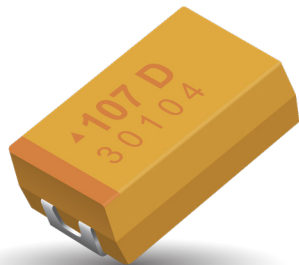


# TAJ Series

## Standard and Low Profile Tantalum Capacitors



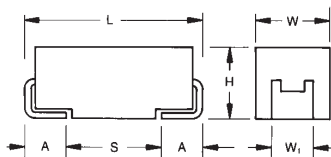
### FEATURES

- General purpose SMT chip tantalum series
- 17 case sizes available, standard and low profile down to 1mm maximum height
- CV range: 0.10 - 2200µF / 2.5 - 50V
- J-lead construction



### APPLICATIONS

- General low power DC/DC and LDO
- Entertainment / Infotainment systems
- Height restricted design



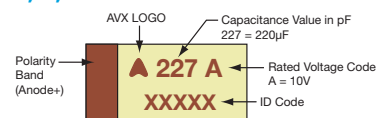
### STANDARD CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H+0.20 (0.008) -0.10 (0.004)	W1±0.20 (0.008)	A+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)
U	2924	7361-43	7.30 (0.287)	6.10 (0.240)	4.10 (0.162)	3.10 (0.122)	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 (0.122)	1.30 (0.051)	4.40 (0.173)

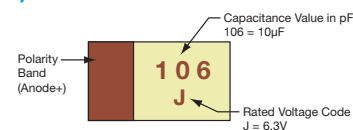
W1 dimension applies to the termination width for A dimensional area only.

### MARKING

A, B, C, D, E, F, H, K, S, T, U, V, W, X, Y CASE



P, R CASE



### LOW PROFILE 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.	W1±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.

### HOW TO ORDER

<b>TAJ</b>	<b>C</b>	<b>106</b>	<b>M</b>	<b>035</b>	<b>R</b>	<b>NJ</b>	<b>-</b>
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 K = Tin Lead 13" Reel H, K = Non RoHS A, B, H, K = please contact manufacturer	Specification Suffix NJ = Standard Suffix	Additional characters may be added for special requirements V = Dry pack Option (selected ratings only)

### TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C										
Capacitance Range:	0.10 µF to 2200 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										
Qualification:	CECC 30801 - 005 issue 2 EIA 535BAAC for standard case sizes										
Termination Finished:	Sn Plating (standard), Gold and SnPb Plating upon request										
	For AEC-Q200 availability, please contact AVX										



The Important Information/Disclaimer is incorporated in these specifications by reference and should be reviewed in full before placing any order.

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

Capacitance		Rated voltage DC (V <sub>R</sub> ) 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/B	A/B/C
1.0	105					A	A	A	A/B	A/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/B	A/B	A/B/C	A/B/C	B/C/D	C/D
6.8	685			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	B/C	B/C/D	C/D/E	D/E/V
15	156		A	A/B	A/B/C	A/B/C	B/C/D	C/D	C/D	D/E/V
22	226		A	A/B/C	A/B/C	A <sup>(M)</sup> /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	C/D/E	D/E/V	
47	476	A	A/B	A/B/C/D	B/C/D	C/D	C/D/E	D/E	D/E/V	
68	686	A	A/B	B/C/D	B/C/D	C/D	C <sup>(M)</sup> /D/E	D/E/V	V	
100	107	A/B	A/B/C	B/C/D	B/C/D/E	C/D/E	D/E/V	E/V		
150	157	B	B/C	B <sup>(M)</sup> /C/D	C/D/E	C/D/E	D/E/V	V <sup>(M)</sup>		
220	227	B/D	B/C/D	C/D/E	C/D/E	D <sup>(M)</sup> /E/V	E/V			
330	337	D	C/D	C/D/E	D/E/V	E <sup>(M)</sup>				
470	477	C/D	C/D/E	D/E/V	E/U/V					
680	687	C/D/E	D/E	D/E/V	E <sup>(M)</sup> /V <sup>(M)</sup>					
1000	108	D <sup>(M)</sup> /E	D/E/V	E <sup>(M)</sup> /V <sup>(M)</sup>						
1500	158	D/E/V <sup>(M)</sup>	E/V <sup>(M)</sup>							
2200	228	V <sup>(M)</sup>								

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

Capacitance		Rated voltage DC (V <sub>R</sub> ) 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						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/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	W
3.3	335		R/S	R/S	K/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	X/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	F/Y	Y	
33	336	K/P/S	K/P <sup>(M)</sup> /S/T/W	T/W	W	W/Y	X/Y	F/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	TM/W	W/Y	W/X/Y	F/XM/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 ratings (M tolerance only)

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



















# TAJ Series

## Standard and Low Profile Tantalum Capacitors



### RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL Max. (μA)	DF Max. (%)	ESR Max. @ 100kHz (Ω)	100kHz RMS Current (mA)			MSL
										25°C	85°C	125°C	
TAJS474*050#NJ	S	0.47	50	85	33	125	0.5	4	9.5	83	74	33	1
TAJT474*050#NJ	T	0.47	50	85	33	125	0.5	4	9.5	92	83	37	1
TAJA684*050#NJ	A	0.68	50	85	33	125	0.5	4	7.9	97	88	39	1
TAJB684*050#NJ	B	0.68	50	85	33	125	0.5	4	8	103	93	41	1
TAJC684*050#NJ	C	0.68	50	85	33	125	0.5	4	7	125	113	50	1
TAJA105*050#NJ	A	1	50	85	33	125	0.5	4	6.6	107	96	43	1
TAJB105*050#NJ	B	1	50	85	33	125	0.5	6	7	110	99	44	1
TAJC105*050#NJ	C	1	50	85	33	125	0.5	4	5.5	141	127	57	1
TAJW105*050#NJ	W	1	50	85	33	125	0.5	6	4.4	143	129	57	1
TAJB155*050#NJ	B	1.5	50	85	33	125	0.8	8	5.4	125	113	50	1
TAJC155*050#NJ	C	1.5	50	85	33	125	0.8	6	4.5	156	141	63	1
TAJD155*050#NJ	D	1.5	50	85	33	125	0.8	6	4	194	174	77	1
TAJW155*050#NJ	W	1.5	50	85	33	125	0.8	6	3.1	170	153	68	1
TAJB225*050#NJ	B	2.2	50	85	33	125	1.1	8	4.5	137	124	55	1
TAJC225*050#NJ	C	2.2	50	85	33	125	1.1	8	2.5	210	189	84	1
TAJD225*050#NJ	D	2.2	50	85	33	125	1.1	6	2.5	245	220	98	1
TAJW225*050#NJ	W	2.2	50	85	33	125	1.1	8	2.5	190	171	76	1
TAJC335*050#NJ	C	3.3	50	85	33	125	1.6	6	2.5	210	189	84	1
TAJD335*050#NJ	D	3.3	50	85	33	125	1.7	6	2	274	246	110	1
TAJY335*050#NJ	Y	3.3	50	85	33	125	1.7	4	1.5	289	260	115	1 <sup>1)</sup>
TAJC475*050#NJ	C	4.7	50	85	33	125	2.4	6	1.4	280	252	112	1
TAJD475*050#NJ	D	4.7	50	85	33	125	2.4	6	1.4	327	295	131	1
TAJX475*050#NJ	X	4.7	50	85	33	125	2.4	6	1.0	316	285	126	3
TAJY475*050#NJ	Y	4.7	50	85	33	125	2.4	6	1.2	323	290	129	1 <sup>1)</sup>
TAJC685*050#NJ	C	6.8	50	85	33	125	3.4	6	1	332	298	133	1
TAJD685*050#NJ	D	6.8	50	85	33	125	3.4	6	1	387	349	155	1
TAJY685*050#NJ	Y	6.8	50	85	33	125	3.4	6	0.9	373	335	149	1 <sup>1)</sup>
TAJD106*050#NJ	D	10	50	85	33	125	5	6	0.8	433	390	173	1
TAJE106*050#NJ	E	10	50	85	33	125	5	6	0.8	454	409	182	1 <sup>1)</sup>
TAJV106*050#NJ	V	10	50	85	33	125	5	6	0.65	620	558	248	1 <sup>1)</sup>
TAJD156*050#NJ	D	15	50	85	33	125	7.5	6	0.6	500	450	200	1
TAJE156*050#NJ	E	15	50	85	33	125	7.5	6	0.6	524	472	210	1 <sup>1)</sup>
TAJV156*050#NJ	V	15	50	85	33	125	7.5	6	0.6	645	581	258	1 <sup>1)</sup>
TAJV226*050#NJ	V	22	50	85	33	125	11	8	0.6	645	581	258	1 <sup>1)</sup>

1<sup>1)</sup> – Dry pack option (see How to order) is 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 274.

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

\*Initial Limit



### QUALIFICATION TABLE

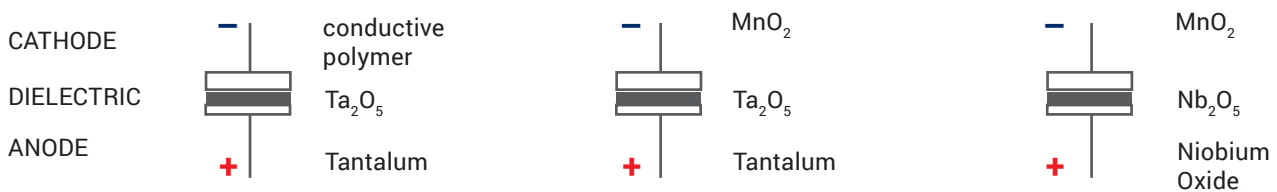
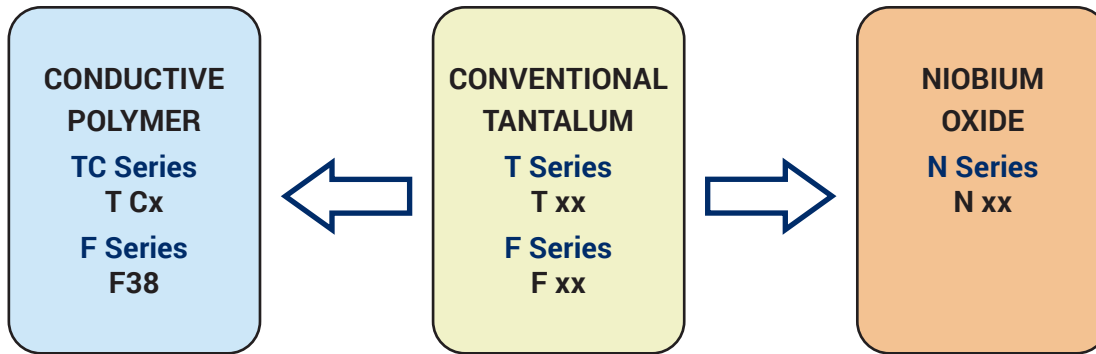
TEST	TAJ series (Temperature range -55°C to +125°C)									
	Condition			Characteristics						
Endurance	Apply rated voltage (Ur) at 85°C and / or category voltage (Uc) at 125°C for 2000 hours through a circuit impedance of $\leq 0.1\Omega/V$ . Stabilize at room temperature for 1-2 hours before measuring.			Visual examination	no visible damage					
				DCL	1.25 x initial limit					
				$\Delta C/C$	within $\pm 10\%$ of initial value					
				DF	initial limit					
Humidity	Store at 65°C and 95% relative humidity for 500 hours, with no applied voltage. Stabilize at room temperature and humidity for 1-2 hours before measuring.			Visual examination	no visible damage					
				DCL	1.5 x initial limit					
				$\Delta C/C$	within $\pm 10\%$ 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	15							
	2	-55	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*
	3	+20	15	$\Delta C/C$	n/a	+0/-10%	$\pm 5\%$	+10/-0%	+12/-0%	$\pm 5\%$
	4	+85	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*
	5	+125	15							
6	+20	15								
Surge Voltage	Apply 1.3x category voltage (Uc) at 125°C for 1000 cycles of duration 6 min (30 sec charge, 5 min 30 sec discharge) through a charge / discharge resistance of 1000 $\Omega$			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 5\%$ of initial value					
				DF	initial limit					
Mechanical Shock	MIL-STD-202, Method 213, Condition C			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 5\%$ of initial value					
				DF	initial limit					
				ESR	initial limit					
Vibration	MIL-STD-202, Method 204, Condition D			Visual examination	no visible damage					
				DCL	initial limit					
				$\Delta C/C$	within $\pm 5\%$ of initial value					
				DF	initial limit					
				ESR	initial limit					

# TAJ Series

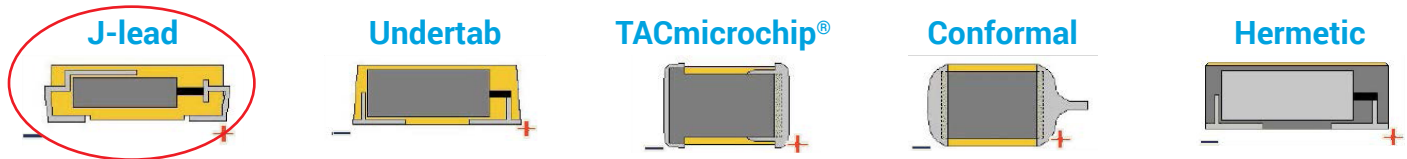
## Standard and Low Profile Tantalum Capacitors



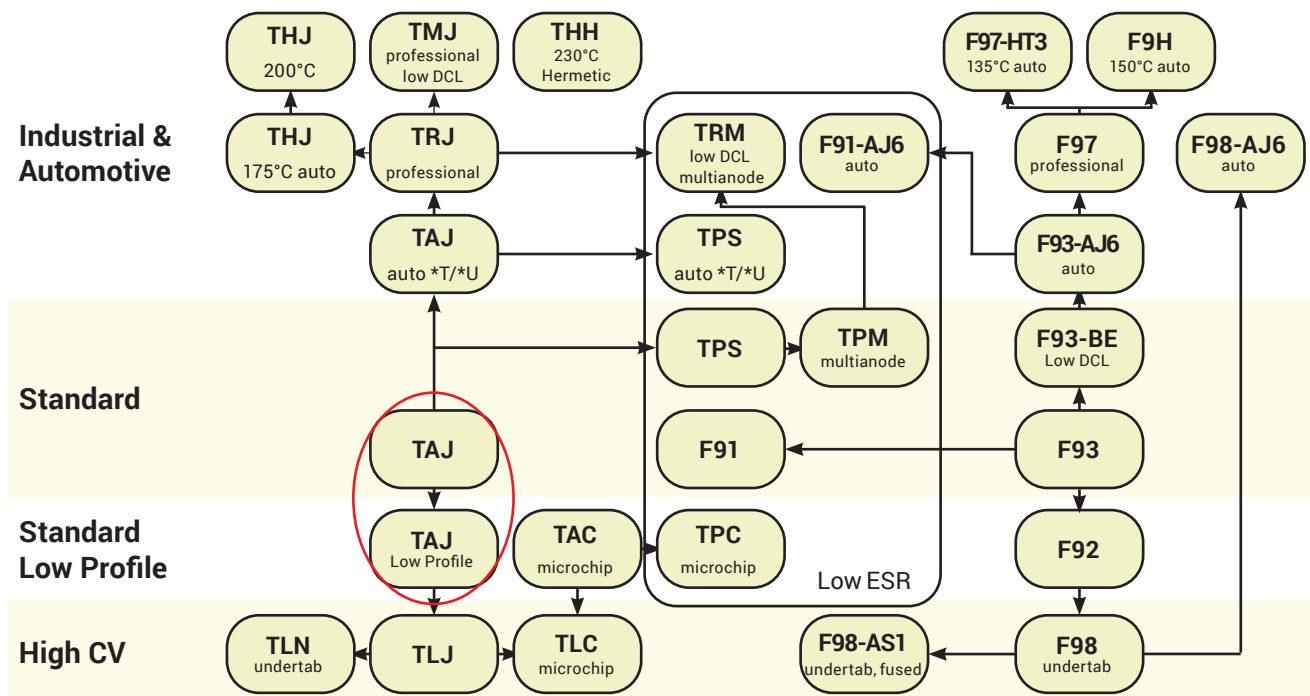
### AVX SOLID ELECTROLYTIC CAPACITOR ROADMAP



### FIVE CAPACITOR CONSTRUCTION STYLES



### SERIES LINE UP: CONVENTIONAL SMD MnO<sub>2</sub>



The Important Information/Disclaimer is incorporated in these specifications by reference and should be reviewed in full before placing any order.

## IMPORTANT INFORMATION/DISCLAIMER

All product specifications, statements, information and data (collectively, the “Information”) in this datasheet or made available on the website are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on AVX’s knowledge of typical operating conditions for such applications, but are not intended to constitute and AVX specifically disclaims any warranty concerning suitability for a specific customer application or use.

**ANY USE OF PRODUCT OUTSIDE OF SPECIFICATIONS OR ANY STORAGE OR INSTALLATION INCONSISTENT WITH PRODUCT GUIDANCE VOIDS ANY WARRANTY.**

The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by AVX with reference to the use of AVX’s products is given without regard, and AVX assumes no obligation or liability for the advice given or results obtained.

Although AVX designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Unless specifically agreed to in writing, AVX has not tested or certified its products, services or deliverables for use in high risk applications including medical life support, medical device, direct physical patient contact, water treatment, nuclear facilities, weapon systems, mass and air transportation control, flammable environments, or any other potentially life critical uses. Customer understands and agrees that AVX makes no assurances that the products, services or deliverables are suitable for any high-risk uses. Under no circumstances does AVX warrant or guarantee suitability for any customer design or manufacturing process.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

单击下面可查看定价，库存，交付和生命周期等信息

[>>AVX](#)