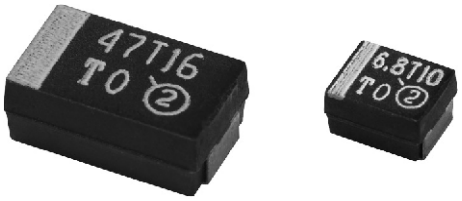
Solid Tantalum Surface Mount Chip Capacitors
TANTAMOUNT®, Molded Case, Hi-Rel COTS



FEATURES

- Standard and low ESR options
- Weibull grading and surge current test options
- Terminations: 100 % matte tin and tin/lead
- Standard EIA 535BAAC case sizes (A through E)
- Moisture sensitivity level 1
- Compliant terminations
- High reliability
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available

RoHS* COMPLIANT

Note

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

PERFORMANCE/ELECTRICAL CHARACTERISTICS

www.vishay.com/doc?40088

Operating Temperature: - 55 °C to + 125 °C (above 85 °C, voltage derating is required)

Capacitance Range: 0.1 µF to 470 µF

Capacitance Tolerance: ± 10 %, ± 20 %

Voltage Rating: 4 V_{DC} to 63 V_{DC}

APPLICATIONS

- Industrial
- Medical
- Military/aerospace
- Telecom

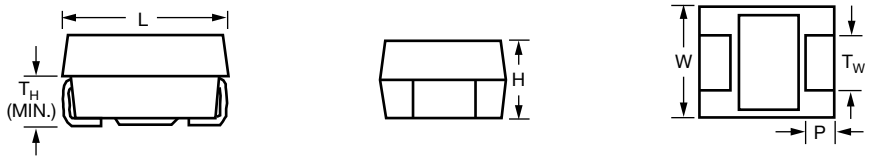
ORDERING INFORMATION

T83	D	107	K	010	E	A	A	S
TYPE	CASE CODE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	TERMINATION AND PACKAGING	RELIABILITY LEVEL	SURGE CURRENT	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 % J = ± 5 % (special order)	This is expressed in volts. To complete the three-digit block, zeros precede the voltage rating. A decimal point is indicated by an "R" (6R3 = 6.3 V).	See table Termination and Packaging Codes	A = 1.0 % B = 0.1 % C = 0.01 % S = Hi-Rel standard Z = Non-ER	A = 10 cycles at + 25 °C B = 10 cycles at - 55 °C/+ 85 °C C = 10 cycles at - 55 °C/+ 85 °C (before Weibull grading) Z = None S = 3 cycles at + 25 °C	S = Std L = Low

TERMINATION AND PACKAGING CODES

CODE	TERMINATION	PACKAGING
C	Matte tin	7" (178 mm) reels
H	Matte tin	7" (178 mm) reels, ½ reel
U	Matte tin	7" (178 mm) reels, partial reel
E	Solder plated, tin/lead	7" (178 mm) reels
L	Solder plated, tin/lead	7" (178 mm) reels, ½ reel
R	Solder plated, tin/lead	7" (178 mm) reels, partial reel
K	Solder fused, tin/lead	7" (178 mm) reels
M	Solder fused, tin/lead	7" (178 mm) reels, ½ reel
N	Solder fused, tin/lead	7" (178 mm) reels, partial reel

DIMENSIONS in inches (millimeters)

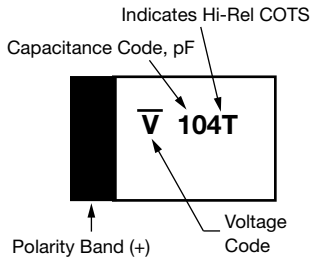


CASE CODE	EIA SIZE	L	W	H	P	T_W	T_H (MIN.)
A	3216-18	0.126 ± 0.008 [3.2 ± 0.20]	0.063 ± 0.008 [1.6 ± 0.20]	0.063 ± 0.008 [1.6 ± 0.20]	0.031 ± 0.012 [0.80 ± 0.30]	0.047 ± 0.004 [1.2 ± 0.10]	0.028 [0.70]
B	3528-21	0.138 ± 0.008 [3.5 ± 0.20]	0.110 ± 0.008 [2.8 ± 0.20]	0.075 ± 0.008 [1.9 ± 0.20]	0.031 ± 0.012 [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

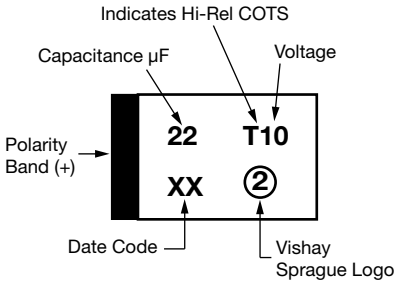
µF	4 V	6.3 V	10 V	16 V	20 V	25 V	35 V	50 V	63 V
0.10							A	A	
0.15							A	A/B	
0.22							A	B	
0.33						A	A	B	
0.47					A	A	A/B	B/C	
0.68				A	A	B	B	C	
1.0			A	A	A	A/B	A/B	B/C	
1.5		A	A	A	B	B	B/C	C/D	
2.2	A	A		B	A/B	A/B/C	B/C	C/D	
3.3	A	A	B	B	B	B/C	B/C	D	
4.7	A	A/B	A/B	A/B	A/B/C	B/C	C/D	D	D
6.8	B	B	B	C	C	C/D	C/D	E	
10	B	B	A/C	A/B/C	B/C	B/C/D	C/D	E	E
15	B	C	A/C	B	D	C/D	D	E	
22		A/C	A	B/C/D	C/D	D	D/E		
33	A/C	B/C	B/C/D	B/C/D	D	D/E			
47	B/C	B/C/D	B/C/D	C/D	D/E	D/E			
68	D	D	D	D	D/E				
100	B/D	B/D	C/D	D/E	E				
150	D	D/E	D	E					
220		C/D/E	D/E						
330	E	E	E						
470			E						

MARKING



A Case

"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, C, D, E Cases

Marking
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 (µF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (µA)	MAX. DF AT + 25 °C 120 Hz (%)	STD. (S) MAX. ESR AT + 25 °C 100 kHz (Ω)	LOW (L) MAX. ESR AT + 25 °C 100 kHz (Ω)	AVAILABLE RELIABILITY LEVELS
4 V_{DC} AT + 85 °C; 2.7 V_{DC} AT + 125 °C							
2.2	A	T83A225(1)004(2)(6)(4)(5)	0.50	6	7.600	6.000	A, B, C, S, Z
3.3	A	T83A335(1)004(2)(3)(4)(5)	0.50	6	7.600	4.000	A, B, S, Z
4.7	A	T83A475(1)004(2)(6)(4)(5)	0.50	6	6.300	3.500	A, B, C, S, Z
6.8	B	T83B685(1)004(2)(6)(4)(5)	0.50	6	4.500	2.000	A, B, C, S, Z
10	B	T83B106(1)004(2)(6)(4)(5)	0.50	6	3.500	1.200	A, B, C, S, Z
15	B	T83B156(1)004(2)(6)(4)(5)	0.60	6	2.900	1.200	A, B, C, S, Z
33	A	T83A336(1)004(2)(3)(4)(5)	1.3	6	2.900	1.500	A, B, S, Z
33	C	T83C336(1)004(2)(6)(4)(5)	1.3	6	1.800	0.500	A, B, C, S, Z
47	B	T83B476(1)004(2)(3)(4)(5)	1.9	6	2.500	0.600	A, B, S, Z
47	C	T83C476(1)004(2)(3)(4)(5)	1.9	6	1.800	0.400	A, B, S, Z
68	D	T83D686(1)004(2)(6)(4)(5)	2.7	6	0.800	0.175	A, B, C, S, Z
100	B	T83B107(1)004(2)(3)(4)(5)	4.0	6	1.800	0.450	A, B, S, Z
100	D	T83D107(1)004(2)(6)(4)(5)	4.0	6	0.700	0.175	A, B, C, S, Z
150	D	T83D157(1)004(2)(3)(4)(5)	6.0	8	0.600	0.150	A, B, S, Z
330	E	T83E337(1)004(2)(3)(4)(5)	13.2	8	0.500	0.100	A, B, S, Z
6 V_{DC} AT + 85 °C; 4 V_{DC} AT + 125 °C							
1.5	A	T83A155(1)6R3(2)(6)(4)(5)	0.50	6	8.000	6.000	A, B, C, S, Z
2.2	A	T83A225(1)6R3(2)(6)(4)(5)	0.50	6	7.600	6.000	A, B, C, S, Z
3.3	A	T83A335(1)6R3(2)(6)(4)(5)	0.50	6	6.300	5.000	A, B, C, S, Z
4.7	A	T83A475(1)6R3(2)(3)(4)(5)	0.50	6	5.500	3.500	A, B, S, Z
4.7	B	T83B475(1)6R3(2)(6)(4)(5)	0.50	6	3.400	1.800	A, B, C, S, Z
6.8	B	T83B685(1)6R3(2)(6)(4)(5)	0.50	6	3.400	1.200	A, B, C, S, Z

Note
- Part number definitions:
  (1) Capacitance tolerance: K, M
  (2) Termination and packaging: C, E, K, H, L, M, U, R, N
  (3) Reliability level: A, B, S, Z
  (4) Surge current: A, B, C, Z, S
  (5) ESR: L, S
  (6) Reliability level: A, B, C, S, Z
  (7) Reliability level: A, S, Z

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (µA)	MAX. DF AT + 25 °C 120 Hz (%)	STD. (S) MAX. ESR AT + 25 °C 100 kHz (Ω)	LOW (L) MAX. ESR AT + 25 °C 100 kHz (Ω)	AVAILABLE RELIABILITY LEVELS
6 V_{DC} AT + 85 °C; 4 V_{DC} AT + 125 °C							
10	B	T83B106(1)6R3(2)(6)(4)(5)	0.60	6	2.900	1.000	A, B, C, S, Z
15	C	T83C156(1)6R3(2)(6)(4)(5)	0.90	6	1.800	0.600	A, B, C, S, Z
22	A	T83A226(1)6R3(2)(3)(4)(5)	1.3	6	2.900	2.000	A, B, S, Z
22	C	T83C226(1)6R3(2)(6)(4)(5)	1.3	6	1.800	0.500	A, B, C, S, Z
33	B	T83B336(1)6R3(2)(3)(4)(5)	2.0	6	1.900	0.600	A, B, S, Z
33	C	T83C336(1)6R3(2)(3)(4)(5)	2.0	6	1.500	0.400	A, B, S, Z
47	B	T83B476(1)6R3(2)(3)(4)(5)	2.8	6	1.900	0.550	A, B, S, Z
47	C	T83C476(1)6R3(2)(3)(4)(5)	2.8	6	1.400	0.300	A, B, S, Z
47	D	T83D476(1)6R3(2)(6)(4)(5)	2.8	6	0.800	0.200	A, B, C, S, Z
68	D	T83D686(1)6R3(2)(6)(4)(5)	4.1	6	0.700	0.200	A, B, C, S, Z
100	B	T83B107(1)6R3(2)(3)(4)(5)	6.0	15	1.700	0.500	A, B, S, Z
100	D	T83D107(1)6R3(2)(3)(4)(5)	6.0	6	0.700	0.140	A, B, S, Z
150	D	T83D157(1)6R3(2)(3)(4)(5)	9.0	8	0.600	0.125	A, B, S, Z
150	E	T83E157(1)6R3(2)(3)(4)(5)	9.0	8	0.500	0.100	A, B, S, Z
220	C	T83C227(1)6R3(2)(3)(4)(5)	13.2	14	0.700	0.300	A, B, S, Z
220	D	T83D227(1)6R3(2)(3)(4)(5)	13.2	8	0.600	0.100	A, B, S, Z
220	E	T83E227(1)6R3(2)(3)(4)(5)	13.2	8	0.500	0.100	A, B, S, Z
330	E	T83E337(1)6R3(2)(3)(4)(5)	19.8	8	0.500	0.100	A, B, S, Z
10 V_{DC} AT + 85 °C; 7 V_{DC} AT + 125 °C							
1.0	A	T83A105(1)010(2)(6)(4)(5)	0.50	4	9.300	6.000	A, B, C, S, Z
1.5	A	T83A155(1)010(2)(6)(4)(5)	0.50	6	8.000	6.000	A, B, C, S, Z
3.3	B	T83B335(1)010(2)(6)(4)(5)	0.50	6	3.500	2.500	A, B, C, S, Z
4.7	A	T83A475(1)010(2)(3)(4)(5)	0.50	6	5.000	3.000	A, B, S, Z
4.7	B	T83B475(1)010(2)(6)(4)(5)	0.50	6	3.400	1.500	A, B, C, S, Z
6.8	B	T83B685(1)010(2)(6)(4)(5)	0.70	6	2.900	1.200	A, B, C, S, Z
10	A	T83A106(1)010(2)(3)(4)(5)	1.0	6	3.400	1.800	A, B, C, S, Z
10	C	T83C106(1)010(2)(3)(4)(5)	1.0	6	1.800	0.550	A, B, S, Z
15	A	T83A156(1)010(2)(3)(4)(5)	1.5	6	2.900	2.000	A, B, S, Z
15	C	T83C156(1)010(2)(6)(4)(5)	1.5	6	1.800	0.500	A, B, C, S, Z
22	A	T83A226(1)010(2)(3)(4)(5)	2.2	8	2.500	1.500	A, B, S, Z
33	B	T83B336(1)010(2)(3)(4)(5)	3.3	6	1.900	0.600	A, B, S, Z
33	C	T83C336(1)010(2)(3)(4)(5)	3.3	6	1.400	0.350	A, B, S, Z
33	D	T83D336(1)010(2)(6)(4)(5)	3.3	6	0.800	0.250	A, B, S, Z
47	B	T83B476(1)010(2)(3)(4)(5)	4.7	6	1.800	0.600	A, B, S, Z
47	C	T83C476(1)010(2)(3)(4)(5)	4.7	6	1.100	0.300	A, B, S, Z
47	D	T83D476(1)010(2)(6)(4)(5)	4.7	6	0.700	0.200	A, B, C, S, Z
68	D	T83D686(1)010(2)(3)(4)(5)	6.8	6	0.700	0.150	A, B, S, Z
100	C	T83C107(1)010(2)(6)(4)(5)	10.0	8	0.900	0.200	A, B, C, S, Z
100	D	T83D107(1)010(2)(6)(4)(5)	10.0	8	0.600	0.100	A, B, C, S, Z
150	D	T83D157(1)010(2)(3)(4)(5)	15.0	8	0.600	0.100	A, B, S, Z
220	D	T83D227(1)010(2)(6)(4)(5)	22.0	8	0.600	0.360	A, B, C, S, Z
220	E	T83E227(1)010(2)(3)(4)(5)	22.0	8	0.500	0.100	A, B, C, S, Z
330	E	T83E337(1)010(2)(3)(4)(5)	33.0	10	0.500	0.100	A, B, S, Z
470	E	T83E477(1)010(2)(3)(4)(5)	47.0	15	0.500	0.100	A, B, S, Z

Note

- Part number definitions:
  (1) Capacitance tolerance: K, M
  (2) Termination and packaging: C, E, K, H, L, M, U, R, N
  (3) Reliability level: A, B, S, Z
  (4) Surge current: A, B, C, Z, S
  (5) ESR: L, S
  (6) Reliability level: A, B, C, S, Z
  (7) Reliability level: A, S, Z

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (µA)	MAX. DF AT + 25 °C 120 Hz (%)	STD. (S) MAX. ESR AT + 25 °C 100 kHz (Ω)	LOW (L) MAX. ESR AT + 25 °C 100 kHz (Ω)	AVAILABLE RELIABILITY LEVELS
16 V_{DC} AT + 85 °C; 10 V_{DC} AT + 125 °C							
0.68	A	T83A684(1)016(2)(3)(4)(5)	0.50	4	11.000	8.000	A, B, S, Z
1.0	A	T83A105(1)016(2)(3)(4)(5)	0.50	4	9.300	6.000	A, B, S, Z
1.5	A	T83A155(1)016(2)(3)(4)(5)	0.50	6	6.700	6.000	A, B, S, Z
2.2	B	T83B225(1)016(2)(3)(4)(5)	0.50	6	4.600	2.500	A, B, S, Z
3.3	B	T83B335(1)016(2)(3)(4)(5)	0.50	6	3.500	2.000	A, B, S, Z
4.7	A	T83A475(1)016(2)(3)(4)(5)	0.80	6	5.000	2.500	A, B, S, Z
4.7	B	T83B475(1)016(2)(3)(4)(5)	0.80	6	2.900	1.500	A, B, S, Z
6.8	C	T83C685(1)016(2)(3)(4)(5)	1.1	6	1.900	0.600	A, B, S, Z
10	A	T83A106(1)016(2)(6)(4)(5)	1.6	6	3.000	1.700	A, B, C, S, Z
10	B	T83B106(1)016(2)(3)(4)(5)	1.6	6	2.800	0.500	A, B, C, S, Z
10	C	T83C106(1)016(2)(3)(4)(5)	1.6	6	1.800	0.450	A, B, S, Z
15	B	T83B156(1)016(2)(6)(4)(5)	2.4	6	2.000	0.800	A, B, C, S, Z
22	B	T83B226(1)016(2)(6)(4)(5)	3.5	6	1.900	1.000	A, B, C, S, Z
22	C	T83C226(1)016(2)(6)(4)(5)	3.5	6	1.100	0.375	A, B, C, S, Z
22	D	T83D226(1)016(2)(3)(4)(5)	3.5	6	0.800	0.250	A, B, S, Z
33	B	T83B336(1)016(2)(3)(4)(5)	5.3	6	1.800	0.500	A, B, S, Z
33	C	T83C336(1)016(2)(3)(4)(5)	5.3	6	1.100	0.300	A, B, S, Z
33	D	T83D336(1)016(2)(3)(4)(5)	5.3	6	0.700	0.225	A, B, S, Z
47	C	T83C476(1)016(2)(3)(4)(5)	7.5	6	1.000	0.300	A, B, S, Z
47	D	T83D476(1)016(2)(6)(4)(5)	7.5	6	0.700	0.150	A, B, C, S, Z
68	D	T83D686(1)016(2)(3)(4)(5)	10.9	6	0.600	0.150	A, B, S, Z
100	D	T83D107(1)016(2)(6)(4)(5)	16.0	8	0.600	0.125	A, B, C, S, Z
100	E	T83E107(1)016(2)(3)(4)(5)	16.0	8	0.600	0.100	A, B, C, S, Z
150	E	T83E157(1)016(2)(3)(4)(5)	24.0	8	0.500	0.150	A, B, S, Z
20 V_{DC} AT + 85 °C; 13 V_{DC} AT + 125 °C							
0.47	A	T83A474(1)020(2)(3)(4)(5)	0.50	4	12.000	9.000	A, B, S, Z
0.68	A	T83A684(1)020(2)(6)(4)(5)	0.50	4	10.000	8.000	A, B, C, S, Z
1.0	A	T83A105(1)020(2)(6)(4)(5)	0.50	4	8.400	5.500	A, B, C, S, Z
1.5	B	T83B155(1)020(2)(3)(4)(5)	0.50	6	4.600	2.500	A, B, S, Z
2.2	A	T83A225(1)020(2)(3)(4)(5)	0.50	6	5.900	4.000	A, B, S, Z
2.2	B	T83B225(1)020(2)(6)(4)(5)	0.50	6	3.500	1.500	A, B, C, S, Z
3.3	B	T83B335(1)020(2)(6)(4)(5)	0.70	6	3.000	1.300	A, B, C, S, Z
4.7	A	T83A475(1)020(2)(3)(4)(5)	0.90	6	5.000	3.500	A, B, S, Z
4.7	B	T83B475(1)020(2)(3)(4)(5)	0.90	6	2.900	1.000	A, B, S, Z
4.7	C	T83C475(1)020(2)(3)(4)(5)	0.90	6	2.300	0.600	A, B, S, Z
6.8	C	T83C685(1)020(2)(6)(4)(5)	1.4	6	1.900	0.550	A, B, C, S, Z
10	B	T83B106(1)020(2)(3)(4)(5)	2.0	6	2.500	1.000	A, B, S, Z
10	C	T83C106(1)020(2)(3)(4)(5)	2.0	6	1.700	0.450	A, B, S, Z
15	D	T83D156(1)020(2)(6)(4)(5)	3.0	6	0.900	0.300	A, B, C, S, Z
22	C	T83C226(1)020(2)(6)(4)(5)	4.4	6	1.100	0.375	A, B, C, S, Z
22	D	T83D226(1)020(2)(6)(4)(5)	4.4	6	0.700	0.225	A, B, C, S, Z
33	D	T83D336(1)020(2)(3)(4)(5)	6.6	6	0.700	0.200	A, B, S, Z
47	D	T83D476(1)020(2)(3)(4)(5)	9.4	6	0.700	0.200	A, B, S, Z
47	E	T83E476(1)020(2)(3)(4)(5)	9.4	6	0.600	0.150	A, B, S, Z
68	D	T83D686(1)020(2)(3)(4)(5)	13.6	6	0.700	0.175	A, B, S, Z
68	E	T83E686(1)020(2)(6)(4)(5)	13.6	6	0.600	0.150	A, B, C, S, Z
100	E	T83E107(1)020(2)(3)(4)(5)	20.0	8	0.500	0.150	A, B, S, Z

Note

- Part number definitions:
  (1) Capacitance tolerance: K, M
  (2) Termination and packaging: C, E, K, H, L, M, U, R, N
  (3) Reliability level: A, B, S, Z
  (4) Surge current: A, B, C, Z, S
  (5) ESR: L, S
  (6) Reliability level: A, B, C, S, Z
  (7) Reliability level: A, S, Z

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (µA)	MAX. DF AT + 25 °C 120 Hz (%)	STD. (S) MAX. ESR AT + 25 °C 100 kHz (Ω)	LOW (L) MAX. ESR AT + 25 °C 100 kHz (Ω)	AVAILABLE RELIABILITY LEVELS
25 V_{DC} AT + 85 °C; 17 V_{DC} AT + 125 °C							
0.33	A	T83A334(1)025(2)(6)(4)(5)	0.50	4	14.000	10.000	A, B, C,S, Z
0.47	A	T83A474(1)025(2)(3)(4)(5)	0.50	4	12.000	9.000	A, B, S, Z
0.68	B	T83B684(1)025(2)(3)(4)(5)	0.50	4	7.000	5.000	A, B, S, Z
1.0	A	T83A105(1)025(2)(6)(4)(5)	0.50	4	7.600	4.000	A, B, C, S, Z
1.0	B	T83B105(1)025(2)(6)(4)(5)	0.50	4	5.000	2.000	A, B, C, S, Z
1.5	B	T83B155(1)025(2)(6)(4)(5)	0.50	6	4.600	2.000	A, B, C, S, Z
2.2	A	T83A225(1)025(2)(3)(4)(5)	0.60	6	6.300	4.000	A, B, S, Z
2.2	B	T83B225(1)025(2)(3)(4)(5)	0.60	6	3.800	2.300	A, B, S, Z
2.2	C	T83C225(1)025(2)(6)(4)(5)	0.60	6	2.900	1.000	A, B, C, S, Z
3.3	B	T83B335(1)025(2)(3)(4)(5)	0.80	6	3.100	1.500	A, B, S, Z
3.3	C	T83C335(1)025(2)(3)(4)(5)	0.80	6	2.300	1.000	A, B, S, Z
4.7	B	T83B475(1)025(2)(3)(4)(5)	1.2	6	2.800	1.500	A, B, S, Z
4.7	C	T83C475(1)025(2)(6)(4)(5)	1.2	6	2.000	0.525	A, B, C, S, Z
6.8	C	T83C685(1)025(2)(3)(4)(5)	1.7	6	1.700	0.500	A, B, S, Z
6.8	D	T83D685(1)025(2)(6)(4)(5)	1.7	6	1.200	0.350	A, B, C, S, Z
10	B	T83B106(1)025(2)(3)(4)(5)	2.5	6	2.300	1.300	A, B, S, Z
10	C	T83C106(1)025(2)(6)(4)(5)	2.5	6	1.500	0.350	A, B, C, S, Z
10	D	T83D106(1)025(2)(6)(4)(5)	2.5	6	1.000	0.300	A, B, C, S, Z
15	C	T83C156(1)025(2)(3)(4)(5)	3.8	6	1.200	0.425	A, B, S, Z
15	D	T83D156(1)025(2)(6)(4)(5)	3.8	6	0.800	0.250	A, B, C, S, Z
22	D	T83D226(1)025(2)(6)(4)(5)	5.5	6	0.700	0.200	A, B, C, S, Z
33	D	T83D336(1)025(2)(6)(4)(5)	8.3	6	0.700	0.300	A, B, C, S, Z
33	E	T83E336(1)025(2)(3)(4)(5)	8.3	6	0.600	0.200	A, B, S, Z
47	D	T83D476(1)025(2)(6)(4)(5)	11.8	8	0.700	0.175	A, B, C, S, Z
47	E	T83E476(1)025(2)(3)(4)(5)	11.8	6	0.600	0.300	A, B, S, Z
35 V_{DC} AT + 85 °C; 23 V_{DC} AT + 125 °C							
0.10	A	T83A104(1)035(2)(6)(4)(5)	0.50	4	20.000	10.000	A, B, C, S, Z
0.15	A	T83A154(1)035(2)(6)(4)(5)	0.50	4	18.000	6.000	A, B, C, S, Z
0.22	A	T83A224(1)035(2)(6)(4)(5)	0.50	4	15.000	6.000	A, B, C, S, Z
0.33	A	T83A334(1)035(2)(6)(4)(5)	0.50	4	13.000	6.000	A, B, C, S, Z
0.47	A	T83A474(1)035(2)(3)(4)(5)	0.50	4	10.000	4.000	A, B, S, Z
0.47	B	T83B474(1)035(2)(6)(4)(5)	0.50	4	8.000	2.500	A, B, C, S, Z
0.68	B	T83B684(1)035(2)(6)(4)(5)	0.50	4	6.500	2.500	A, B, C, S, Z
1.0	A	T83A105(1)035(2)(3)(4)(5)	0.50	4	7.500	6.000	A, B, S, Z
1.0	B	T83B105(1)035(2)(6)(4)(5)	0.50	4	5.000	2.000	A, B, C, S, Z
1.5	B	T83B155(1)035(2)(3)(4)(5)	0.50	6	4.200	2.000	A, B, S, Z
1.5	C	T83C155(1)035(2)(3)(4)(5)	0.50	6	3.800	1.500	A, B, S, Z
2.2	B	T83B225(1)035(2)(3)(4)(5)	0.80	6	3.800	2.300	A, B, S, Z
2.2	C	T83C225(1)035(2)(6)(4)(5)	0.80	6	2.900	0.900	A, B, C, S, Z

Note

- Part number definitions:
  (1) Capacitance tolerance: K, M
  (2) Termination and packaging: C, E, K, H, L, M, U, R, N
  (3) Reliability level: A, B, S, Z
  (4) Surge current: A, B, C, Z, S
  (5) ESR: L, S
  (6) Reliability level: A, B, C, S, Z
  (7) Reliability level: A, S, Z

STANDARD RATINGS

CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (µA)	MAX. DF AT + 25 °C 120 Hz (%)	STD. (S) MAX. ESR AT + 25 °C 100 kHz (Ω)	LOW (L) MAX. ESR AT + 25 °C 100 kHz (Ω)	AVAILABLE RELIABILITY LEVELS
35 V_{DC} AT + 85 °C; 23 V_{DC} AT + 125 °C							
3.3	B	T83B335(1)035(2)(3)(4)(5)	1.2	6	3.500	1.500	A, B, S, Z
3.3	C	T83C335(1)035(2)(6)(4)(5)	1.2	6	2.100	0.700	A, B, C, S, Z
4.7	C	T83C475(1)035(2)(6)(4)(5)	1.6	6	1.900	0.600	A, B, C, S, Z
4.7	D	T83D475(1)035(2)(3)(4)(5)	1.6	6	1.300	0.600	A, B, S, Z
6.8	C	T83C685(1)035(2)(3)(4)(5)	2.4	6	1.800	0.900	A, B, S, Z
6.8	D	T83D685(1)035(2)(6)(4)(5)	2.4	6	1.100	0.300	A, B, C, S, Z
10	C	T83C106(1)035(2)(3)(4)(5)	3.5	6	1.600	0.450	A, B, S, Z
10	D	T83D106(1)035(2)(3)(4)(5)	3.5	6	0.800	0.250	A, B, C, S, Z
15	D	T83D156(1)035(2)(3)(4)(5)	5.3	6	0.700	0.300	A, B, S, Z
22	D	T83D226(1)035(2)(3)(4)(5)	7.7	6	0.600	0.400	A, B, S, Z
22	E	T83E226(1)035(2)(3)(4)(5)	7.7	6	0.600	0.300	A, B, S, Z
50 V_{DC} AT + 85 °C; 33 V_{DC} AT + 125 °C							
0.10	A	T83A104(1)050(2)(6)(4)(5)	0.50	4	19.000	10.000	A, B, C, S, Z
0.15	A	T83A154(1)050(2)(3)(4)(5)	0.50	4	17.000	10.000	A, B, S, Z
0.15	B	T83B154(1)050(2)(3)(4)(5)	0.50	4	14.000	9.000	A, B, S, Z
0.22	B	T83B224(1)050(2)(6)(4)(5)	0.50	4	12.000	8.500	A, B, C, S, Z
0.33	B	T83B334(1)050(2)(6)(4)(5)	0.50	4	10.000	4.500	A, B, C, S, Z
0.47	B	T83B474(1)050(2)(3)(4)(5)	0.50	4	8.400	4.000	A, B, S, Z
0.47	C	T83C474(1)050(2)(3)(4)(5)	0.50	4	6.700	1.800	A, B, S, Z
0.68	C	T83C684(1)050(2)(6)(4)(5)	0.50	4	5.900	1.600	A, B, C, S, Z
1.0	B	T83B105(1)050(2)(3)(4)(5)	0.50	4	6.700	2.000	A, B, S, Z
1.0	C	T83C105(1)050(2)(6)(4)(5)	0.50	4	4.600	1.600	A, B, C, S, Z
1.5	C	T83C155(1)050(2)(3)(4)(5)	0.80	6	3.400	1.500	A, B, S, Z
1.5	D	T83D155(1)050(2)(6)(4)(5)	0.80	6	2.900	1.000	A, B, C, S, Z
2.2	C	T83C225(1)050(2)(3)(4)(5)	1.1	6	2.900	1.500	A, B, S, Z
2.2	D	T83D225(1)050(2)(6)(4)(5)	1.1	6	2.100	0.800	A, B, C, S, Z
3.3	D	T83D335(1)050(2)(6)(4)(5)	1.7	6	1.700	0.800	A, B, C, S, Z
4.7	D	T83D475(1)050(2)(6)(4)(5)	2.4	6	1.200	0.300	A, B, C, S, Z
6.8	E	T83E685(1)050(2)(3)(4)(5)	3.4	6	0.900	0.540	A, B, S, Z
10	E	T83E106(1)050(2)(3)(4)(5)	5.0	6	0.800	0.550	A, B, S, Z
15	E	T83E156(1)050(2)(3)(4)(5)	7.5	6	0.800	0.350	A, B, C, S, Z
63 V_{DC} AT + 85 °C; 41.6 V_{DC} AT + 125 °C							
4.7	D	T83D475(1)063(2)(7)(4)(5)	3.0	6	1.100	0.700	A, S, Z
10	E	T83E106(1)063(2)(7)(4)(5)	6.3	6	1.000	0.600	A, S, Z

Note

- Part number definitions:
  (1) Capacitance tolerance: K, M
  (2) Termination and packaging: C, E, K, H, L, M, U, R, N
  (3) Reliability level: A, B, S, Z
  (4) Surge current: A, B, C, Z, S
  (5) ESR: L, S
  (6) Reliability level: A, B, C, S, Z
  (7) Reliability level: A, S, Z

RECOMMENDED VOLTAGE DERATING GUIDELINES (for temperatures below + 85 °C)	
STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS	
Capacitor Voltage Rating	**Operating Voltage**
4.0	2.5
6.3	3.3
10	5.0
16	8.0
20	10
25	12
35	15
50	24
63	32
SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS	
Capacitor Voltage Rating	**Operating Voltage**
4.0	2.5
6.3	3.6
10	6.0
16	10
20	12
25	15
35	24
50	28
63	38

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" FULL REEL	**7" HALF REEL**	**7" PARTIAL REEL**
A	2000	1000	100
B	2000	1000	100
C	500	250	100
D	500	250	100
E	400	200	100

PRODUCT INFORMATION	
COTS Guide for Tantalum Capacitors	www.vishay.com/doc?40083
Pad Dimensions	
Packaging Dimensions	
Moisture Sensitivity	www.vishay.com/doc?40135
SELECTOR GUIDES	
Solid Tantalum Selector Guide	www.vishay.com/doc?49053
FAQ	
Frequently Asked Questions	www.vishay.com/doc?40110

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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.

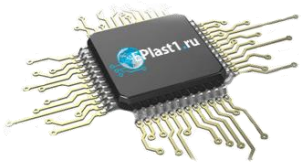
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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