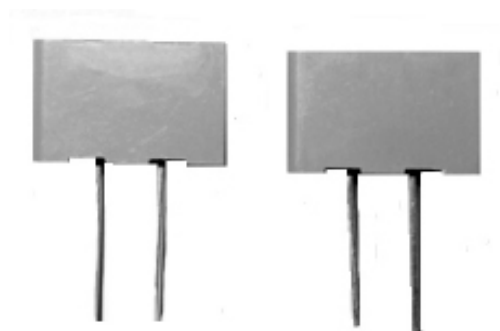


Type TIM Solid Tantalum Capacitors

Molded, Radial Lead, Solid Tantalum Capacitors



The Type TIM radial molded solid tantalum capacitor is great for saving board space with its higher profile and smaller board space requirement. It is ideal for high density packaging coupled with low DCL and low ESR performance needed in compact power supply designs. The radius on the vertical side allows for polarization during automatic or hand insertion. The Type TIM is available in bulk or on radial tape and reel.

Highlights

- ◆ Precision Molded
- ◆ Low DCL
- ◆ Low ESR
- ◆ Radius on vertical edge for polarity identification
- ◆ Excellent temperature stability
- ◆ Standoffs for easier flux removal
- ◆ Resistant to shock and vibration

Specifications

Capacitance Range: 0.10 μ F to 220 μ F

Voltage Range: 6 WVdc to 50 WVdc at 85 °C

Tolerance: $\pm 10\%$, $\pm 20\%$

Operating Temperature Range: $-55\text{ }^{\circ}\text{C}$ to $+125\text{ }^{\circ}\text{C}$ (with proper derating)

DC Leakage: $+25\text{ }^{\circ}\text{C}$ - See ratings limit

$+85\text{ }^{\circ}\text{C}$ - 10 x 25 °C limit

$+125\text{ }^{\circ}\text{C}$ - 12.5 x 25 °C limit

Capacitance Change Maximum: -10% @ $-55\text{ }^{\circ}\text{C}$

$+10\%$ @ $+85\text{ }^{\circ}\text{C}$

$+15\%$ @ $+125\text{ }^{\circ}\text{C}$

Maximum Power Dissipation: W & X .090 Watts

Y .100 Watts

Z .125 Watts

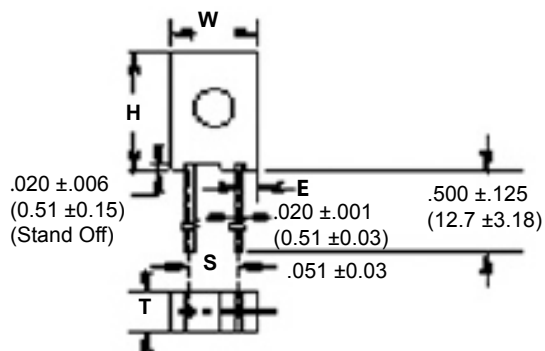
Reel Packaging per EIA- RS-468:

Case Code	Quantity
W	1,500 per 14" Reel
X	1,500 per 14" Reel
Y	1,500 per 14" Reel
Z	N/A

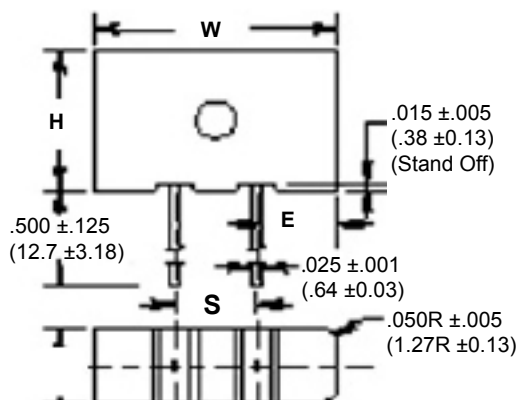
Type TIM Solid Tantalum Capacitors

Capacitor Outline Drawing

W Case



X, Y, Z Cases



Note:
On the "X" Case sizes,
the standoff appears
only between the
two leads

Case Code	H Case Height	W Case Width	T Case Thickness	E Case to Wire	S Lead spacing
W	.345 ±.008 (8.76 ±.203)	.230 ±.005 (5.84 ±.127)	.105 ±.005 (2.67 ±.127)	.050 ±.010 (1.27 ±0.25)	.125 ±.005 (3.18 ±0.127)
X	.225 ±.015 (5.71 ±0.38)	.285 ±.015 (7.24 ±0.38)	.170 ±.015 (4.32 ±0.38)	.042 ±.010 (1.07 ±0.25)	.200 ±.005 (5.08 ±0.127)
Y	.325 ±.015 (8.26 ±0.38)	.325 ±.015 (8.26 ±0.38)	.170 ±.015 (4.32 ±0.38)	.062 ±.010 (1.57 ±0.25)	.200 ±.005 (5.08 ±0.127)
Z	.375 ±.015 (9.53 ±0.38)	.600 ±.015 (15.24 ±0.38)	.195 ±.015 (4.95 ±0.38)	.200 ±.010 (5.08 ±0.25)	.200 ±.005 (5.08 ±0.127)

Dimensions in inches

Part Numbering System

TIM	150	K	010	P	0	Z
Type	Capacitance	Tolerance	Voltage	Polar	Molded Case	Case Code
TIM	104 = 0.10 μ F 105 = 1.0 μ F 225 = 2.2 μ F 186 = 18.6 μ F 157 = 150 μ F	K = $\pm$ 10% M = $\pm$ 20%	006 = 6 Vdc 010 = 10 Vdc 015 = 15 dc 020 = 20 Vdc 025 = 25 Vdc 035 = 35 Vdc 050 = 50 Vdc	P = Polar	0	W X Y Z

Type TIM Solid Tantalum Capacitors

Ratings

Cap (μF)	Catalog Part Number	Case Code	Max DCL @ +25 °C (μA)	Max DF @ +25 °C 120 Hz (%)	Max Ripple 25 °C	
					@ 120 Hz (mA rms)	@ 1 kHz (mA rms)
6 WVdc @ 85 °C 4 WVdc @ 125 °C						
22	TIM226*006P0X	X	1	6	35	290
56	TIM566*006P0Y	Y	5	6	89	570
68	TIM686*006P0Y	Y	5	6	100	630
220	TIM227*006P0Z	Z	10	6	350	1000
10 WVdc @ 85 °C 7 WVdc @ 125 °C						
6.8	TIM685*010P0X	X	1	6	18	150
10	TIM106*010P0W	W	1	6	26	220
10	TIM106*010P0X	X	1	6	26	220
15	TIM156*010P0W	W	1	6	39	270
15	TIM156*010P0X	X	1	6	39	270
22	TIM226*010P0Y	Y	2	6	58	360
33	TIM336*010P0Y	Y	2	6	87	440
39	TIM396*010P0Y	Y	5	6	100	480
47	TIM476*010P0Y	Y	5	6	120	590
56	TIM566*010P0Y	Y	5	6	140	650
150	TIM157*010P0Z	Z	10	6	390	920
15 WVdc @ 85 °C 10 WVdc @ 125 °C						
5.6	TIM565*015P0X	X	1	6	22	180
6.8	TIM685*015P0X	X	1	6	27	180
8.2	TIM825*015P0X	X	1	6	32	200
10	TIM106*015P0Y	Y	1	6	35	270
15	TIM156*015P0Y	Y	2	6	59	290
22	TIM226*015P0Y	Y	5	6	87	360
27	TIM276*015P0Y	Y	5	6	100	390
33	TIM336*015P0Y	Y	5	6	130	440
20 WVdc @ 85 °C 13 WVdc @ 125 °C						
5.6	TIM565*020POW	W	1	6	29	180
6.8	TIM685*020POW	W	1	6	36	200
25 WVdc @ 85 °C 17 WVdc @ 125 °C						
3.3	TIM335*025P0W	W	1	4	21	150
3.3	TIM335*025P0X	X	1	6	21	150
4.7	TIM475*025P0X	X	1	6	31	180
6.8	TIM685*025P0Y	Y	1	6	45	200
10	TIM106*025P0X	X	1	6	4	190
10	TIM106*025P0Y	Y	1	6	66	240
12	TIM126*025P0Y	Y	1	6	79	260
15	TIM156*025P0Y	Y	2	6	99	290

CDE may improve your order and shorten delivery by substituting a tighter tolerance or higher voltage capacitors in the same case size.

Type TIM Solid Tantalum Capacitors

Cap (μF)	Catalog Part Number	Case Code	Max DCL @ +25 °C (μA)	Max DF @ +25 °C 120 Hz (%)	Max Ripple 25 °C	
					@ 120 Hz (mA rms)	@ 1 kHz (mA rms)
35 WVdc @ 85 °C						
23 WVdc @ 125 °C						
0.10	TIM104*035P0X	X	1	6	1	9
0.22	TIM224*035P0X	X	1	6	2	17
0.47	TIM474*035P0X	X	1	6	4.3	36
1.00	TIM105*035P0X	X	1	6	9.3	77
2.20	TIM225*035P0W	W	1	4	20	120
2.20	TIM225*035P0X	X	1	6	20	120
2.70	TIM275*035P0W	W	1	4	25	140
3.30	TIM335*035P0X	X	1	6	30	150
3.90	TIM395*035P0Y	Y	1	6	35	180
4.70	TIM475*035P0X	X	1	6	32	155
4.70	TIM475*035P0Y	Y	1	6	43	200
6.80	TIM685*035P0Y	Y	2	6	63	210
8.20	TIM825*035P0Y	Y	5	6	76	220
10.00	TIM106*035P0Y	Y	5	6	93	240
22.00	TIM226*035P0Z	Z	10	6	200	400
27.00	TIM276*035P0Z	Z	10	6	250	450
33.00	TIM336*035P0Z	Z	10	6	300	490
50 WVdc @ 85 °C						
33 WVdc @ 125 °C						
0.10	TIM104*050P0X	X	1	6	1.3	11
0.22	TIM224*050P0X	X	1	6	2.9	24
0.33	TIM334*050P0X	X	1	6	4.4	36
1.0	TIM105*050P0W	W	1	4	13	86
1.0	TIM105*050P0X	X	1	6	13	87
1.5	TIM155*050P0W	W	1	4	19	100
1.5	TIM155*050P0X	X	1	6	19	100
2.2	TIM225*050P0X	X	1	6	29	120
4.7	TIM475*050P0Y	Y	5	6	62	200
5.6	TIM565*050P0Y	Y	5	6	74	220
6.8	TIM685*050P0Z	Z	5	6	90	220
10.0	TIM106*050P0Z	Z	5	6	130	270
15.0	TIM156*050P0Z	Z	10	6	190	330

CDE may improve your order and shorten delivery by substituting a tighter tolerance or higher voltage capacitors in the same case size.

Notice and Disclaimer: All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other 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 any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. 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 Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of 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 or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.