

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 = $\pm 10\%$ M = $\pm 20\%$	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)	$\leq +85^\circ C$:	6.3	10	16	20	25	35	50	
Category Voltage (V_C)	$\leq +125^\circ C$:	4	7	10	13	17	23	33	
Surge Voltage (V_S)	$\leq +85^\circ C$:	8	13	20	26	32	46	65	
Surge Voltage (V_S)	$\leq +125^\circ C$:	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



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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 144.

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.

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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

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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 144.

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.