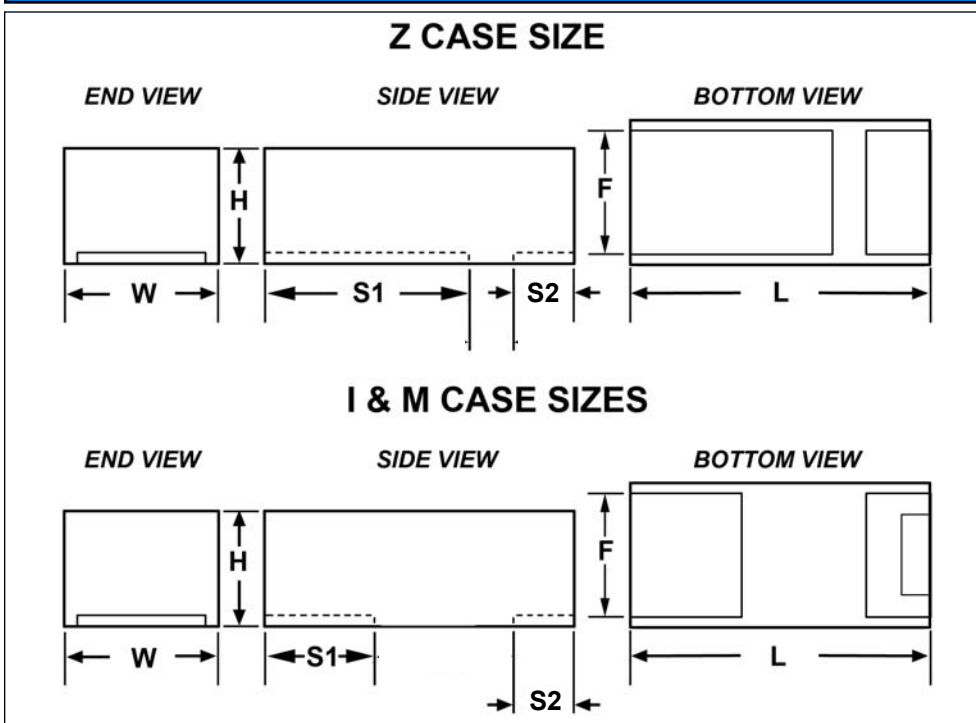


## T528 Series - I, M, Z Case Sizes - Face Down Termination Tantalum Surface Mount Capacitor

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 - 470 $\mu$ F	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



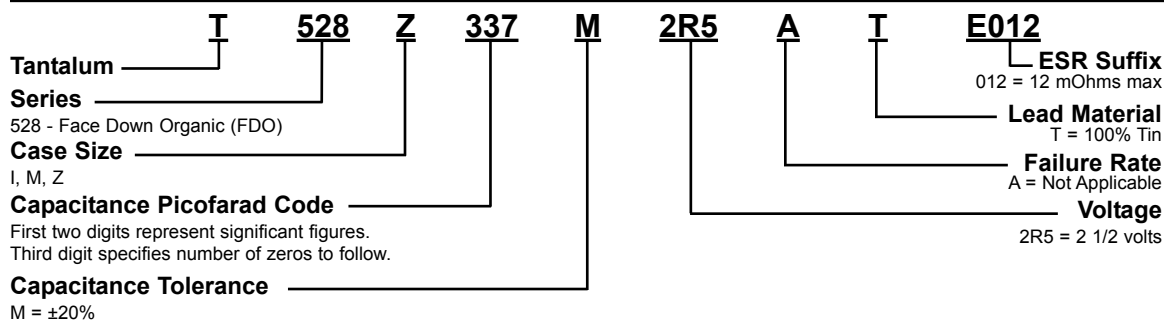
### Dimensions – Millimeters

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

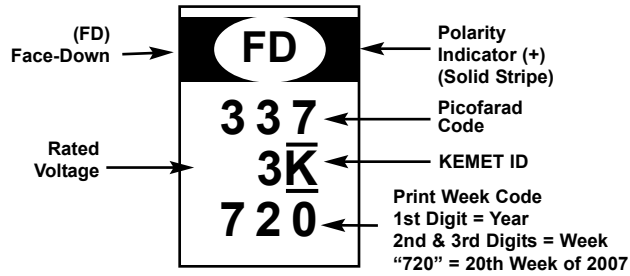
## T528 Ratings & Part Number Reference

Rated Voltage (V)	Rated Capacitance (µF)	Case Code/ Case Size	KEMET Part Number	DC Leakage µA @ 20°C max/5min	DF% @ 20°C 120 Hz Max	ESR mΩ @ 20°C 100 kHz Max	Maximum allowable ripple current (mArms) 100kHz*	MSL Reflow Temp ≤ 260°C
2.5	330	Z	T528Z337M2R5ATE007	83	10	7	6800	3
	330	Z	T528Z337M2R5ATE008	83	10	8	6400	
	330	Z	T528Z337M2R5ATE009	83	10	9	6000	
	330	Z	T528Z337M2R5ATE012	83	10	12	5200	
	470	Z	T528Z477M2R5ATE008	118	10	8	6400	
	470	Z	T528Z477M2R5ATE009	118	10	9	6000	
	470	Z	T528Z477M2R5ATE012	118	10	12	5200	
3	100	I	T528I107M003ATE150	30	10	150	800	3
	100	I	T528I107M003ATE200	30	10	200	700	
	330	M	T528M337M003ATE150	99	10	150	1200	
	330	M	T528M337M003ATE200	99	10	200	1000	
4	68	I	T528I686M004ATE150	27.2	10	150	800	3
	68	I	T528I686M004ATE200	27.2	10	200	700	
	220	M	T528M227M004ATE150	88	10	150	1200	
	220	M	T528M227M004ATE200	88	10	200	1000	
	220	Z	T528Z227M004ATE007	88	10	7	6800	
	220	Z	T528Z227M004ATE008	88	10	8	6400	
	220	Z	T528Z227M004ATE009	88	10	9	6000	
	220	Z	T528Z227M004ATE012	88	10	12	5200	
	330	Z	T528Z337M004ATE009	132	10	9	6000	
330	Z	T528Z337M004ATE012	132	10	12	5200		
6.3	47	I	T528I476M006ATE150	29.6	10	150	800	3
	47	I	T528I476M006ATE200	33	10	200	700	
	150	M	T528M157M006ATE150	94.5	10	150	1200	
	150	M	T528M157M006ATE200	94.5	10	200	1000	
	150	Z	T528Z157M006ATE007	94.5	10	7	6800	
	150	Z	T528Z157M006ATE008	94.5	10	8	6400	
	150	Z	T528Z157M006ATE009	94.5	10	9	6000	
	150	Z	T528Z157M006ATE012	94.5	10	12	5200	
	220	Z	T528Z227M006ATE009	138.6	10	9	6000	
220	Z	T528Z227M006ATE012	138.6	10	12	5200		
10	33	I	T528I336M010ATE150	33	10	150	800	3
	33	I	T528I336M010ATE200	33	10	200	700	
	100	M	T528M107M010ATE150	100	10	150	1200	
	100	M	T528M107M010ATE200	100	10	200	1000	

## Ordering Information



## Component Marking

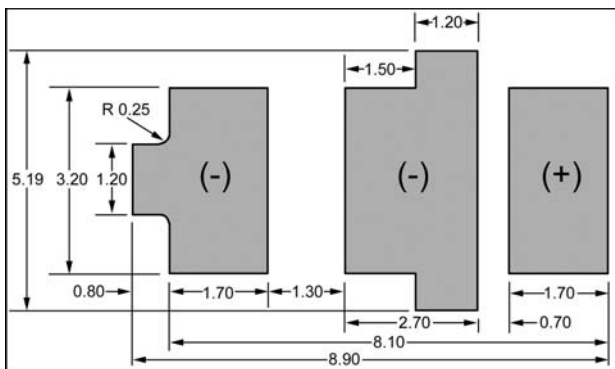


## Component Packaging

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	3,000	12,000
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

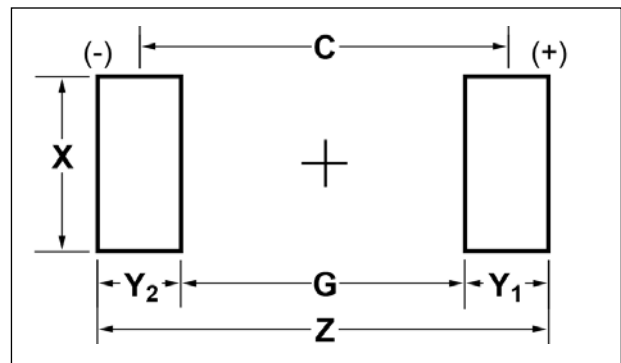
## Land Pattern Dimensions for Reflow Solder

**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.*