

TAJ Series

Standard Tantalum

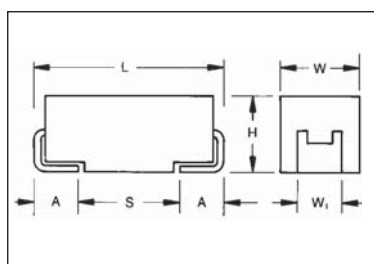


- General purpose SMT chip tantalum series
- 6 case sizes available
- Low profile options available
- CV range: 0.10-2200 μ F / 2.5-50V



SnPb termination option is not RoHS compliant.

CASE DIMENSIONS: millimeters (inches)



For part marking see page 149

Code	EIA Code	EIA Metric	L $\pm$ 0.20 (0.008)	W $\pm$ 0.20 (0.008) -0.10 (0.004)	H $\pm$ 0.20 (0.008) -0.10 (0.004)	W $\pm$ 0.20 (0.008)	A $\pm$ 0.30 (0.012) -0.20 (0.008)	S Min.
A	1206	3216-18	3.20 (0.126)	1.60 (0.063)	1.60 (0.063)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
B	1210	3528-21	3.50 (0.138)	2.80 (0.110)	1.90 (0.075)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
C	2312	6032-28	6.00 (0.236)	3.20 (0.126)	2.60 (0.102)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
D	2917	7343-31	7.30 (0.287)	4.30 (0.169)	2.90 (0.114)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
E	2917	7343-43	7.30 (0.287)	4.30 (0.169)	4.10 (0.162)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
V	2924	7361-38	7.30 (0.287)	6.10 (0.240)	3.55 (0.140)	3.10 (0.120)	1.30 (0.051)	4.40 (0.173)

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

HOW TO ORDER

TAJ	C	106	M	035	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 H = Tin Lead 7" Reel (Contact Manufacturer) K = Tin Lead 13" Reel (Contact Manufacturer) H, K = Non RoHS	Specification Suffix NJ = Standard Suffix	Additional characters may be added for special requirements 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 μ F to 2200 μ F

Capacitance Tolerance: ±10%; ±20%

Rated Voltage (V _R)	≤ +85°C:	2.5	4	6.3	10	16	20	25	35	50	
Category Voltage (V _C)	≤ +125°C:	1.7	2.7	4	7	10	13	17	23	33	
Surge Voltage (V _S)	≤ +85°C:	3.3	5.2	8	13	20	26	32	46	65	
Surge Voltage (V _S)	≤ +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_R with 0.1 Ω /V series impedance, 60% confidence level

Qualification: CECC 30801 - 005 issue 2
EIA 535BAAC

Termination Finished: Sn Plating (standard), Gold and SnPb Plating upon request
For AEC-Q200 availability, please contact AVX

Standard Tantalum

CAPACITANCE AND RATED VOLTAGE, VR (VOLTAGE CODE) 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	104								A	A
0.15	154								A	A/B
0.22	224								A	A/B
0.33	334								A	A/B
0.47	474							A	A/B	A/B/C
0.68	684						A	A	A/B	A/B/C
1.0	105					A	A	A	A/B	A ^(M) /B/C
1.5	155				A	A	A	A/B	A/B/C	B/C/D
2.2	225			A	A	A/B	A/B	A/B	A/B/C	B/C/D
3.3	335			A	A	A/B	A/B	A/B/C	B/C	C/D
4.7	475		A	A	A/B	A/B	A/B/C	A/B/C	B/C/D	C/D
6.8	685		A	A/B	A/B	A/B/C	A/B/C	B/C	C/D	C/D
10	106		A	A/B	A/B/C	A/B/C	A ^(M) */B/C	B/C/D	C/D/E	D/E/V
15	156		A/B	A/B	A/B/C	A ^(M) /B/C	B/C/D	C/D	C/D	D/E/V
22	226		A	A/B/C	A/B/C	B/C/D	B/C/D	C/D	D/E	V
33	336	A	A/B	A/B/C	A/B/C/D	B/C/D	C/D	D/E	D/E/V	
47	476	A	A/B	A/B/C/D	B/C/D	C/D	C/D/E	D/E	E/V	
68	686	A	A/B/C	B/C/D	B/C/D	C/D	C ^(M) /D/E	E/V	V	
100	107	A/B	A/B/C	B/C/D	B ^(M) /C/D/E	C/D/E	D/E/V	E ^(M) /V		
150	157	B	B/C	B ^(M) /C/D	C/D/E	D/E/V	E/V	V ^(M)		
220	227	B/D	B ^(M) /C/D	C/D/E	C/D/E	E/V				
330	337	D	C/D/E	C/D/E	D/E/V	E ^(M)				
470	477	C/D	C/D/E	D/E/V	E/V					
680	687	C/D/E	D/E	E/V						
1000	108	D ^(M) /E	D/E/V	E ^(M) /V ^(M)						
1500	158	D/E/V ^(M)	E/V ^(M)							
2200	228	V ^(M)								

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

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	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
2.5 Volt @ 85°C (1.7 Volt @ 125°C)							
TAJA336*002#NJ	A	33	2.5	0.8	8	1.7	1
TAJA476*002#NJ	A	47	2.5	0.9	6	3	1
TAJA686*002#NJ	A	68	2.5	1.4	8	1.5	1
TAJA107*002#NJ	A	100	2.5	2.5	30	1.4	1
TAJB107*002#NJ	B	100	2.5	2.5	8	1.4	1
TAJB157*002#NJ	B	150	2.5	3	10	1.6	1
TAJB227*002#NJ	B	220	2.5	4.4	16	1.6	1
TAJD227*002#NJ	D	220	2.5	5.5	8	0.3	1
TAJD337*002#NJ	D	330	2.5	8.2	8	0.3	1
TAJC477*002#NJ	C	470	2.5	9.4	12	0.2	1
TAJD477*002#NJ	D	470	2.5	11.6	8	0.2	1
TAJC687*002#NJ	C	680	2.5	17.0	18	0.2	1
TAJD687*002#NJ	D	680	2.5	17	16	0.2	1
TAJE687*002#NJ	E	680	2.5	17	10	0.2	1 ¹⁾
TAJD108M002#NJ	D	1000	2.5	25	20	0.2	1
TAJE108*002#NJ	E	1000	2.5	20	14	0.4	1 ¹⁾
TAJD158*002#NJ	D	1500	2.5	37.5	60	0.2	1
TAJE158*002#NJ	E	1500	2.5	37	20	0.2	1 ¹⁾
TAJV158M002#NJ	V	1500	2.5	30	20	0.2	1 ¹⁾
TAJV228M002#NJ	V	2200	2.5	55	50	0.2	1 ¹⁾
4 Volt @ 85°C (2.7 Volt @ 125°C)							
TAJA336*004#NJ	A	33	4	1.3	6	3	1
TAJA476*004#NJ	A	47	4	1.9	8	2.6	1
TAJA686*004#NJ	A	68	4	2.7	10	1.5	1
TAJB686*004#NJ	B	68	4	2.7	6	1.8	1
TAJA107*004#NJ	A	100	4	4	30	1.4	1
TAJB107*004#NJ	B	100	4	4	8	0.9	1
TAJB157*004#NJ	B	150	4	6	10	1.5	1
TAJC157*004#NJ	C	150	4	6	6	0.3	1
TAJB227M004#NJ	B	220	4	8.8	12	1.1	1
TAJC227*004#NJ	C	220	4	8.8	8	1.2	1
TAJD227*004#NJ	D	220	4	8.8	8	0.9	1
TAJC337*004#NJ	C	330	4	13.2	8	0.3	1
TAJD337*004#NJ	D	330	4	13.2	8	0.9	1
TAJC477*004#NJ	C	470	4	18.8	14	0.3	1
TAJD477*004#NJ	D	470	4	18.8	12	0.9	1
TAJE477*004#NJ	E	470	4	18.8	10	0.5	1 ¹⁾
TAJD687*004#NJ	D	680	4	27.2	14	0.5	1
TAJE687*004#NJ	E	680	4	27.2	14	0.9	1 ¹⁾
TAJD108*004#NJ	D	1000	4	40	60	0.2	1
TAJE108*004#NJ	E	1000	4	40	14	0.4	1 ¹⁾
TAJV108*004#NJ	V	1000	4	40	16	0.2	1 ¹⁾
TAJE158*004#NJ	E	1500	4	60	30	0.2	1 ¹⁾
TAJV158M004#NJ	V	1500	4	60	30	0.2	1 ¹⁾
6.3 Volt @ 85°C (4 Volt @ 125°C)							
TAJA106*006#NJ	A	10	6.3	0.6	6	4	1
TAJA156*006#NJ	A	15	6.3	0.9	6	3.5	1
TAJA226*006#NJ	A	22	6.3	1.4	6	3	1
TAJA336*006#NJ	A	33	6.3	2.1	8	2.2	1
TAJA476*006#NJ	A	47	6.3	2.8	10	1.6	1
TAJB476*006#NJ	B	47	6.3	3	6	2	1
TAJC476*006#NJ	C	47	6.3	3	6	1.6	1
TAJB686*006#NJ	B	68	6.3	4	8	0.9	1
TAJC686*006#NJ	C	68	6.3	4.3	6	1.5	1
TAJB107*006#NJ	B	100	6.3	6.3	10	1.7	1
TAJC107*006#NJ	C	100	6.3	6.3	6	0.9	1
TAJB157M006#NJ	B	150	6.3	9.5	10	1.2	1
TAJC157*006#NJ	C	150	6.3	9.5	6	1.3	1

AVX Part No.	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
10 Volt @ 85°C (7 Volt @ 125°C)							
TAJD157*006#NJ	D	150	6.3	9.5	6	0.9	1
TAJC227*006#NJ	C	220	6.3	13.9	8	1.2	1
TAJD227*006#NJ	D	220	6.3	13.9	8	0.4	1
TAJE227*006#NJ	E	220	6.3	13.9	8	0.4	1 ¹⁾
TAJC337*006#NJ	C	330	6.3	19.8	12	0.5	1
TAJD337*006#NJ	D	330	6.3	20.8	8	0.4	1
TAJE337*006#NJ	E	330	6.3	20.8	8	0.4	1 ¹⁾
TAJD477*006#NJ	D	470	6.3	28	12	0.4	1
TAJE477*006#NJ	E	470	6.3	28	10	0.4	1 ¹⁾
TAJV477*006#NJ	V	470	6.3	28	10	0.4	1 ¹⁾
TAJE687*006#NJ	E	680	6.3	42.8	10	0.5	1 ¹⁾
TAJV687*006#NJ	V	680	6.3	42.8	10	0.5	1 ¹⁾
TAJE108M006#NJ	E	1000	6.3	60	20	0.2	1 ¹⁾
TAJV108M006#NJ	V	1000	6.3	60	16	0.2	1 ¹⁾
16 Volt @ 85°C (10 Volt @ 125°C)							
TAJA475*010#NJ	A	4.7	10	0.5	6	5	1
TAJA685*010#NJ	A	6.8	10	0.7	6	4	1
TAJA106*010#NJ	A	10	10	1	6	3	1
TAJA156*010#NJ	A	15	10	1.5	6	3.2	1
TAJB156*010#NJ	B	15	10	1.5	6	2.8	1
TAJA226*010#NJ	A	22	10	2.2	8	3	1
TAJB226*010#NJ	B	22	10	2.2	6	2.4	1
TAJA336*010#NJ	A	33	10	3.3	8	1.7	1
TAJB336*010#NJ	B	33	10	3.3	6	1.8	1
TAJC336*010#NJ	C	33	10	3.3	6	1.6	1
TAJB476*010#NJ	B	47	10	4.7	8	1	1
TAJC476*010#NJ	C	47	10	4.7	6	1.2	1
TAJB686*010#NJ	B	68	10	6.8	6	1.4	1
TAJC686*010#NJ	C	68	10	6.8	6	1.3	1
TAJB107M010#NJ	B	100	10	10	8	1.4	1
TAJC107*010#NJ	C	100	10	10	8	1.2	1
TAJD107*010#NJ	D	100	10	10	6	0.9	1
TAJC157*010#NJ	C	150	10	15	8	0.9	1
TAJD157*010#NJ	D	150	10	15	8	0.9	1
TAJE157*010#NJ	E	150	10	15	8	0.9	1 ¹⁾
TAJC227*010#NJ	C	220	10	22	18	0.5	1
TAJD227*010#NJ	D	220	10	22	8	0.5	1
TAJE227*010#NJ	E	220	10	22	8	0.5	1 ¹⁾
TAJD337*010#NJ	D	330	10	33	8	0.9	1
TAJE337*010#NJ	E	330	10	33	8	0.9	1 ¹⁾
TAJV337*010#NJ	V	330	10	33	10	0.9	1 ¹⁾
TAJE477*010#NJ	E	470	10	47	10	0.5	1 ¹⁾
TAJV477*010#NJ	V	470	10	47	10	0.5	1 ¹⁾
16 Volt @ 85°C (10 Volt @ 125°C)							
TAJA225*016#NJ	A	2.2	16	0.5	6	6.5	1
TAJA335*016#NJ	A	3.3	16	0.5	6	5	1
TAJB335*016#NJ	B	3.3	16	0.5	6	4.5	1
TAJA475*016#NJ	A	4.7	16	0.8	6	4	1
TAJB475*016#NJ	B	4.7	16	0.8	6	3.5	1
TAJA685*016#NJ	A	6.8	16	1.1	6	3.5	1
TAJB685*016#NJ	B	6.8	16	1.1	6	2.5	1
TAJA106*016#NJ	A	10	16	1.6	6	3	1
TAJB106*016#NJ	B	10	16	1.6	6	2.8	1
TAJC106*016#NJ	C	10	16	1.6	6	2	1
TAJA156M016#NJ	A	15	16	2.4	6	2	1
TAJB156*016#NJ	B	15	16	2.4	6	2.5	1
TAJC156*016#NJ	C	15	16	2.4	6	1.8	1
TAJB226*016#NJ	B	22	16	3.5	6	2.3	1
TAJC226*016#NJ	C	22	16	3.5	6	1	1

¹⁾ 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.

For AEC-Q200 availability, please contact AVX.

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 142.

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.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
TAJD226*016#NJ	D	22	16	3.5	6	1.1	1
TAJB336*016#NJ	B	33	16	5.3	8	2.1	1
TAJC336*016#NJ	C	33	16	5.3	6	1.5	1
TAJD336*016#NJ	D	33	16	5.3	6	0.9	1
TAJC476*016#NJ	C	47	16	7.5	6	0.5	1
TAJD476*016#NJ	D	47	16	7.5	6	0.9	1
TAJC686*016#NJ	C	68	16	10.9	6	1.3	1
TAJD686*016#NJ	D	68	16	10.9	6	0.9	1
TAJC107*016#NJ	C	100	16	16	8	1	1
TAJD107*016#NJ	D	100	16	16	6	0.6	1
TAJE107*016#NJ	E	100	16	16	6	0.9	1 ¹⁾
TAJD157*016#NJ	D	150	16	24	6	0.9	1
TAJE157*016#NJ	E	150	16	23	8	0.3	1 ¹⁾
TAJV157*016#NJ	V	150	16	24	8	0.5	1 ¹⁾
TAJE227*016#NJ	E	220	16	35.2	10	0.5	1 ¹⁾
TAJV227*016#NJ	V	220	16	35.2	8	0.9	1 ¹⁾
TAJE337M016#NJ	E	330	16	52.8	30	0.4	1 ¹⁾
20 Volt @ 85°C (13 Volt @ 125°C)							
TAJA105*020#NJ	A	1	20	0.5	4	9	1
TAJA155*020#NJ	A	1.5	20	0.5	6	6.5	1
TAJA225*020#NJ	A	2.2	20	0.5	6	5.3	1
TAJB225*020#NJ	B	2.2	20	0.5	6	3.5	1
TAJA335*020#NJ	A	3.3	20	0.7	6	4.5	1
TAJB335*020#NJ	B	3.3	20	0.7	6	3	1
TAJA475*020#NJ	A	4.7	20	0.9	6	4	1
TAJB475*020#NJ	B	4.7	20	0.9	6	3	1
TAJA685*020#NJ	A	6.8	20	1.4	6	2.4	1
TAJB685*020#NJ	B	6.8	20	1.4	6	2.5	1
TAJC685*020#NJ	C	6.8	20	1.4	6	2	1
TAJB106*020#NJ	B	10	20	2	6	2.1	1
TAJC106*020#NJ	C	10	20	2	6	1.2	1
TAJB156*020#NJ	B	15	20	3	6	2	1
TAJC156*020#NJ	C	15	20	3	6	1.7	1
TAJB226*020#NJ	B	22	20	4.4	6	1.8	1
TAJC226*020#NJ	C	22	20	4.4	6	1.6	1
TAJD226*020#NJ	D	22	20	4.4	6	0.9	1
TAJC336*020#NJ	C	33	20	6.6	6	1.5	1
TAJD336*020#NJ	D	33	20	6.6	6	0.9	1
TAJC476*020#NJ	C	47	20	9.4	6	0.5	1
TAJD476*020#NJ	D	47	20	9.4	6	0.9	1
TAJE476*020#NJ	E	47	20	9.4	6	0.9	1 ¹⁾
TAJC686M020#NJ	C	68	20	13.6	8	0.5	1
TAJD686*020#NJ	D	68	20	13.6	6	0.4	1
TAJE686*020#NJ	E	68	20	13.6	6	0.9	1 ¹⁾
TAJD107*020#NJ	D	100	20	20	6	0.5	1
TAJE107*020#NJ	E	100	20	20	6	0.4	1 ¹⁾
TAJV107*020#NJ	V	100	20	20	8	0.9	1 ¹⁾
TAJE157*020#NJ	E	150	20	30	8	0.3	1 ¹⁾
TAJV157*020#NJ	V	150	20	30	8	0.3	1 ¹⁾
25 Volt @ 85°C (17 Volt @ 125°C)							
TAJA474*025#NJ	A	0.47	25	0.5	4	14	1
TAJA684*025#NJ	A	0.68	25	0.5	4	10	1
TAJA105*025#NJ	A	1	25	0.5	4	8	1
TAJA155*025#NJ	A	1.5	25	0.5	6	7.5	1
TAJB155*025#NJ	B	1.5	25	0.5	6	5	1
TAJA225*025#NJ	A	2.2	25	0.6	6	7	1
TAJB225*025#NJ	B	2.2	25	0.6	6	4.5	1
TAJA335*025#NJ	A	3.3	25	0.8	6	3.7	1

AVX Part No.	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
TAJB335*025#NJ	B	3.3	25	0.8	6	3.5	1
TAJA475*025#NJ	A	4.7	25	1.2	6	3.1	1
TAJB475*025#NJ	B	4.7	25	1.2	6	1.5	1
TAJB685*025#NJ	B	6.8	25	1.7	6	2.8	1
TAJC685*025#NJ	C	6.8	25	1.7	6	2	1
TAJB106*025#NJ	B	10	25	2.5	6	2.5	1
TAJC106*025#NJ	C	10	25	2.5	6	1.8	1
TAJD106*025#NJ	D	10	25	2.5	6	1.2	1
TAJC156*025#NJ	C	15	25	3.8	6	1.6	1
TAJD156*025#NJ	D	15	25	3.8	6	1	1
TAJC226*025#NJ	C	22	25	5.5	6	1.4	1
TAJD226*025#NJ	D	22	25	5.5	6	0.9	1
TAJD336*025#NJ	D	33	25	8.3	6	0.9	1
TAJE336*025#NJ	E	33	25	8.3	6	0.9	1 ¹⁾
TAJD476*025#NJ	D	47	25	11.8	6	0.9	1
TAJE476*025#NJ	E	47	25	11.8	6	0.9	1 ¹⁾
TAJE686*025#NJ	E	68	25	17	6	0.9	1 ¹⁾
TAJV686*025#NJ	V	68	25	17	6	0.9	1 ¹⁾
TAJE107M025#NJ	E	100	25	25	10	0.3	1 ¹⁾
TAJV107*025#NJ	V	100	25	25	8	0.4	1 ¹⁾
TAJV157M025#NJ	V	150	25	37.5	10	0.4	1 ¹⁾
35 Volt @ 85°C (23 Volt @ 125°C)							
TAJA104*035#NJ	A	0.1	35	0.5	4	24	1
TAJA154*035#NJ	A	0.15	35	0.5	4	21	1
TAJA224*035#NJ	A	0.22	35	0.5	4	18	1
TAJA334*035#NJ	A	0.33	35	0.5	4	15	1
TAJA474*035#NJ	A	0.47	35	0.5	4	12	1
TAJB474*035#NJ	B	0.47	35	0.5	4	10	1
TAJA684*035#NJ	A	0.68	35	0.5	4	8	1
TAJB684*035#NJ	B	0.68	35	0.5	4	8	1
TAJA105*035#NJ	A	1	35	0.5	4	7.5	1
TAJB105*035#NJ	B	1	35	0.5	4	6.5	1
TAJA155*035#NJ	A	1.5	35	0.5	6	7.5	1
TAJB155*035#NJ	B	1.5	35	0.5	6	5.2	1
TAJC155*035#NJ	C	1.5	35	0.5	6	4.5	1
TAJA225*035#NJ	A	2.2	35	0.8	6	4.5	1
TAJB225*035#NJ	B	2.2	35	0.8	6	4.2	1
TAJC225*035#NJ	C	2.2	35	0.8	6	3.5	1
TAJB335*035#NJ	B	3.3	35	1.2	6	3.5	1
TAJC335*035#NJ	C	3.3	35	1.2	6	2.5	1
TAJB475*035#NJ	B	4.7	35	1.6	6	3.1	1
TAJC475*035#NJ	C	4.7	35	1.6	6	2.2	1
TAJD475*035#NJ	D	4.7	35	1.6	6	1.5	1
TAJC685*035#NJ	C	6.8	35	2.4	6	1.8	1
TAJD685*035#NJ	D	6.8	35	2.4	6	1.3	1
TAJC106*035#NJ	C	10	35	3.5	6	1.6	1
TAJD106*035#NJ	D	10	35	3.5	6	1	1
TAJE106*035#NJ	E	10	35	3.5	6	0.9	1 ¹⁾
TAJC156*035#NJ	C	15	35	5.3	6	1.4	1
TAJD156*035#NJ	D	15	35	5.3	6	0.9	1
TAJD226*035#NJ	D	22	35	7.7	6	0.9	1
TAJE226*035#NJ	E	22	35	7.7	6	0.5	1 ¹⁾
TAJD336*035#NJ	D	33	35	11.6	6	0.9	1
TAJE336*035#NJ	E	33	35	11.6	6	0.9	1 ¹⁾
TAJV336*035#NJ	V	33	35	11.6	6	0.5	1 ¹⁾
TAJE476*035#NJ	E	47	35	16.5	6	0.9	1 ¹⁾
TAJV476*035#NJ	V	47	35	16.5	6	0.4	1 ¹⁾
TAJV686*035#NJ	V	68	35	23.8	6	0.5	1 ¹⁾

¹⁾ 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.

For AEC-Q200 availability, please contact AVX.

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 142.

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.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Cap (μ F)	Rated Voltage (V)	DCL (μ A) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
50 Volt @ 85°C (33 Volt @ 125°C)							
TAJA104*050#NJ	A	0.1	50	0.5	4	22	1
TAJA154*050#NJ	A	0.15	50	0.5	4	15	1
TAJB154*050#NJ	B	0.15	50	0.5	4	17	1
TAJA224*050#NJ	A	0.22	50	0.5	4	18	1
TAJB224*050#NJ	B	0.22	50	0.5	4	14	1
TAJA334*050#NJ	A	0.33	50	0.5	4	17	1
TAJB334*050#NJ	B	0.33	50	0.5	4	12	1
TAJA474*050#NJ	A	0.47	50	0.5	4	9.5	1
TAJB474*050#NJ	B	0.47	50	0.7	4	9.5	1
TAJC474*050#NJ	C	0.47	50	0.5	4	8	1
TAJA684*050#NJ	A	0.68	50	0.5	4	7.9	1
TAJB684*050#NJ	B	0.68	50	0.5	4	8	1
TAJC684*050#NJ	C	0.68	50	0.5	4	7	1
TAJA105*050#NJ	A	1	50	0.5	4	6.6	1
TAJB105*050#NJ	B	1	50	0.5	6	7	1
TAJC105*050#NJ	C	1	50	0.5	4	5.5	1
TAJB155*050#NJ	B	1.5	50	0.8	8	5.4	1
TAJC155*050#NJ	C	1.5	50	0.8	6	4.5	1
TAJD155*050#NJ	D	1.5	50	0.8	6	4	1
TAJB225*050#NJ	B	2.2	50	1.1	8	4.5	1
TAJC225*050#NJ	C	2.2	50	1.1	8	2.5	1
TAJD225*050#NJ	D	2.2	50	1.1	6	2.5	1
TAJC335*050#NJ	C	3.3	50	1.6	6	2.5	1
TAJD335*050#NJ	D	3.3	50	1.7	6	2	1
TAJC475*050#NJ	C	4.7	50	0.5	4	1.4	1
TAJD475*050#NJ	D	4.7	50	2.4	6	1.4	1
TAJC685*050#NJ	C	6.8	50	3.4	6	1	1
TAJD685*050#NJ	D	6.8	50	3.4	6	1	1
TAJD106*050#NJ	D	10	50	5	6	0.8	1
TAJE106*050#NJ	E	10	50	5	6	1	1 ¹⁾
TAJV106*050#NJ	V	10	50	5	6	0.65	1 ¹⁾
TAJD156*050#NJ	D	15	50	7.5	6	0.6	1
TAJE156*050#NJ	E	15	50	7.5	6	0.6	1 ¹⁾
TAJV156*050#NJ	V	15	50	7.5	6	0.6	1 ¹⁾
TAJV226*050#NJ	V	22	50	11	8	0.6	1 ¹⁾

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

For AEC-Q200 availability, please contact AVX.

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 142.

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.

TAJ Automotive Range



Standard Tantalum - Automotive Product Range

TAJ AUTOMOTIVE RANGE CAPACITANCE AND RATED VOLTAGE, V_R (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

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

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes

Engineering samples - please contact manufacturer

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

HOW TO ORDER

TAJ	C	106	M	035		T	NJ	V
Type	Case Size	Capacitance Code	Tolerance	Rated DC Voltage		Packaging	Specification Suffix	Dry Pack Option
	See table above	pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	K = ±10% M = ±20%	006 = 6.3Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc	025 = 25Vdc 035 = 35Vdc 050 = 50Vdc	T = Automotive Lead Free 7" Reel U = Automotive Lead Free 13" Reel	NJ = Std Suffix	(D,E case sizes mandatory)

TECHNICAL SPECIFICATIONS

Technical Data:

All technical data relate to an ambient temperature of +25°C

Capacitance Range: 0.22 μF to 680 μF

Capacitance Tolerance: $\pm 10\%$; $\pm 20\%$

Rated Voltage (V_R)	$\leq +85^\circ\text{C}$:	6.3	10	16	20	25	35	50	
Category Voltage (V_C)	$\leq +125^\circ\text{C}$:	4	7	10	13	17	23	33	
Surge Voltage (V_S)	$\leq +85^\circ\text{C}$:	8	13	20	26	32	46	65	
Surge Voltage (V_S)	$\leq +125^\circ\text{C}$:	5	8	13	16	20	28	40	

Temperature Range: -55°C to +125°C

Environmental Classification: 55/125/56 (IEC 68-2)

Reliability: 1% per 1000 hours at 85°C, V_R with 0.1 Ω /V series impedance, 60% confidence level

Termination Finished: Sn Plating (standard), Gold and SnPb Plating upon request

Meets requirements of AEC-Q200



TAJ Automotive Range



Standard Tantalum - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.*	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
6.3 Volt @ 85°C (4 Volt @ 125°C)							
TAJA335*006TNJ	A	3.3	6.3	0.5	6	7	1
TAJA106*006TNJ	A	10	6.3	0.6	6	4	1
TAJB106*006TNJ	B	10	6.3	0.6	6	3	1
TAJA156*006TNJ	A	15	6.3	0.9	6	3.5	1
TAJA226*006TNJ	A	22	6.3	1.4	6	3	1
TAJB226*006TNJ	B	22	6.3	1.4	6	2.5	1
TAJC226*006TNJ	C	22	6.3	1.4	6	2	1
TAJA336*006TNJ	A	33	6.3	2.1	8	2.2	1
TAJB336*006TNJ	B	33	6.3	2.1	6	2.2	1
TAJB476*006TNJ	B	47	6.3	3	6	2	1
TAJC476*006TNJ	C	47	6.3	3	6	1.6	1
TAJB686*006TNJ	B	68	6.3	4	8	0.9	1
TAJC686*006TNJ	C	68	6.3	4.3	6	1.5	1
TAJC107*006TNJ	C	100	6.3	6.3	6	0.9	1
TAJD107*006TNJV	D	100	6.3	6.3	6	0.9	3
TAJC157*006TNJ	C	150	6.3	9.5	6	1.3	1
TAJD157*006TNJV	D	150	6.3	9.5	6	0.9	3
TAJD227*006TNJV	D	220	6.3	13.9	8	0.4	3
TAJD337*006TNJV	D	330	6.3	20.8	8	0.4	3
TAJE337*006TNJV	E	330	6.3	20.8	8	0.4	3
TAJD477*006TNJV	D	470	6.3	28	12	0.4	3
TAJE477*006TNJV	E	470	6.3	28	10	0.4	3
TAJE687*006TNJV	E	680	6.3	42.8	10	0.5	3
10 Volt @ 85°C (7 Volt @ 125°C)							
TAJA225*010TNJ	A	2.2	10	0.5	6	7	1
TAJA475*010TNJ	A	4.7	10	0.5	6	5	1
TAJB475*010TNJ	B	4.7	10	0.5	6	4	1
TAJA685*010TNJ	A	6.8	10	0.7	6	4	1
TAJB685*010TNJ	B	6.8	10	0.7	6	3	1
TAJA106*010TNJ	A	10	10	1	6	3	1
TAJB106*010TNJ	B	10	10	1	6	2.1	1
TAJA156*010TNJ	A	15	10	1.5	6	3.2	1
TAJB156*010TNJ	B	15	10	1.5	6	2.8	1
TAJC156*010TNJ	C	15	10	1.5	6	2	1
TAJA226*010TNJ	A	22	10	2.2	8	3	1
TAJB226*010TNJ	B	22	10	2.2	6	2.4	1
TAJC226*010TNJ	C	22	10	2.2	6	1.8	1
TAJB336*010TNJ	B	33	10	3.3	6	1.8	1
TAJC336*010TNJ	C	33	10	3.3	6	1.6	1
TAJB476*010TNJ	B	47	10	4.7	8	1	1
TAJC476*010TNJ	C	47	10	4.7	6	1.2	1
TAJD476*010TNJV	D	47	10	4.7	6	0.4	3
TAJC686*010TNJ	C	68	10	6.8	6	1.3	1
TAJD686*010TNJV	D	68	10	6.8	6	0.9	3
TAJC107*010TNJ	C	100	10	10	8	1.2	1
TAJD107*010TNJV	D	100	10	10	6	0.9	3
TAJD157*010TNJV	D	150	10	15	8	0.9	3
TAJE157*010TNJV	E	150	10	15	8	0.9	3
TAJD227*010TNJV	D	220	10	22	8	0.5	3
TAJE227*010TNJV	E	220	10	22	8	0.5	3
TAJE337*010TNJV	E	330	10	33	8	0.9	3
16 Volt @ 85°C (10 Volt @ 125°C)							
TAJA105*016TNJ	A	1	16	0.5	4	11	1
TAJA225*016TNJ	A	2.2	16	0.5	6	6.5	1
TAJA335*016TNJ	A	3.3	16	0.5	6	5	1
TAJB335*016TNJ	B	3.3	16	0.5	6	4.5	1
TAJA475*016TNJ	A	4.7	16	0.8	6	4	1
TAJB475*016TNJ	B	4.7	16	0.8	6	3.5	1

AVX Part No.*	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
20 Volt @ 85°C (13 Volt @ 125°C)							
TAJA685*016TNJ	A	6.8	16	1.1	6	3.5	1
TAJB685*016TNJ	B	6.8	16	1.1	6	2.5	1
TAJA106*016TNJ	A	10	16	1.6	6	3	1
TAJB106*016TNJ	B	10	16	1.6	6	2.8	1
TAJC106*016TNJ	C	10	16	1.6	6	2	1
TAJB156*016TNJ	B	15	16	2.4	6	2.5	1
TAJC156*016TNJ	C	15	16	2.4	6	1.8	1
TAJB226*016TNJ	B	22	16	3.5	6	2.3	1
TAJC226*016TNJ	C	22	16	3.5	6	1	1
TAJD226*016TNJV	D	22	16	3.5	6	1.1	3
TAJC336*016TNJ	C	33	16	5.3	6	1.5	1
TAJD336*016TNJV	D	33	16	5.3	6	0.9	3
TAJC476*016TNJ	C	47	16	7.5	6	0.5	1
TAJD476*016TNJV	D	47	16	7.5	6	0.9	3
TAJC686*016TNJ	C	68	16	10.9	6	1.3	1
TAJD686*016TNJV	D	68	16	10.9	6	0.9	3
TAJD107*016TNJV	D	100	16	16	6	0.6	3
TAJE107*016TNJV	E	100	16	16	6	0.9	3
TAJE157*016TNJV	E	150	16	23	8	0.3	3
25 Volt @ 85°C (17 Volt @ 125°C)							
TAJA105*020TNJ	A	1	20	0.5	4	9	1
TAJA155*020TNJ	A	1.5	20	0.5	6	6.5	1
TAJA225*020TNJ	A	2.2	20	0.5	6	5.3	1
TAJB225*020TNJ	B	2.2	20	0.5	6	3.5	1
TAJA335*020TNJ	A	3.3	20	0.7	6	4.5	1
TAJB335*020TNJ	B	3.3	20	0.7	6	3	1
TAJA475*020TNJ	A	4.7	20	0.9	6	4	1
TAJB475*020TNJ	B	4.7	20	0.9	6	3	1
TAJB685*020TNJ	B	6.8	20	1.4	6	2.5	1
TAJC685*020TNJ	C	6.8	20	1.4	6	2	1
TAJB106*020TNJ	B	10	20	2	6	2.1	1
TAJC106*020TNJ	C	10	20	2	6	1.2	1
TAJB156*020TNJ	B	15	20	3	6	2	1
TAJC156*020TNJ	C	15	20	3	6	1.7	1
TAJC226*020TNJ	C	22	20	4.4	6	1.6	1
TAJD226*020TNJV	D	22	20	4.4	6	0.9	3
TAJC336*020TNJ	C	33	20	6.6	6	1.5	1
TAJD336*020TNJV	D	33	20	6.6	6	0.9	3
TAJD476*020TNJV	D	47	20	9.4	6	0.9	3
TAJD686*020TNJV	D	68	20	13.6	6	0.4	3
TAJE686*020TNJV	E	68	20	13.6	6	0.9	3
TAJE107*020TNJV	E	100	20	20	6	0.4	3
25 Volt @ 85°C (17 Volt @ 125°C)							
TAJA474*025TNJ	A	0.47	25	0.5	4	14	1
TAJA684*025TNJ	A	0.68	25	0.5	4	10	1
TAJA105*025TNJ	A	1	25	0.5	4	8	1
TAJA155*025TNJ	A	1.5	25	0.5	6	7.5	1
TAJA225*025TNJ	A	2.2	25	0.6	6	7	1
TAJB225*025TNJ	B	2.2	25	0.6	6	4.5	1
TAJB335*025TNJ	B	3.3	25	0.8	6	3.5	1
TAJB475*025TNJ	B	4.7	25	1.2	6	1.5	1
TAJC475*025TNJ	C	4.7	25	1.2	6	2.4	1
TAJB685*025TNJ	B	6.8	25	1.7	6	2.8	1
TAJC685*025TNJ	C	6.8	25	1.7	6	2	1
TAJC106*025TNJ	C	10	25	2.5	6	1.8	1
TAJD106*025TNJV	D	10	25	2.5	6	1.2	3
TAJC156*025TNJ	C	15	25	3.8	6	1.6	1
TAJD156*025TNJV	D	15	25	3.8	6	1	3
TAJC226*025TNJ	C	22	25	5.5	6	1.4	1

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

*Please use "U" instead of "T" in the suffix letter for 13" reel packaging

Please use specific PN for automotive version – see "HOW TO ORDER".

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 142.

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.

TAJ Automotive Range



Standard Tantalum - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.*	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz	MSL
TAJD226*025TNJV	D	22	25	5.5	6	0.9	3
TAJD336*025TNJV	D	33	25	8.3	6	0.9	3
TAJD476*025TNJV	D	47	25	11.8	6	0.9	3
TAJE476*025TNJV	E	47	25	11.8	6	0.9	3
35 Volt @ 85°C (23 Volt @ 125°C)							
TAJA334*035TNJ	A	0.33	35	0.5	4	15	1
TAJA474*035TNJ	A	0.47	35	0.5	4	12	1
TAJA684*035TNJ	A	0.68	35	0.5	4	8	1
TAJA105*035TNJ	A	1	35	0.5	4	7.5	1
TAJB105*035TNJ	B	1	35	0.5	4	6.5	1
TAJA155*035TNJ	A	1.5	35	0.5	6	7.5	1
TAJB155*035TNJ	B	1.5	35	0.5	6	5.2	1
TAJB225*035TNJ	B	2.2	35	0.8	6	4.2	1
TAJC225*035TNJ	C	2.2	35	0.8	6	3.5	1
TAJB335*035TNJ	B	3.3	35	1.2	6	3.5	1
TAJC335*035TNJ	C	3.3	35	1.2	6	2.5	1
TAJB475*035TNJ	B	4.7	35	1.6	6	3.1	1
TAJC475*035TNJ	C	4.7	35	1.6	6	2.2	1
TAJD475*035TNJV	D	4.7	35	1.6	6	1.5	3
TAJC685*035TNJ	C	6.8	35	2.4	6	1.8	1
TAJD685*035TNJV	D	6.8	35	2.4	6	1.3	3
TAJC106*035TNJ	C	10	35	3.5	6	1.6	1
TAJD106*035TNJV	D	10	35	3.5	6	1	3
TAJD156*035TNJV	D	15	35	5.3	6	0.9	3
TAJD226*035TNJV	D	22	35	7.7	6	0.9	3
TAJE226*035TNJV	E	22	35	7.7	6	0.5	3
TAJE336*035TNJV	E	33	35	11.6	6	0.9	3
50 Volt @ 85°C (33 Volt @ 125°C)							
TAJA224*050TNJ	A	0.22	50	0.5	4	18	1
TAJA334*050TNJ	A	0.33	50	0.5	4	17	1
TAJA474*050TNJ	A	0.47	50	0.5	4	9.5	1
TAJB474*050TNJ	B	0.47	50	0.7	4	9.5	1
TAJB684*050TNJ	B	0.68	50	0.5	4	8	1
TAJB105*050TNJ	B	1	50	0.5	6	7	1
TAJC105*050TNJ	C	1	50	0.5	4	5.5	1
TAJC155*050TNJ	C	1.5	50	0.8	6	4.5	1
TAJC225*050TNJ	C	2.2	50	1.1	8	2.5	1
TAJD225*050TNJV	D	2.2	50	1.1	6	2.5	3
TAJC335*050TNJ	C	3.3	50	1.6	6	2.5	1
TAJD335*050TNJV	D	3.3	50	1.7	6	2	3
TAJC475*050TNJ	C	4.7	50	0.5	4	1.4	1
TAJD475*050TNJV	D	4.7	50	2.4	6	1.4	3
TAJD685*050TNJV	D	6.8	50	3.4	6	1	3
TAJD106*050TNJV	D	10	50	5	6	0.8	3
TAJE106*050TNJV	E	10	50	5	6	1	3
TAJE156*050TNJV	E	15	50	7.5	6	0.6	3

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

*Please use "U" instead of "T" in the suffix letter for 13" reel packaging

Please use specific PN for automotive version – see "HOW TO ORDER".

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 142.

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.