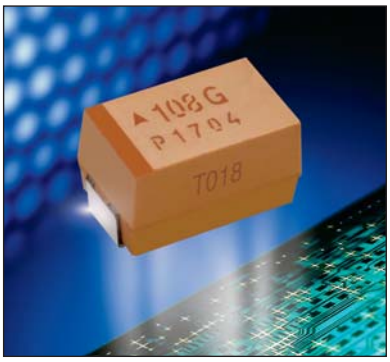
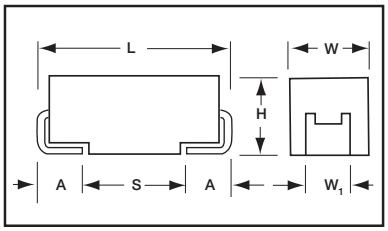
TBM Multianode

Tantalum Ultra Low ESR Capacitor COTS-Plus



Multianode COTS+ Tantalum capacitors offer the lowest ESR and highest ripple current available in a solid tantalum capacitor. Capacitors are Weibull graded and surge current tested per the customer's requirements.

TBM are also available with Sn/Pb terminations.



CASE DIMENSIONS: millimeters (inches)

Code	L±0.20 (0.008)	W+0.20 (0.008) –0.10 (0.004)	H+0.20 (0.008) –0.10 (0.004)	W_1 ±0.20 (0.008)	A+0.30 (0.012) –0.20 (0.008)	S Min.
E	7.30 (0.287)	4.30 (0.169)	4.10 (0.162)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

W_1 dimension applies to the termination width for A dimensional area only.

HOW TO ORDER

TBM	E	158	*	002	L	□	SB	0^	++
Type	**Case Size**	**Capacitance Code** pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	**Capacitance Tolerance** M = ±20% K = ±10%	**Voltage Code** 002 = 2.5Vdc 004 = 4Vdc 006 = 6Vdc 010 = 10Vdc 015 = 15Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc	**ESR** L = Low ESR	**Packaging** B = Bulk R = 7" T&R S = 13" T&R W = Waffle	**Qualification/ Reliability** S = COTS+ B = 0.1% per 1000 hrs.	**Termination Finish** 08 = Tin/Lead 07 = 100% Tin	**Surge Test Option** 00 = None 23 = 10 cycles, +25°C 24 = 10 cycles, -55°C & +85°C

NOTE: The EIA & CECC standards for low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalog limit post mounting.

TECHNICAL SPECIFICATIONS

Technical Data:		All technical data relate to an ambient temperature of +25°C								
Capacitance Range:		22 µF to 1500 µF								
Capacitance Tolerance:		±10%; ±20%								
Rated Voltage DC (V_R)	⩽+85°C:	2.5	4	6	10	15	20	25	35	
Category Voltage (V_C)	⩽+125°C:	1.7	2.7	4	7	10	13	17	23	
Surge Voltage (V_S)	⩽+85°C:	3.3	5.2	8	13	20	26	32	46	
	⩽+125°C:	2.2	3.4	5	8	13	16	20	28	
Temperature Range:		-55°C to +125°C								
Reliability:		1% per 1000 hours at 85°C, V_R with 0.1Ω/V series impedance, 60% confidence level								

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CAPACITANCE AND RATED VOLTAGE RANGE
LETTER DENOTES CASE SIZE ESR LIMIT IN BRACKETS

Capacitance		Rated Voltage DC (V_R) to 85°C							
µF	Code	2.5V (e)	4V (G)	6V (J)	10V (A)	15V (C)	20V (D)	25V (E)	35V (V)
10	106								
15	156								
22	226								E(60)
33	336								E(50)
47	476								E(55)
68	686							E(45)	
100	107						E(35)		
150	157					E(30)			
220	227					E(25)			
330	337				E(23)				
470	477			E(18)	E(23)				
680	687		E(18)	E(18), V(23)					
1000	108		E(18), V(18)						
1500	158	E(12)	E(15)						

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage(V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	100kHz Ripple Current Ratings (A)			100kHz Ripple Voltage Ratings (V)		
							25°C	85°C	125°C	25°C	85°C	125°C
TBME158*002L□SB0^++	E	1500	2.5	38	6	12	4.743	4.269	1.897	0.057	0.051	0.023
TBME687*004L□SB0^++	E	680	4	27	6	18	3.873	3.486	1.549	0.070	0.063	0.028
TBME108*004L□SB0^++	E	1000	4	40	6	18	3.873	3.486	1.549	0.070	0.063	0.028
TBMV108*004L□SB0^++	V	1000	4	40	6	18	3.979	3.581	1.592	0.072	0.064	0.029
TBME158*004L□SB0^++	E	1500	4	40	6	15	4.243	3.818	1.697	0.064	0.057	0.025
TBME477*006L□SB0^++	E	470	6	28	6	18	3.873	3.486	1.549	0.070	0.063	0.028
TBME687*006L□SB0^++	E	680	6	41	6	18	3.873	3.486	1.549	0.070	0.063	0.028
TBMV687*006L□SB0^++	V	680	6	41	6	23	3.520	3.168	1.408	0.081	0.073	0.032
TBME337*010L□SB0^++	E	330	10	33	6	23	3.426	3.084	1.370	0.079	0.071	0.032
TBME477*010L□SB0^++	E	470	10	47	6	23	3.426	3.084	1.370	0.079	0.071	0.032
TBME157*015L□SB0^++	E	150	15	24	6	30	3.000	2.700	1.200	0.090	0.081	0.036
TBME227*015L□SB0^++	E	220	15	35	6	25	3.286	2.958	1.315	0.082	0.074	0.033
TBME107*020L□SB0^++	E	100	20	20	6	35	2.777	2.500	1.111	0.097	0.087	0.039
TBME686*025L□SB0^++	E	68	25	17	6	45	2.449	2.205	0.980	0.110	0.099	0.044
TBME226*035L□SB0^++	E	22	35	8	6	60	2.121	1.909	0.849	0.127	0.115	0.051
TBME336*035L□SB0^++	E	33	35	12	6	50	2.324	2.091	0.930	0.116	0.105	0.046
TBME476*035L□SB0^++	E	47	35	16	6	55	2.216	1.994	0.886	0.122	0.110	0.049

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

* Insert K for ±10% and M for ±20% Capacitance Tolerance

TBM MULTIANODE CONSTRUCTION