

TAJ Series

Low Profile



FEATURES

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



APPLICATIONS

- Entertainment/Infotainment systems

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 ₁ ±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)

W₁ dimension applies to the termination width for A dimensional area only.



MARKING

F, H, K, S, T, W, X, Y CASE



P, R CASE



HOW TO ORDER

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

TECHNICAL SPECIFICATIONS

Technical Data

CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

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

Released codes ^(M tolerance only)

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	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @ 100kHz	MSL	100kHz RMS Current (mA)		
											25°C	85°C	125°C
2.5 Volt @ 85°C													
TAJR475*002#NJ	R	4.7	2.5	85	1.7	125	0.5	6	20	1	52	47	21
TAJR685*002#NJ	R	6.8	2.5	85	1.7	125	0.5	6	20	1	52	47	21
TAJR106*002#NJ	R	10	2.5	85	1.7	125	0.5	8	4.5	1	111	99	44
TAJS106*002#NJ	S	10	2.5	85	1.7	125	0.5	6	8	1	90	81	36
TAJR156*002#NJ	R	15	2.5	85	1.7	125	0.5	8	4.1	1	116	104	46
TAJP226*002#NJ	P	22	2.5	85	1.7	125	0.5	8	3.5	1	131	118	52
TAJR226*002#NJ	R	22	2.5	85	1.7	125	0.5	8	3.8	1	120	108	48
TAJK336*002#NJ	K	33	2.5	85	1.7	125	0.8	8	1.7	1	188	169	75
TAJP336*002#NJ	P	33	2.5	85	1.7	125	0.7	8	3.5	1	131	118	52
TAJS336*002#NJ	S	33	2.5	85	1.7	125	0.7	8	1.5	1	208	187	83
TAJP476M002#NJ	P	47	2.5	85	1.7	125	1.2	12	3.2	1	137	123	55
TAJS476*002#NJ	S	47	2.5	85	1.7	125	1.2	8	1.6	1	202	181	81
TAJT686*002#NJ	T	68	2.5	85	1.7	125	1.4	8	1.5	1	231	208	92
TAJT107*002#NJ	T	100	2.5	85	1.7	125	2.5	15	1.3	1	248	223	99
TAJW107*002#NJ	W	100	2.5	85	1.7	125	2.5	8	0.4	1	474	427	190
TAJT157M002#NJ	T	150	2.5	85	1.7	125	3.8	18	1.2	1	258	232	103
TAJW157*002#NJ	W	150	2.5	85	1.7	125	3.8	8	0.3	1	548	493	219
TAJW227*002#NJ	W	220	2.5	85	1.7	125	5.5	8	0.3	1	548	493	219
TAJY227*002#NJ	Y	220	2.5	85	1.7	125	5.5	8	0.3	1 ¹⁾	645	581	258
TAJW337M002#NJ	W	330	2.5	85	1.7	125	8.2	12	0.3	1	548	493	219
TAJY337*002#NJ	Y	330	2.5	85	1.7	125	8.2	8	0.3	1 ¹⁾	645	581	258
TAJF477*002#NJ													

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @ 100kHz	MSL	100kHz RMS Current (mA)		
											25°C	85°C	125°C
TAJR225*006#NJ	R	2.2	6.3	85	4	125	0.5	6	20	1	52	47	21
TAJS225*006#NJ	S	2.2	6.3	85	4	125	0.5	6	18	1	60	54	24
TAJR335*006#NJ	R	3.3	6.3	85	4	125	0.5	6	12	1	68	61	27
TAJS335*006#NJ	S	3.3	6.3	85	4	125	0.5	6	9	1	85	76	34
TAJR475*006#NJ	R	4.7	6.3	85	4	125	0.5	6	7	1	89	80	35
TAJS475*006#NJ	S	4.7	6.3	85	4	125	0.5	6	7.5	1	93	84	37
TAJT475*006#NJ	T	4.7	6.3	85	4	125	0.5	6	6	1	115	104	46
TAJR685*006#NJ	R	6.8	6.3	85	4	125	0.5	8	7	1	89	80	35
TAJS685*006#NJ	S	6.8	6.3	85	4	125	0.5	6	2.6	1	158	142	63
TAJT685*006#NJ	T	6.8	6.3	85	4	125	0.5	6	5	1	126	114	51
TAJP106*006#NJ	P	10	6.3	85	4	125	0.6	8	6	1	100	90	40
TAJR106*006#NJ	R	10	6.3	85	4	125	0.6	8	6	1	96	86	38
TAJS106*006#NJ	S	10	6.3	85	4	125	0.6	8	4	1	127	115	51
TAJT106*006#NJ	T	10	6.3	85	4	125	0.6	6	4	1	141	127	57
TAJK156*006#NJ	K	15	6.3	85	4	125	0.9	6	2	1	173	156	69
TAJP156*006#NJ	P	15	6.3	85	4	125	0.9	8	3.5	1	131	118	52
TAJR156*006#NJ	R	15	6.3	85	4	125	0.9	8	4.1	1	116	104	46
TAJS156*006#NJ	S	15	6.3	85	4	125	0.9	8	3.5	1	136	123	55
TAJT156*006#NJ	T	15	6.3	85	4	125	0.9	6	3.5	1	151	136	60
TAJK226*006#NJ	K	22	6.3	85	4	125	1.3	10	1.8	1	183	164	73
TAJP226*006#NJ	P	22	6.3	85	4	125	1.3	8	3.3	1	135	121	54
TAJS226*006#NJ	S	22	6.3	85	4	125	1.3	10	1.8	1	190	171	76
TAJT226*006#NJ	T	22	6.3	85	4	125	1.4	8	2.5	1	179	161	72
TAJW226*006#NJ	W	22	6										

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @ 100kHz	MSL	100kHz RMS Current (mA)		
											25°C	85°C	125°C
TAJY686*010#NJ	Y	68	10	85	7	125	6.8	6	0.9	1 ¹⁾	373	335	149
TAJW107*010#NJ	W	100	10	85	7	125	10	6	0.4	1	474	427	190
TAJX107*010#NJ	X	100	10	85	7	125	10	8	0.9	1 ¹⁾	333	300	133
TAJY107*010#NJ	Y	100	10	85	7	125	10	6	0.9	1 ¹⁾	373	335	149
TAJF157*010#NJ	F	150	10	85	7	125	15	10	0.3	1	577	520	231
TAJX157M010#NJ	X	150	10	85	7	125	15	6	0.3	1 ¹⁾	577	520	231
TAJY157*010#NJ	Y	150	10	85	7	125	15	6	1.2	1 ¹⁾	323	290	129
TAJY227*010#NJ	Y	220	10	85	7	125	22	10	0.5	1 ¹⁾	500	450	200
16 Volt @ 85°C													
TAJR684*016#NJ	R	0.68	16	85	10	125	0.5	4	25	1	47	42	19
TAJS684*016#NJ	S	0.68	16	85	10	125	0.5	4	25	1	51	46	20
TAJR105*016#NJ	R	1	16	85	10	125	0.5	4	20	1	52	47	21
TAJS105*016#NJ	S	1	16	85	10	125	0.5	4	15	1	66	59	26
TAJT105*016#NJ	T	1	16	85	10	125	0.5	4	5	1	126	114	51
TAJR155*016#NJ	R	1.5	16	85	10	125	0.5	6	10	1	74	67	30
TAJS155*016#NJ	S	1.5	16	85	10	125	0.5	6	12	1	74	66	29
TAJR225*016#NJ	R	2.2	16	85	10	125	0.5	6	6.5	1	92	83	37
TAJS225*016#NJ	S	2.2	16	85	10	125	0.5	6	6	1	104	94	42
TAJT225*016#NJ	T	2.2	16	85	10	125	0.5	6	6.5	1	111	100	44
TAJR335*016#NJ	R	3.3	16	85	10	125	0.5	8	5	1	105	94	42
TAJS335*016#NJ	S	3.3	16	85	10	125	0.5	6	5	1	114	103	46
TAJT335*016#NJ	T	3.3	16	85	10	125	0.5	6	5	1	126	114	51
TAJK475*016#NJ	K	4.7	16	8									

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @ 100kHz	MSL	100kHz RMS Current (mA)		
											25°C	85°C	125°C
TAJT685*020#NJ	T	6.8	20	85	13	125	1.4	6	2.6	1	175	158	70
TAJW106*020#NJ	W	10	20	85	13	125	2	6	1.9	1	218	196	87
TAJW156*020#NJ	W	15	20	85	13	125	3	6	1.7	1	230	207	92
TAJW226*020#NJ	W	22	20	85	13	125	4.4	6	1.6	1	237	213	95
TAJY226*020#NJ	Y	22	20	85	13	125	4.4	6	0.9	1 ¹⁾	373	335	149
TAJX336*020#NJ	X	33	20	85	13	125	6.6	6	0.5	1 ¹⁾	447	402	179
TAJY336*020#NJ	Y	33	20	85	13	125	6.6	6	0.6	1 ¹⁾	456	411	183
TAJX476*020#NJ	X	47	20	85	13	125	9.4	6	0.4	1 ¹⁾	500	450	200
TAJY476*020#NJ	Y	47	20	85	13	125	9.4	6	0.9	1 ¹⁾	373	335	149
TAJY686*020#NJ	Y	68	20	85	13	125	13.6	6	0.9	1 ¹⁾	373	335	149
25 Volt @ 85°C													
TAJR154*025#NJ	R	0.15	25	85	17	125	0.5	4	24	1	48	43	19
TAJR224*025#NJ	R	0.15	25	85	17	125	0.5	4	21	1	51	46	20
TAJR334*025#NJ	R	0.15	25	85	17	125	0.5	4	17	1	57	51	23
TAJR474*025#NJ	R	0.47	25	85	17	125	0.5	4	15	1	61	54	24
TAJS474*025#NJ	S	0.47	25	85	17	125	0.5	4	9	1	85	76	34
TAJR684*025#NJ	R	0.68	25	85	17	125	0.5	4	13	1	65	59	26
TAJS684*025#NJ	S	0.68	25	85	17	125	0.5	4	8	1	90	81	36
TAJP105*025#NJ	P	1	25	85	17	125	0.5	4	11	1	74	66	30
TAJR105*025#NJ	R	1	25	85	17	125	0.5	4	8	1	83	75	33
TAJS105*025#NJ	S	1	25	85	17	125	0.5	4	8	1	90	81	36
TAJP155*025#NJ	P	1.5	25	85	17	125	0.5	6	9.6	1	79	71	32
TAJS155*025#NJ	S	1.5	25	85	17	125	0.5	6					

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @ 100kHz	MSL	100kHz RMS Current (mA)		
											25°C	85°C	125°C
TAJT334*050#NJ	T	0.33	50	85	33	125	0.5	4	11	1	85	77	34
TAJS474*050#NJ	S	0.47	50	85	33	125	0.5	4	9.5	1	83	74	33
TAJT474*050#NJ	T	0.47	50	85	33	125	0.5	4	9.5	1	92	83	37
TAJW105*050#NJ	W	1	50	85	33	125	0.5	6	4.4	1	143	129	57
TAJW155*050#NJ	W	1.5	50	85	33	125	0.8	6	3.1	1	170	153	68
TAJW225*050#NJ	W	2.2	50	85	33	125	1.1	8	2.5	1	190	171	76
TAJY335*050#NJ	Y	3.3	50	85	33	125	1.7	4	1.5	1 ¹⁾	289	260	115
TAJY475*050#NJ	Y	4.7	50	85	33	125	2.4	6	1.2	1 ¹⁾	323	290	129
TAJY685*050#NJ	Y	6.8	50	85	33	125	3.4	6	0.9	1 ¹⁾	373	335	149

QUALIFICATION TABLE

TEST	TAJ low profile series (Temperature range -55°C to +125°C)									
	Condition			Characteristics						
Endurance	Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.			Visual examination	no visible damage					
				DCL	1.25 x initial limit					
				ΔC/C	within ±10% of initial value					
				DF	initial limit					
Humidity	Determine after storage without applied voltage at 65±2°C and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.			Visual examination	no visible damage					
				DCL	initial limit					
				ΔC/C	within ±10% of initial value					
				DF	1.2 x initial limit					
Temperature Stability	Step	Temperature°C	Duration(min)		+20°C	-55°C	+20°C	+85°C	+125°C	+20°C
	1	+20±2	15							
	2	-55+0/-3	15</							