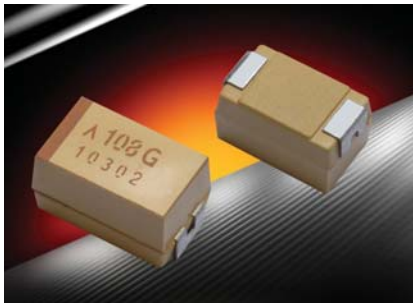
TCM Series

Tantalum Solid Electrolytic Chip Capacitors
Conductive Polymer Multianode

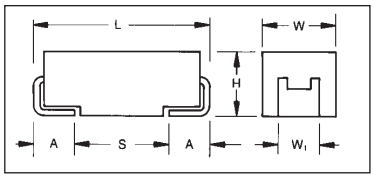


- Conductive polymer multianode
- Extremely Low ESR
- Reduced ignition failure mode
- 3x reflow 260°C compatible
- Volumetric efficiency
- High frequency capacitance retention

LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT



For part marking see page 130

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)	W_1±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
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)
W_1 dimension applies to the termination width for A dimensional area only.								

HOW TO ORDER

TCM	E	108	M	004	R	0010
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** M=±20%	**Rated DC Voltage** 004=4Vdc 006=6.3Vdc 010=10Vdc 035=35Vdc	**Packaging** R = Lead Free 7" Reel S = Lead Free 13" Reel	**ESR in mΩ**

TECHNICAL SPECIFICATIONS

Technical Data:		All technical data relate to an ambient temperature of +25°C				
Capacitance Range:		1000 µF				
Capacitance Tolerance:		±20%				
Leakage Current DCL:		0.1CV				
Rated Voltage (V_R)	≤ +85°C:	4	6.3	10	35	
Category Voltage (V_C)	≤ +105°C:	3.2	5	8	28	
Surge Voltage (V_S)	≤ +85°C:	5.2	8	13	46	
Surge Voltage (V_S)	≤ +105°C:	4	6	10	35	
Temperature Range:		-55ºC to +105ºC				
Reliability:		1% per 1000 hours at 85°C, V_R with 0.1Ω/V series impedance, 60% confidence level				

TCM Series

Tantalum Solid Electrolytic Chip Capacitors
Conductive Polymer Multianode

CAPACITANCE AND RATED VOLTAGE, VR (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V_R) to 85°C			
µF	Code	4V (G)	6.3V (J)	10V (A)	35V (V)
22	226				E(25)
33	336				
47	476				
68	686				
100	107				
150	157				
220	227				
330	337		E*	E(10)	
470	477		E*	E*	
680	687				
1000	108	E(10,12)			
1500	158				

Available Ratings, (ESR ratings in mOhms in brackets)

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)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25°C	85°C	105°C	25°C	85°C	105°C
4 Volt @ 85°C (3.2 Volt @ 105°C)													
TCME108M004#0010	E	1000	4	400	8	10	3	4062	3656	2640	41	37	26
TCME108M004#0012	E	1000	4	400	8	12	3	3708	3337	2410	44	40	12
6.3 Volt @ 85°C (5 Volt @ 105°C)													
TCME337M006#0010	E	330	6.3	198	8	10	3	4062	3656	2640	41	37	26
TCME447M006#0010	E	470	6.3	282	8	10	3	4062	3656	2640	41	37	26
10 Volt @ 85°C (8 Volt @ 105°C)													
TCME337M010#0010	E	330	10	330	8	10	3	4062	3656	2640	41	37	26
35 Volt @ 85°C (28 Volt @ 105°C)													
TCME226M035#0025	E	22	35	77	8	25	3	2569	2312	1670	64	58	42

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

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

ESR allowed to move up to 1.25 times catalog limit post mounting.

For typical weight and composition see page 123.

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.

Voltage vs Temperature Rating