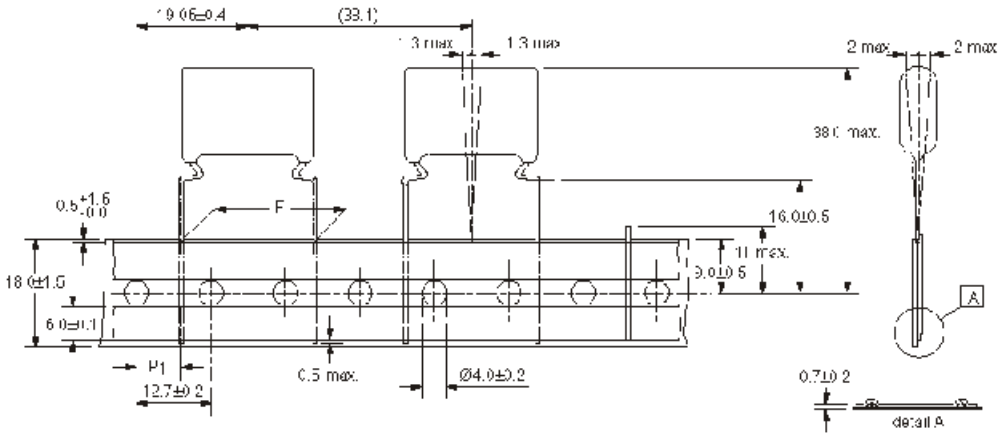


Ammo Packing: 15 mm Pitch

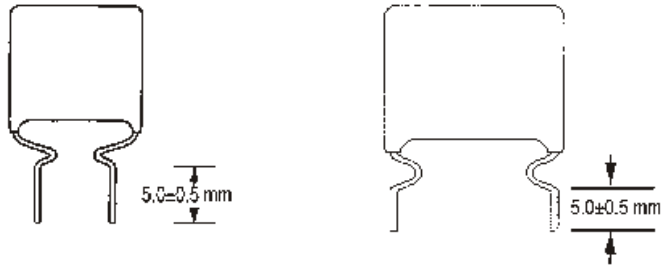


PACKING STYLES

Ammo Packing: 22.5 mm Pitch



Formed and Cut
Film / Foil Non-Inductive and Metallised Film Capacitors



DEKI
Film Capacitor Solutions

ORDERING INFORMATION

Ten digit alphanumeric code ordering system: 01 234 J 2A 1 A

1st group

Two digits (01) represent capacitor type

Description	**Series code**		
	Box	**Dip**	**Other**
Plain polyester (inductive)	—	01	—
Metallised polyester (general purpose)	06	02	—
Plain polypropylene (inductive)	—	03	—
AC & Pulse (MPP series)	27	04	—
Fan regulator (MPP series)	—	04	—
AC & Pulse (PP/MPP series)	29	05	—
IS (X2 MPP box)	07	39	—
IS (X2 UL approved)	20	—	—
CDI-MPET	—	08	—
CDI-MPP	—	09	—
Fluorescent lamp starter (Brown epoxy coated)	—	10	—
Fluorescent lamp starter (Clear epoxy coated)	—	11	—
MPET (Round axial tape wrapped)	—	—	12
MPET (7.5mm pitch)	15	13	—
MPET (5mm pitch)	16	14	—
MPP (AC application)	22	17	—
AC & Pulse (MPP/ MPP series)	30	18	—
PP (Film / foil non-inductive)	21	32	—
PET (Film / foil non-inductive)	31	25	—
MPP (Cap. bank)	26	—	—
MPET (Cap. bank)	28	—	—
IS Y2 capacitor (MPP series)	33	—	—
MPP (5mm pitch)	35	34	—
MPET (flat axial tape wrapped)	—	—	36
PP + PET mixed dielectric (PEP)	—	38	—
MPP round axial tape wrapped	—	—	40
PET straight lead taped (5.0 mm pitch)	—	41	—
PET straight lead taped (7.5 mm pitch)	—	42	—
PP straight lead taped (5.0 mm pitch)	—	43	—
MPET fan regulator (switch type)	—	46	—
PP (non-inductive flat axial series)	—	—	47
MPP-DC (flat axial series)	—	—	50
PET (inductive low profile)	—	51	—
MPP-AC (flat axial series_	—	—	52
Mixed dielectric extra strength (PES)	—	53	—
Plain polyester extra strength (PES)	—	54	—
AC & Pulse (MPP / MPP AC series)	67	62	—
AC & Pulse (MMPP series)	66	61	—
PP/MPP	68	63	—
MPP/MPP (with resistor)	83	81	—
MPP/MPP-AC (for electronics ballast)	59	58	—

...continued

Description	Series code		
	Box	Dip	Other
Fan regulator-Economic type	56	57	—
Fan regulator-Ultima MPET	87	86	—
Fan regulator-Ultima MPET	75	76	—
Fan regulator-Ultima MPET	71	72	—
Fan regulator-Ultima MPP	73	74	—
Fan regulator-Ultima MPP	45	44	—
Fan regulator-MPP	49	48	—
Fan regulator-Ultima MPP	85	84	—
Fan regulator-MPP	65	64	—
DPSH (PP inductive-self healing)	—	70	—
DTSH (PET inductive-self healing)	—	80	—
PET (non-inductive)	—	—	90
Fan regulator-Optima	79	69	—
Metallised polyester-AC application	23	24	—
MPP-DC Link	91	—	—

2nd group
Three-digit (234) indicate rated capacitance in pico farad (First two digits indicate value & third digit indicates number of zeroes to be suffixed to first two digits).
For example:
221 = 22 × 10^1 = 220 pf = 0.00022 µf
104 = 10 × 10^4 = 100000 pf = 0.1 µf
225 = 22 × 10^5 = 2200000 pf = 2.2 µf

3rd group
One letter (J) indicates capacitance tolerance

F = ±1%	K = ±10.0%
G = ±2%	M = ±20.0%
H = ±2.5%	N = +40%
I = ±3.5%	
J = ±5.0%	

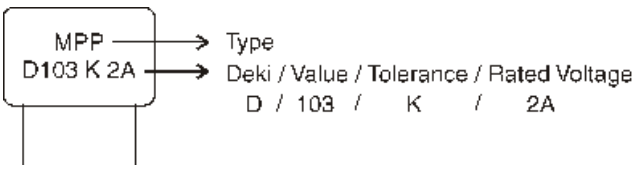
4th group
One digit and one letter (2A) or two digits indicate rated voltage

For DC Capacitors (One digit and one letter)		For AC Capacitors (Two digits)	
1H	: 50V	01	: 190V AC
1J	: 63V	02	: 250V AC
2A	: 100V	03	: 275V AC
2D	: 200V	04	: 300V AC
2E	: 250V	05	: 310V AC
2G	: 400V	06	: 440V AC
2J	: 630V	07	: 500V AC
3A	: 1000V	08	: 600V AC
3B	: 1250V	09	: 700V AC
3C	: 1600V		
3D	: 2000V		
3E	: 2500V		

5th group
One digit (1) indicates packing type.
1: Bulk packing (original pitch)
2: Bulk Packing (after forming & cutting)
3: Ammo packing (after forming & taping)
4: Bulk Packing (after forming in original pitch without cut)
5: Bulk packing (after formed & without cut)
6: Ammo Packing (Straight lead)
7: Bulk Packing (Straight lead cut)
8: Reel Packing (Straight lead)

6th group
One letter (A) indicates drawing reference
A: As per catalogue.
B-Z: Special drawings not covered in "A" (decided by Deki)

MARKING STYLE / SEQUENCE (For DC Capacitors)



For AC Capacitors, rated voltage is indicated directly, replacing the last two alphanumerics.

The Deki Prayer

The day at Deki starts with a prayer. A prayer for mental strength, a prayer for a strong work ethic. The prayer, in Hindi, asks for Deki to remain ahead in quality and customer satisfaction. It seeks unending progress and learning from mistakes. The prayer wishes for self-confidence even in the face of all adversities together with good sense to spread happiness to everybody. The prayer goes on to hope for the Deki Team to have the ability to maintain the environmental balance. It ends with the invocation for each individual at Deki to become the channel to achieve all that is asked for in the prayer.

ऐसी शक्ति हमें देना दाता, मन का विशवास कमज़ोर हो ना।
हम करें कर्म अपना लगन से, भूल कर भी कोई भूल हो ना॥

कर्म भूमि है डेकी हमारी, हो प्रबलता सभी के दिलों में।
कर्म की भावना होवे ऐसी, विश्व में नाम होवे हमारा॥

गुणवत्ता में रहें सबसे आगे, होवें संतुष्ट ग्राहक हमारे।
प्रगति हो निरंतर हमारी, सीख लें अपनी गलतियों से॥

सामने कितने संकट खड़े हों, ना कमी हो हमें आत्मबल की।
देना सद्बुद्धि दाता सभी को, खुशियाँ फैलायें सबके घरों में॥

रखें पर्यावरण संतुलन में, ऐसी सामर्थ्य होवे हमारी।
स्वयं साधन बनें हम इसी के, लक्ष्य है हे विधाता हमारा॥

DEKI
Film Capacitor Solutions

Deki's Mission

To consistently provide customers with reliable, good quality capacitors on time at internationally competitive prices.

Quality Policy

We, at Deki, are commited to the manufacture and sale of film capacitors complying with customer requirements and to continually improve the product, process and practices.

Environmental Policy

We at Deki Electronics Limited, Noida, manufacturers of Plastic Film Capacitors in India are committed to prevent pollution and to continually improve our environmental performance by:

Conserving resources such as power, diesel, chemicals & compressed air.

Minimising emission of volatile compounds such as Xylene & Styrene.

Maximising reuse and recycling of waste packaging and plastic material.

Proper handling and disposal of inevitable wastes such as epoxy mixture, epoxy powder, used oils, cores, plastic film, aluminum foil, TPCS and TCA wire, spray wire and e-waste.

Complying with applicable environmental legislation and customer-specific list of banned substances.

Building awareness of employees on environmental issues.

This policy will be made available to the public.

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