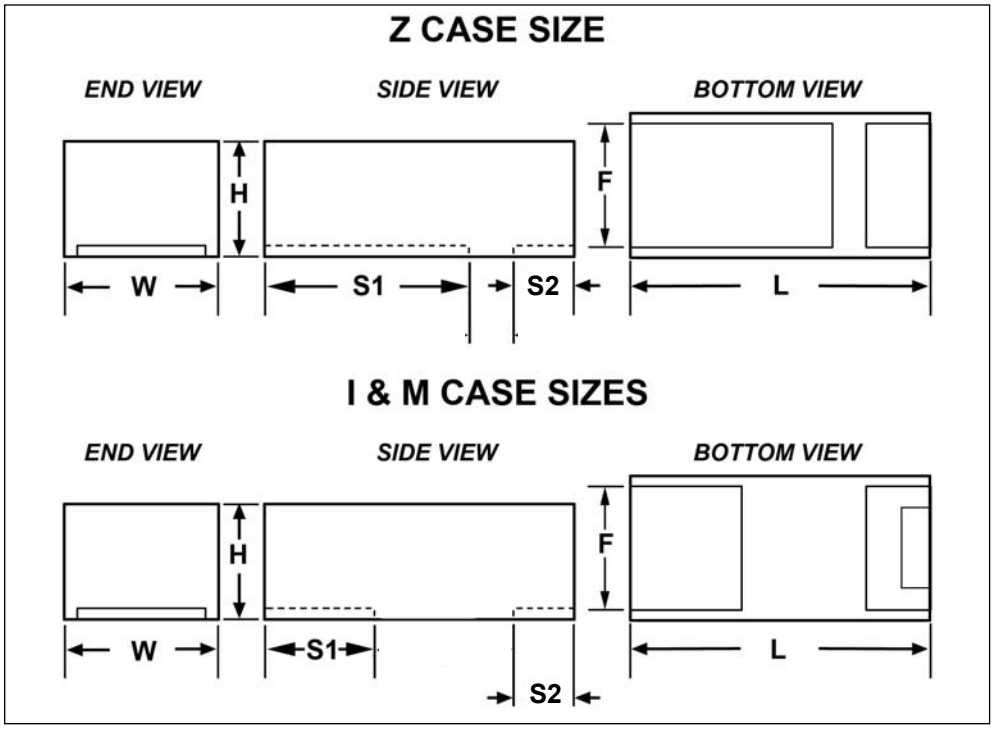
T528 Series - I, M, Z Case Sizes - Face Down Termination
Tantalum Surface Mount Capacitor

Features	
Polymer Cathode Technology	100% Accelerated Steady State Aging
Low ESL <0.7nH @ 20 MHz	100% Surge Current Testing
High Frequency Cap Retention	Self-Healing Mechanism
Non-Ignition Failure Mode	*Improved* Volumetric Efficiency
Capacitance: 33 - 470µF	Use up to 90% V_R
Voltage (V_R): 2.5V - 10V	RoHS Compliant
105°C Maximum Temperature Capability	Lead Free 260°C Reflow Capable

Outline Drawing



Dimensions – Millimeters

KEMET	EIA Size Code	L Length	W Width	H Height Max.	F LF Width ± 0.2	S1 Cathode ± 0.2	S2 Anode ± 0.2
I	3216-10	3.2 ± 0.20	1.6 ± 0.20	1.0	1.2	1.0	0.7
M	3528-15	3.5 ± 0.20	2.8 ± 0.20	1.5	2.0	1.2	0.6
Z	7343-17	7.3 ± 0.40	4.3 ± 0.30	1.7	2.8	5.1	1.3

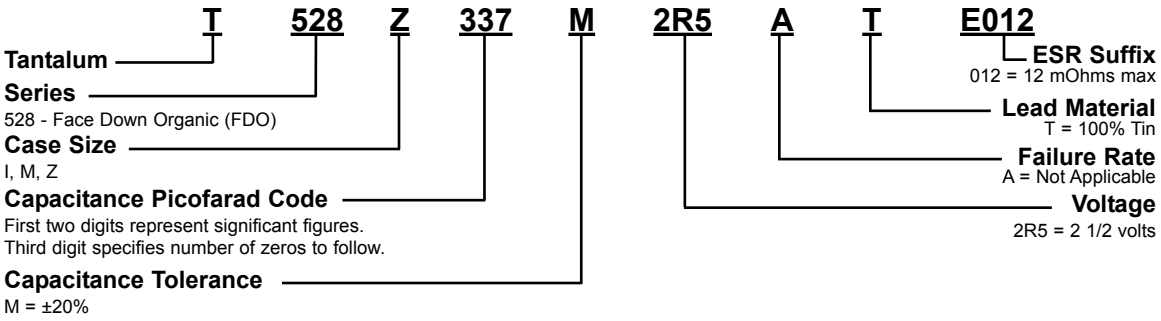
RoHS Compliant

T528 Ratings & Part Number Reference

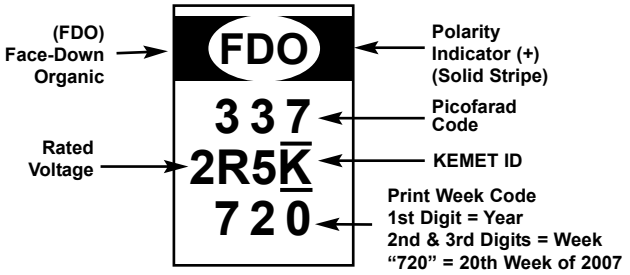
Capaci-tance µF	Case Size	KEMET Part Number	DC Leakage µA @ 25°C Max	DF% @ 25°C 120 Hz Max	ESR mΩ @ 25°C 100 kHz Max	Ripple Current (Arms) 100 kHz Max	
						w/ΔT= 20°C @ -55°C to 85°C	w/ΔT= 2°C @ 105°C
2.5 Volt Rating at 105°C							
330.0	Z	T528Z337M2R5ATE009	83.0	10.0	9	6.0	1.9
330.0	Z	T528Z337M2R5ATE012	83.0	10.0	12*	5.2	1.6
470.0	Z	T528Z477M2R5ATE009	118.0	10.0	9	6.0	1.9
470.0	Z	T528Z477M2R5ATE012	118.0	10.0	12	5.2	1.6
3 Volt Rating at 105°C							
100.0	I	T528I107M003ATE150	30.0	10.0	150	0.8	0.2
100.0	I	T528I107M003ATE200	30.0	10.0	200	0.7	0.2
330.0	M	T528M337M003ATE150	99.0	10.0	150	1.2	0.4
330.0	M	T528M337M003ATE200	99.0	10.0	200	1.0	0.3
4 Volt Rating at 105°C							
68.0	I	T528I686M004ATE150	27.2	10.0	150	0.8	0.2
68.0	I	T528I686M004ATE200	27.2	10.0	200	0.7	0.2
220.0	M	T528M227M004ATE150	88.0	10.0	150	1.2	0.4
220.0	M	T528M227M004ATE200	88.0	10.0	200	1.0	0.3
220.0	Z	T528Z227M004ATE009	88.0	10.0	9	6.0	1.9
220.0	Z	T528Z227M004ATE012	88.0	10.0	12	5.2	1.6
330.0	Z	T528Z337M004ATE009	132.0	10.0	9	6.0	1.9
330.0	Z	T528Z337M004ATE012	132.0	10.0	12	5.2	1.6
6.3 Volt Rating at 105°C							
47.0	I	T528I476M006ATE150	29.6	10.0	150	0.8	0.2
47.0	I	T528I476M006ATE200	33.0	10.0	200	0.7	0.2
150.0	M	T528M157M006ATE150	94.5	10.0	150	1.2	0.4
150.0	M	T528M157M006ATE200	94.5	10.0	150	1.0	0.3
150.0	Z	T528Z157M006ATE009	94.5	10.0	9	6.0	1.9
150.0	Z	T528Z157M006ATE012	94.5	10.0	12	5.2	1.6
220.0	Z	T528Z227M006ATE009	138.6	10.0	9	6.0	1.9
220.0	Z	T528Z227M006ATE012	138.6	10.0	12	5.2	1.6
10 Volt Rating at 105°C							
33.0	I	T528I336M010ATE150	33.0	10.0	150	0.8	0.2
33.0	I	T528I336M010ATE200	33.0	10.0	200	0.7	0.2
100.0	M	T528M107M010ATE150	100.0	10.0	150	1.2	0.4
100.0	M	T528M107M010ATE200	100.0	10.0	200	1.0	0.3

* ESR specification: 10 mOhms ±20%

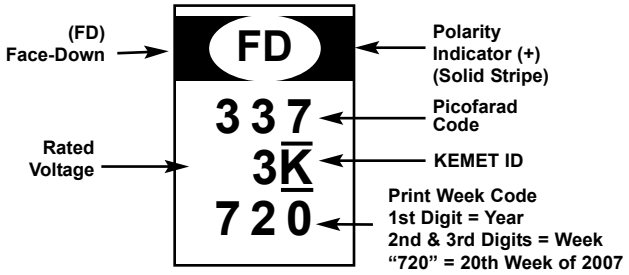
Ordering Information



Component Marking - Z Case



Component Marking - I & M Case

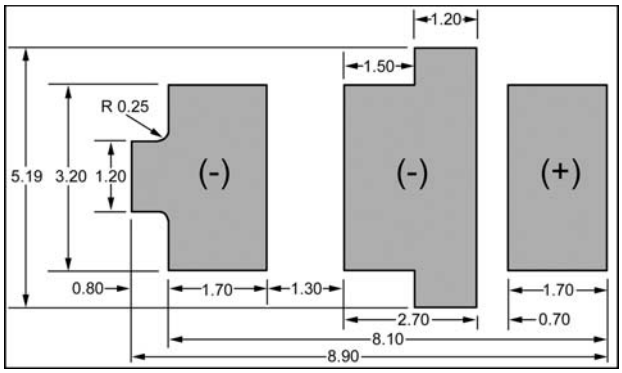


Component Packaging

Case Code		Tape & Reel Dimensions				
KEMET	EIA	Tape Width mm	Pitch mm		Reel Quantity	
			Part	Sprocket	180mm (7" dia)	330mm (13" dia)
I	3216-10	8.0 ± 0.3	4.0 ± 0.1	4.0 ± 0.1	2,000	9,000
M	3528-15	8.0 ± 0.3	4.0 ± 0.1	4.0 ± 0.1	2,000	8,000
Z	7343-17	12.0 ± 0.3	8.0 ± 0.1	4.0 ± 0.1	1,000	3,000

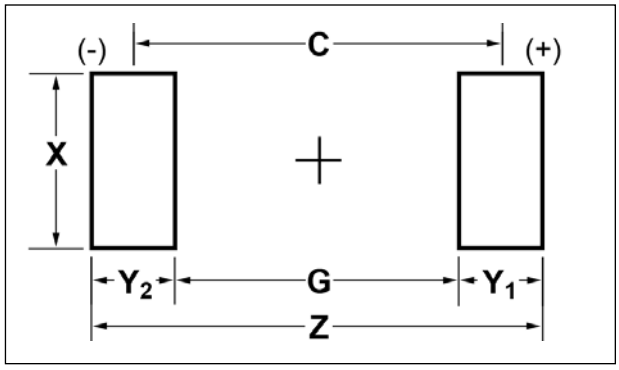
Land Pattern Dimensions for Reflow Solder

T528 Z Case



Facedown 7343-17 will NOT fit on standard 7343 solder pads, and movement along Z axis could result in a short. Three-pad design must be used with center pad connection to circuit for low ESL properties. Dual pads on cathode connection required to prevent solder lifting with one cathode pad, and for mechanical hold. Will fit on Sanyo TPL pad specification - all dimensions equal except for 0.80mm tab extension at left cathode (-) plate as shown above.

T528 I & M Case



T528I & M Pad Dimensions (mm)

Case	Z	G	X	Y1 (ref)	Y2 (ref)	C (ref)
528I	3.25	1.65	1.10	0.80	0.80	2.45
528M	4.30	1.30	2.40	1.20	1.80	2.80

In general, the information in the KEMET Surface Mount catalog F3102 applies to these capacitors. The information in this bulletin supplements that in the catalog.