

# TAJ Series



## Low Profile



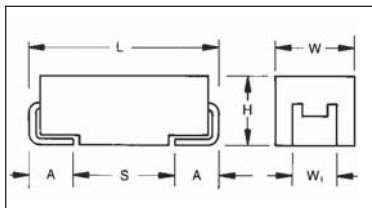
- General purpose SMT chip tantalum series
- CV range: 0.10-1000µF / 2.5-50V
- 10 case sizes in low profile option available



### CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H Max.	W <sub>1</sub> ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
F	2312	6032-20	6.00 (0.236)	3.20 (0.126)	2.00 (0.079)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
H	1210	3528-15	3.50 (0.138)	2.80 (0.110)	1.50 (0.059)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
K	1206	3216-10	3.20 (0.126)	1.60 (0.063)	1.00 (0.039)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
P	0805	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059)	1.00±0.10 (0.039±0.004)	0.50 (0.020)	0.85 (0.033)
R	0805	2012-12	2.05 (0.081)	1.30 (0.051)	1.20 (0.047)	1.00±0.10 (0.039±0.004)	0.50 (0.020)	0.85 (0.033)
S	1206	3216-12	3.20 (0.126)	1.60 (0.063)	1.20 (0.047)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
T	1210	3528-12	3.50 (0.138)	2.80 (0.110)	1.20 (0.047)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
W	2312	6032-15	6.00 (0.236)	3.20 (0.126)	1.50 (0.059)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
X	2917	7343-15	7.30 (0.287)	4.30 (0.169)	1.50 (0.059)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
Y	2917	7343-20	7.30 (0.287)	4.30 (0.169)	2.00 (0.079)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

W<sub>1</sub> dimension applies to the termination width for A dimensional area only.



For part marking see page 169

### HOW TO ORDER

<b>TAJ</b>	<b>C</b>	<b>107</b>	<b>M</b>	<b>010</b>	<b>R</b>	<b>NJ</b>	<b>-</b>
<b>Type</b>	<b>Case Size</b> See table above	<b>Capacitance Code</b> pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	<b>Tolerance</b> K=±10% M=±20%	<b>Rated DC Voltage</b> 002=2.5Vdc 004=4Vdc 006=6.3Vdc 010=10Vdc 016=16Vdc 020=20Vdc 025=25Vdc 035=35Vdc 050=50Vdc	<b>Packaging</b> R = Pure Tin 7" Reel S = Pure Tin 13" Reel A = Gold Plating 7" Reel B = Gold Plating 13" Reel	<b>Specification Suffix</b> NJ = Standard Suffix	<b>Additional characters may be added for special requirements</b> V = Dry pack Option (selected codes only)

### TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C									
Capacitance Range:	0.10 µF to 1000 µF									
Capacitance Tolerance:	±10%; ±20%									
Rated Voltage (V <sub>R</sub> )	≤ +85°C:	2.5	4	6.3	10	16	20	25	35	50
Category Voltage (V <sub>C</sub> )	≤ +125°C:	1.7	2.7	4	7	10	13	17	23	33
Surge Voltage (V <sub>S</sub> )	≤ +85°C:	3.3	5.2	8	13	20	26	32	46	65
Surge Voltage (V <sub>S</sub> )	≤ +125°C:	2.2	3.4	5	8	13	16	20	28	40
Temperature Range:	-55°C to +125°C									
Reliability:	1% per 1000 hours at 85°C, V <sub>R</sub> with 0.1Ω/V series impedance, 60% confidence level									
Termination Finished:	Sn Plating (standard), Gold and SnPb Plating upon request									
	For AEC-Q200 availability, please contact AVX									



### CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated voltage DC ( $V_R$ ) to 85°C								
$\mu\text{F}$	Code	2.5V (e)	4V (G)	6.3V (J)	10V (A)	16V (C)	20V (D)	25V (E)	35V (V)	50V (T)
0.10	104						R/S		R/S	S
0.15	154						R/S	R	R/S	S
0.22	224						R/S	R	R/S	P/R/S
0.33	334						R/S	R	R/S	P/R <sup>(M)</sup> /S/T
0.47	474						R/S	R/S	R/S/T	S/T
0.68	684					R/S	R/S/T	R/S	P/S/T	
1.0	105				R/S	R/S/T	R/S/T	P/R/S	P/S/T	W
1.5	155			R/S	R/S	R/S	P/R/S/T	P/S/T	T	W
2.2	225		R/S	R/S	R/S	R/S/T	P/R/S/T	T	T	
3.3	335		R/S	R/S	R/S/T	R/S/T	T	T/W	W	Y
4.7	475	R	R/S	R/S/T	R/S/T	K/P/S/T	T	T/W	W	Y
6.8	685	R	R/S/T	R/S/T	P/R/S/T	S/T	T	W	Y	Y
10	106	R/S	R/S/T	P/R/S/T	K/P/R <sup>(M)</sup> /S/T	T/W	W	W	X/Y	
15	156	R	R/S/T	K/P/R/S/T	S/T/W	T <sup>(M)</sup> /W	W	Y	Y	
22	226	P/R	K/P/R/S/T	K/P <sup>(M)</sup> /S/T/W	T/W	W	W/Y	Y	Y	
33	336	K/P/S	K/P <sup>(M)</sup> /S/T/W	T/W	W	W/Y	X/Y	Y		
47	476	P <sup>(M)</sup> /S	T/W	T/W	H/W/Y	W/X/Y	X/Y	Y		
68	686	T	T/W	W	W/Y	F/X/Y	Y			
100	107	T/W	T <sup>(M)</sup> /W	W/Y	W/X/Y	F <sup>(M)</sup> /Y				
150	157	T <sup>(M)</sup> /W	W/Y	W/X/Y	F/X <sup>(M)</sup> /Y	Y <sup>(M)</sup>				
220	227	W/Y	W/X/Y	F/X/Y	Y					
330	337	W <sup>(M)</sup> /Y	F/X/Y	Y						
470	477	F/Y	Y	Y						
680	687	Y	Y <sup>(M)</sup>							
1000	108	Y <sup>(M)</sup>								

Released codes <sup>(M tolerance only)</sup>

Engineering samples - please contact manufacturer

\*Codes under development - subject to change

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.





### RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
TAJP684*035#NJ	P	0.68	35	0.5	4	13	1
TAJS684*035#NJ	S	0.68	35	0.5	4	8	1
TAJT684*035#NJ	T	0.68	35	0.5	4	8	1
TAJP105*035#NJ	P	1	35	0.5	4	11	1
TAJS105*035#NJ	S	1	35	0.5	4	7.5	1
TAJT105*035#NJ	T	1	35	5	4	6.5	1
TAJT155*035#NJ	T	1.5	35	0.5	6	5.2	1
TAJT225*035#NJ	T	2.2	35	0.8	6	4.2	1
TAJW335*035#NJ	W	3.3	35	1.2	6	1.6	1
TAJW475*035#NJ	W	4.7	35	1.6	6	2.2	1
TAJY685*035#NJ	Y	6.8	35	2.3	6	0.9	1 <sup>1)</sup>
TAJX106*035#NJ	X	10	35	3.5	6	0.7	1 <sup>1)</sup>
TAJY106*035#NJ	Y	10	35	3.5	6	1	1 <sup>1)</sup>
TAJY156*035#NJ	Y	15	35	5.3	6	0.6	1 <sup>1)</sup>
TAJY226*035#NJ	Y	22	35	7.7	6	0.5	1 <sup>1)</sup>
<b>50 Volt @ 85°C (33 Volt @ 125°C)</b>							
TAJS104*050#NJ	S	0.1	50	0.5	4	19	1
TAJS154*050#NJ	S	0.15	50	0.5	4	16	1
TAJP224*050#NJ	P	0.22	50	0.5	4	17	1
TAJR224*050#NJ	R	0.22	50	0.5	4	17	1
TAJS224*050#NJ	S	0.22	50	0.5	4	13	1
TAJP334*050#NJ	P	0.33	50	0.5	4	17	1
TAJR334M050#NJ	R	0.33	50	0.5	4	17	1
TAJS334*050#NJ	S	0.33	50	0.5	4	11	1
TAJT334*050#NJ	T	0.33	50	0.5	4	11	1
TAJS474*050#NJ	S	0.47	50	0.5	4	9.5	1
TAJT474*050#NJ	T	0.47	50	0.5	4	9.5	1
TAJW105*050#NJ	W	1	50	0.5	6	4.4	1
TAJW155*050#NJ	W	1.5	50	0.8	6	3.1	1
TAJY335*050#NJ	Y	3.3	50	1.7	4	1.5	1 <sup>1)</sup>
TAJY475*050#NJ	Y	4.7	50	2.4	6	1.2	1 <sup>1)</sup>
TAJY685*050#NJ	Y	6.8	50	3.4	6	0.9	1 <sup>1)</sup>

<sup>1)</sup> Dry pack option (see How to order) recommended for reduction of stress during soldering. Dry pack parts should be treated as MSL 3.

Moisture Sensitivity Level (MSL) is defined according to J-STD-020.

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

For typical weight and composition see page 162.

**NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**