



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Solid Tantalum Surface Mount Capacitors

## TANTAMOUNT<sup>®</sup> Molded Case, High Temperature 150 °C


**FEATURES**

- Operating temperature up to 150 °C with 50 % voltage derating
- AEC-Q200 qualified
- 100 % surge current tested (B, C, D, E case sizes)
- RoHS compliant terminations available: Matte tin (all cases), gold (D/E cases)
- Standard EIA 535BAAC case size (A through E)
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)
- Compliant terminations
- Moisture sensitivity level 1


**RoHS\***  
COMPLIANT

**Note**

\* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

**PERFORMANCE CHARACTERISTICS**
[www.vishay.com/doc?40088](http://www.vishay.com/doc?40088)
**Operating Temperature:** - 55 °C to + 150 °C

**Capacitance Range:** 0.33 μF to 220 μF

**Capacitance Tolerance:** ± 10 %, ± 20 %

**Voltage Rating:** 6.3 V<sub>DC</sub> to 50 V<sub>DC</sub>
**APPLICATIONS**

- Automotive
- Industrial
- High temperature sensors

ORDERING INFORMATION						
TH3	D	106	K	035	C	0700
TYPE	CASE CODE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	TERMINATION AND PACKAGING	ESR
	See Ratings and Case Codes table.	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	K = ± 10 % M = ± 20 %	This is expressed in V. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R". (6R3 = 6.3 V)	A: Gold/7" (178 mm) reels <sup>(1)</sup> B: Gold/13" (330 mm) reels <sup>(1)</sup> C: Matte tin/7" (178 mm) reels D: Matte tin/13" (330 mm) reels E: Tin/lead/7" (178 mm) reels F: Tin/lead/13" (330 mm) reels	Maximum 100 kHz ESR 0500 = 500 mΩ 5000 = 5.0 Ω 10R0 = 10.0 Ω

**Notes**

- We reserve the right to supply higher voltage ratings and tighter capacitance tolerance capacitors in the same case size. Voltage substitutions will be marked with the higher voltage rating.
- (1) Contact factory for availability

DIMENSIONS in inches [millimeters]							
CASE CODE	EIA SIZE	L	W	H	P	Tw	TH (MIN.)
A	3216-18	0.126 ± 0.008 [3.2 ± 0.20]	0.063 ± 0.008 [1.6 ± 0.20]	0.063 ± 0.008 [1.6 ± 0.20]	0.031 ± 0.012 [0.80 ± 0.30]	0.047 ± 0.004 [1.2 ± 0.10]	0.028 [0.70]
B	3528-21	0.138 ± 0.008 [3.5 ± 0.20]	0.110 ± 0.008 [2.8 ± 0.20]	0.075 ± 0.008 [1.9 ± 0.20]	0.031 ± 0.012 [0.80 ± 0.30]	0.087 ± 0.004 [2.2 ± 0.10]	0.028 [0.70]
C	6032-28	0.236 ± 0.012 [6.0 ± 0.30]	0.126 ± 0.012 [3.2 ± 0.30]	0.098 ± 0.012 [2.5 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.087 ± 0.004 [2.2 ± 0.10]	0.039 [1.0]
D	7343-31	0.287 ± 0.012 [7.3 ± 0.30]	0.169 ± 0.012 [4.3 ± 0.30]	0.110 ± 0.012 [2.8 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.094 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]
E	7343-43	0.287 ± 0.012 [7.3 ± 0.30]	0.169 ± 0.012 [4.3 ± 0.30]	0.157 ± 0.012 [4.0 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.094 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]

RATINGS AND CASE CODES							
$\mu\text{F}$	6.3 V	10 V	16 V	20 V	25 V	35 V	50 V
0.33						A (11.0)	
0.47					A (14.0)		
0.68							
1.0			A (6.5)	A (5.9)	A (3.0, 5.2)/ B (0.5)	A (6.6)/B (4.4)	C (3.3)
1.5			A (4.3)			B (4.2)/C (3.3)	
2.2		A (4.6)	A (3.4)/B (3.0)	A (5.9)/B (3.5)	A (5.2)/B (3.0)	B (2.5)/C (2.2)	
3.3				B (2.7)/C (3.7)	B (3.0)/C (2.0)	B (2.5, 3.5)/ C (1.7)	D (1.7)
4.7		A (2.9)/B (2.7)	A (2.9)/B (2.1)	A (5.0)/ B (2.9, 1.9)/ C (1.7)	A (5.0)/B (2.8)/ C (1.6)	B (3.1)/C (1.3)/ D (1.0)	C (1.5)/D (0.9)
6.8		A (2.6)	A (2.6, 2.0)/ B (1.8)/C (1.7)		B (2.4)/C (1.4)	C (1.8)/D (0.9)	D (0.9)
10	A (3.4, 2.7)	A (3.4, 2.0)/ B (1.8)/ C (1.8, 1.7)	B (2.0)/C (1.4)	C (1.1)	C (1.1)/D (0.9)	C (1.6)/ D (0.3, 0.7)	D (0.8)/E (0.5)
15	B (1.8)	A (2.9, 2.0)/ B (2.0, 1.8, 1.5)/ C (1.8, 1.4)	B (2.0)/C (1.0)	B (2.0)/C (1.0)/ D (0.9)	B (1.4, 2.0)/ C (1.2)/D (0.7)	D (0.7)	
22	B (2.0, 1.5)	B (1.5)/ C (1.5, 1.1)	B (1.9)/C (1.0)/ D (0.8)	C (1.0)/D (0.7)	D (0.6)	D (0.3, 0.6)/ E (0.5)	
33	B (1.9, 1.7)	B (1.9, 1.4)/ D (0.8)	C (0.9, 0.6)/ D (0.6)	D (0.6)	D (0.5)		
47	B (1.8)/C (0.8)	B (1.8)/ C (0.8, 0.5)/ D (0.6)	C (0.8, 0.6)/ D (0.6)	D (0.7)/E (0.6)	E (0.6)		
68	B (1.8)	C (1.0, 0.8)/ D (1.0, 0.6, 0.4)	D (0.6)	E (0.6)			
100	E (0.3)	C (0.9, 0.5)/ D (0.6)	D (0.6)/ E (0.6, 0.15)				
150		D (0.6)					
220		E (0.5)					

**Note**

- ESR limits in  $\Omega$  are shown in parenthesis

MARKING																						
	<table border="1"> <thead> <tr> <th colspan="2">"A" CASE VOLTAGE CODE</th> </tr> <tr> <th>VOLTS</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>4.0</td> <td>G</td> </tr> <tr> <td>6.3</td> <td>J</td> </tr> <tr> <td>10</td> <td>A</td> </tr> <tr> <td>16</td> <td>C</td> </tr> <tr> <td>20</td> <td>D</td> </tr> <tr> <td>25</td> <td>E</td> </tr> <tr> <td>35</td> <td>V</td> </tr> <tr> <td>50</td> <td>T</td> </tr> </tbody> </table>		"A" CASE VOLTAGE CODE		VOLTS	CODE	4.0	G	6.3	J	10	A	16	C	20	D	25	E	35	V	50	T
	"A" CASE VOLTAGE CODE																					
VOLTS	CODE																					
4.0	G																					
6.3	J																					
10	A																					
16	C																					
20	D																					
25	E																					
35	V																					
50	T																					
<b>Marking</b> Capacitor marking includes an anode (+) polarity band, capacitance in microfarads and the voltage rating. "A" case capacitors use a letter code for the voltage and EIA capacitance code. The Vishay Sprague® trademark is included if space permits. Capacitors rated at 6.3 V are marked 6 V. A manufacturing date code is marked on all capacitors. Call the factory for further explanation.																						



STANDARD RATINGS							
CAPACITANCE ( $\mu$ F)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C ( $\mu$ A)	MAX. DF AT + 25 °C (%)	MAX. ESR AT + 25 °C 100 kHz ( $\Omega$ )	MAX. RIPPLE 100 kHz $I_{RMS}$ (A)	
<b>6.3 V<sub>DC</sub> AT + 85 °C; 4 V<sub>DC</sub> AT + 125 °C; 3.15 V<sub>DC</sub> AT + 150 °C</b>							
10	A	TH3A106(1)6R3(2)3400	0.6	6	3.40	0.15	
10	A	TH3A106(1)6R3(2)2700	0.6	6	2.70	0.17	
15	B	TH3B156(1)6R3(2)1800	0.9	6	1.80	0.22	
22	B	TH3B226(1)6R3(2)2000	1.3	6	2.00	0.21	
22	B	TH3B226(1)6R3(2)1500	1.3	6	1.50	0.24	
33	B	TH3B336(1)6R3(2)1900	2.0	6	1.90	0.21	
33	B	TH3B336(1)6R3(2)1700	2.0	6	1.70	0.22	
47	B	TH3B476(1)6R3(2)1800	2.8	8	1.80	0.22	
47	C	TH3C476(1)6R3(2)0800	2.8	6	0.80	0.37	
68	B	TH3B686(1)6R3(2)1800	4.1	6	1.80	0.22	
100	E	TH3E107(1)6R3(2)0300	6.0	6	0.30	0.74	
<b>10 V<sub>DC</sub> AT + 85 °C; 7 V<sub>DC</sub> AT + 125 °C; 5 V<sub>DC</sub> AT + 150 °C</b>							
2.2	A	TH3A225(1)010(2)4600	0.5	6	4.60	0.13	
4.7	A	TH3A475(1)010(2)2900	0.5	6	2.90	0.16	
4.7	B	TH3B475(1)010(2)2700	0.5	6	2.70	0.18	
6.8	A	TH3A685(1)010(2)2600	6.8	6	2.60	0.17	
10	A	TH3A106(1)010(2)3400	1.0	6	3.40	0.15	
10	A	TH3A106(1)010(2)2000	1.0	6	2.00	0.19	
10	B	TH3B106(1)010(2)1800	1.0	6	1.80	0.22	
10	C	TH3C106(1)010(2)1800	1.0	6	1.80	0.25	
10	C	TH3C106(1)010(2)1700	1.0	6	1.70	0.25	
15	A	TH3A156(1)010(2)2900	1.0	6	2.90	0.16	
15	A	TH3A156(1)010(2)2000	1.0	6	2.00	0.19	
15	B	TH3B156(1)010(2)2000	1.0	6	2.00	0.21	
15	B	TH3B156(1)010(2)1800	1.0	6	1.80	0.22	
15	B	TH3B156(1)010(2)1500	1.0	6	1.50	0.24	
15	C	TH3C156(1)010(2)1800	1.0	6	1.80	0.25	
15	C	TH3C156(1)010(2)1400	1.0	6	1.40	0.28	
22	B	TH3B226(1)010(2)1500	2.2	6	1.50	0.24	
22	C	TH3C226(1)010(2)1500	2.2	6	1.50	0.27	
22	C	TH3C226(1)010(2)1100	2.2	6	1.10	0.32	
33	B	TH3B336(1)010(2)1900	3.3	6	1.90	0.21	
33	B	TH3B336(1)010(2)1400	3.3	6	1.40	0.25	
33	D	TH3D336(1)010(2)0800	3.3	6	0.80	0.43	
47	B	TH3B476(1)010(2)1800	4.7	6	1.80	0.22	
47	C	TH3C476(1)010(2)0800	4.7	6	0.80	0.37	
47	C	TH3C476(1)010(2)0500	4.7	6	0.50	0.47	
47	D	TH3D476(1)010(2)0600	4.7	6	0.60	0.50	
68	C	TH3C686(1)010(2)1000	6.8	8	1.00	0.33	
68	C	TH3C686(1)010(2)0800	6.8	8	0.80	0.37	
68	D	TH3D686(1)010(2)1000	6.8	6	1.00	0.39	
68	D	TH3D686(1)010(2)0600	6.8	6	0.60	0.50	
68	D	TH3D686(1)010(2)0400	6.8	6	0.40	0.61	
100	C	TH3C107(1)010(2)0900	10.0	6	0.90	0.35	
100	C	TH3C107(1)010(2)0500	10.0	6	0.50	0.47	
100	D	TH3D107(1)010(2)0600	10.0	8	0.60	0.50	
150	D	TH3D157(1)010(2)0600	15.0	8	0.60	0.50	
220	E	TH3E227(1)010(2)0500	22.0	8	0.50	0.61	

**Note**

- Part number definitions:
  - Capacitance tolerance: K, M
  - Termination and packaging: C, D, E, F
  - Termination and packaging: A, B, C, D, E, F



STANDARD RATINGS						
CAPACITANCE ( $\mu$ F)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C ( $\mu$ A)	MAX. DF AT + 25 °C (%)	MAX. ESR AT + 25 °C 100 kHz ( $\Omega$ )	MAX. RIPPLE 100 kHz $I_{RMS}$ (A)
<b>16 V<sub>DC</sub> AT + 85 °C; 10 V<sub>DC</sub> AT + 125 °C; 8 V<sub>DC</sub> AT + 150 °C</b>						
1.0	A	TH3A105(1)016(2)6500	0.5	4	6.50	0.11
2.2	A	TH3A225(1)016(2)4300	0.5	6	4.30	0.13
3.3	A	TH3A335(1)016(2)3400	0.5	6	3.40	0.15
3.3	B	TH3B335(1)016(2)3000	0.5	6	3.00	0.17
4.7	A	TH3A475(1)016(2)2900	0.8	6	2.90	0.16
4.7	B	TH3B475(1)016(2)2100	0.8	6	2.10	0.2
6.8	A	TH3A685(1)016(2)2600	1.1	6	2.60	0.17
6.8	A	TH3A685(1)016(2)2000	1.1	6	2.00	0.19
6.8	B	TH3B685(1)016(2)1800	1.1	6	1.80	0.22
6.8	C	TH3C685(1)016(2)1700	1.1	6	1.70	0.25
10	B	TH3B106(1)016(2)2000	1.6	6	2.00	0.21
10	C	TH3C106(1)016(2)1400	1.6	6	1.40	0.28
15	B	TH3B156(1)016(2)2000	2.4	6	2.00	0.21
15	C	TH3C156(1)016(2)1000	2.4	6	1.00	0.33
22	B	TH3B226(1)016(2)1900	3.5	6	1.90	0.21
22	C	TH3C226(1)016(2)1000	3.5	6	1.00	0.33
22	D	TH3D226(1)016(3)0800	3.5	6	0.80	0.43
33	C	TH3C336(1)016(2)0900	5.3	6	0.90	0.35
33	C	TH3C336(1)016(2)0600	5.3	6	0.60	0.43
33	D	TH3D336(1)016(3)0600	5.3	6	0.60	0.50
47	C	TH3C476(1)016(2)0800	7.5	6	0.80	0.37
47	C	TH3C476(1)016(2)0600	7.5	6	0.60	0.43
47	D	TH3D476(1)016(3)0600	7.5	6	0.60	0.43
68	D	TH3D686(1)016(3)0600	10.9	6	0.60	0.50
100	D	TH3D107(1)016(3)0600	16.0	8	0.60	0.50
100	E	TH3E107(1)016(3)0600	16.0	8	0.60	0.56
100	E	TH3E107(1)016(3)0150	16.0	8	0.15	1.11
<b>20 V<sub>DC</sub> AT + 85 °C; 13 V<sub>DC</sub> AT + 125 °C; 10 V<sub>DC</sub> AT + 150 °C</b>						
1.0	A	TH3A105(1)020(2)5900	0.5	4	5.90	0.11
2.2	A	TH3A225(1)020(2)5900	0.5	6	5.90	0.11
2.2	B	TH3B225(1)020(2)3500	0.5	6	3.50	0.16
3.3	B	TH3B335(1)020(2)2700	0.7	6	2.70	0.18
3.3	C	TH3C335(1)020(2)2700	0.7	6	2.70	0.20
4.7	A	TH3A475(1)020(2)5000	0.9	6	5.00	0.12
4.7	B	TH3B475(1)020(2)1900	0.9	6	2.90	0.17
4.7	B	TH3B475(1)020(2)2900	0.9	6	1.90	0.21
4.7	C	TH3C475(1)020(2)1700	0.9	6	1.70	0.25
10	C	TH3C106(1)020(2)1100	2.0	6	1.10	0.32
15	B	TH3B156(1)020(2)2000	3.0	6	2.00	0.21
15	C	TH3C156(1)020(2)1000	3.0	6	1.00	0.33
15	D	TH3D156(1)020(2)0900	3.0	6	0.90	0.41
22	C	TH3C226(1)020(2)1000	4.4	6	1.00	0.33
22	D	TH3D226(1)020(2)0700	4.4	6	0.70	0.46
33	D	TH3D336(1)020(2)0600	6.6	6	0.60	0.5
47	D	TH3D476(1)020(2)0700	9.4	6	0.70	0.46
47	E	TH3E476(1)020(2)0600	9.4	8	0.60	0.56
68	E	TH3E686(1)020(2)0600	13.6	8	0.60	0.56

**Note**

- Part number definitions:
  - Capacitance tolerance: K, M
  - Termination and packaging: C, D, E, F
  - Termination and packaging: A, B, C, D, E, F

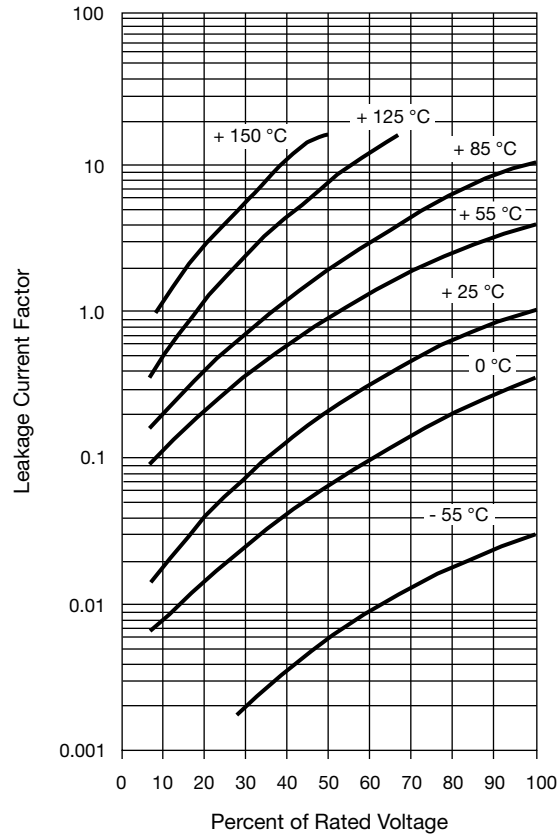


STANDARD RATINGS							
CAPACITANCE ( $\mu$ F)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C ( $\mu$ A)	MAX. DF AT + 25 °C (%)	MAX. ESR AT + 25 °C 100 kHz ( $\Omega$ )	MAX. RIPPLE 100 kHz $I_{RMS}$ (A)	
<b>25 V<sub>DC</sub> AT + 85 °C; 17 V<sub>DC</sub> AT + 125 °C; 12.5 V<sub>DC</sub> AT + 150 °C</b>							
0.47	A	TH3A474(1)025(2)14R0	0.5	4	14.00	0.073	
1.0	A	TH3A105(1)025(2)5200	0.5	4	5.20	0.12	
1.0	A	TH3A105(1)025(2)3000	0.5	4	3.00	0.16	
1.0	B	TH3B105(1)025(2)5000	0.5	4	5.00	0.13	
2.2	A	TH3A225(1)025(2)5200	0.6	6	5.20	0.12	
2.2	B	TH3B225(1)025(2)3000	0.6	6	3.00	0.17	
3.3	B	TH3B335(1)025(2)3000	0.8	6	3.00	0.17	
3.3	C	TH3C335(1)025(2)2000	0.8	6	2.00	0.23	
4.7	A	TH3A475(1)025(2)5000	1.2	6	5.00	0.12	
4.7	B	TH3B475(1)025(2)2800	1.2	6	2.80	0.17	
4.7	C	TH3C475(1)025(2)1600	1.2	6	1.60	0.26	
6.8	B	TH3B685(1)025(2)2400	1.7	6	2.40	0.19	
6.8	C	TH3C685(1)025(2)1400	1.7	6	1.40	0.28	
10	C	TH3C106(1)025(2)1100	2.5	6	1.10	0.32	
10	D	TH3D106(1)025(2)0900	2.5	6	0.90	0.41	
15	B	TH3B156(1)025(2)2000	3.8	6	2.00	0.21	
15	B	TH3B156(1)025(2)1400	3.8	6	1.40	0.25	
15	C	TH3C156(1)025(2)1200	3.8	6	1.20	0.30	
15	D	TH3D156(1)025(2)0700	3.8	6	0.70	0.46	
22	D	TH3D226(1)025(2)0600	5.5	6	0.60	0.50	
33	D	TH3D336(1)025(2)0500	8.3	6	0.50	0.55	
47	E	TH3E476(1)025(2)0600	11.8	6	0.60	0.56	
<b>35 V<sub>DC</sub> AT + 85 °C; 23 V<sub>DC</sub> AT + 125 °C; 17.5 V<sub>DC</sub> AT + 150 °C</b>							
0.33	A	TH3A334(1)035(2)11R0	0.5	4	11.00	0.08	
1.0	A	TH3A105(1)035(2)6600	0.5	4	6.60	0.11	
1.0	B	TH3B105(1)035(2)4400	0.5	4	4.40	0.14	
1.5	B	TH3B155(1)035(2)4200	0.5	6	4.20	0.14	
1.5	C	TH3C155(1)035(2)3300	0.5	6	3.30	0.18	
2.2	B	TH3B225(1)035(2)2500	0.8	6	2.50	0.18	
2.2	C	TH3C225(1)035(2)2200	0.8	6	2.20	0.22	
3.3	B	TH3B335(1)035(2)3500	1.2	6	3.50	0.16	
3.3	B	TH3B335(1)035(2)2500	1.2	6	2.50	0.18	
3.3	C	TH3C335(1)035(2)1700	1.2	6	1.70	0.25	
4.7	B	TH3B475(1)035(2)3100	1.7	6	3.10	0.17	
4.7	C	TH3C475(1)035(2)1300	1.6	6	1.30	0.29	
4.7	D	TH3D475(1)035(2)1000	1.6	6	1.00	0.39	
6.8	C	TH3C685(1)035(2)1800	2.4	6	1.80	0.25	
6.8	D	TH3D685(1)035(2)0900	2.4	6	0.90	0.41	
10	C	TH3C106(1)035(2)1600	3.5	6	1.60	0.26	
10	D	TH3D106(1)035(2)0700	3.5	6	0.70	0.46	
10	D	TH3D106(1)035(2)0300	3.5	6	0.30	0.71	
15	D	TH3D156(1)035(2)0700	5.3	6	0.70	0.46	
22	D	TH3D226(1)035(2)0600	7.7	6	0.60	0.50	
22	D	TH3D226(1)035(2)0300	7.7	6	0.30	0.71	
22	E	TH3E226(1)035(2)0500	7.7	6	0.50	0.61	
<b>50 V<sub>DC</sub> AT + 85 °C; 33 V<sub>DC</sub> AT + 125 °C; 25 V<sub>DC</sub> AT + 150 °C</b>							
1.0	C	TH3C105(1)050(2)3300	0.5	4	3.30	0.18	
3.3	D	TH3D335(1)050(2)1700	1.7	6	1.70	0.30	
4.7	C	TH3C475(1)050(2)1500	2.4	6	1.50	0.27	
4.7	D	TH3D475(1)050(2)0900	2.4	6	0.90	0.41	
6.8	D	TH3D685(1)050(2)0900	3.4	6	0.90	0.41	
10	D	TH3D106(1)050(2)0800	5.0	6	0.80	0.43	
10	E	TH3E106(1)050(2)0500	5.0	6	0.50	0.61	

**Note**

- Part number definitions:
  - (1) Capacitance tolerance: K, M
  - (2) Termination and packaging: C, D, E, F
  - (3) Termination and packaging: A, B, C, D, E, F

**TYPICAL LEAKAGE CURRENT FACTOR**



**Note**

- At + 25 °C, the leakage current shall not exceed the value listed in the Standard Ratings table.
- At + 85 °C, the leakage current shall not exceed 10 times the value listed in the Standard Ratings table.
- At + 125 °C, the leakage current shall not exceed 12 times the value listed in the Standard Ratings table.
- At + 150 °C, the leakage current shall not exceed 15 times the value listed in the Standard Ratings table.

**RECOMMENDED VOLTAGE DERATING GUIDELINES** (for temperatures below + 85 °C)

**STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS**

Capacitor Voltage Rating	Operating Voltage
6.3	3.6
10	6.0
16	10
20	12
25	15
35	24
50	28

**SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS**

Capacitor Voltage Rating	Operating Voltage
6.3	3.3
10	5.0
16	8.0
20	10
25	12
35	15
50	24



POWER DISSIPATION	
CASE CODE	MAXIMUM PERMISSIBLE POWER DISSIPATION AT + 25 °C (W) IN FREE AIR
A	0.075
B	0.085
C	0.110
D	0.150
E	0.165

STANDARD PACKAGING QUANTITY		
CASE CODE	UNITS PER REEL	
	7" REEL	13" REEL
A	2000	9000
B	2000	8000
C	500	3000
D	500	2500
E	400	1500

PRODUCT INFORMATION	
Guide for Molded Tantalum Capacitors	<a href="http://www.vishay.com/doc?40074">www.vishay.com/doc?40074</a>
Pad Dimensions	
Package Dimensions	
Moisture Sensitivity	<a href="http://www.vishay.com/doc?40135">www.vishay.com/doc?40135</a>
SELECTOR GUIDES	
Solid Tantalum Selector Guide	<a href="http://www.vishay.com/doc?49053">www.vishay.com/doc?49053</a>
Solid Tantalum Chip Capacitors	<a href="http://www.vishay.com/doc?40091">www.vishay.com/doc?40091</a>
FAQ	
Frequently Asked Questions	<a href="http://www.vishay.com/doc?40110">www.vishay.com/doc?40110</a>





## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

## Material Category Policy

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.**

**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.**