



TANTALUM CAPACITORS

T83 Series



Hi-Rel COTS, Molded Solid Tantalum Chip Capacitors

KEY BENEFITS

- High reliability
- Weibull grading available
- Surge current testing per MIL-PRF-55365 options available
- Standard and low-ESR options available
- Case sizes A through E per EIA-535BAAC
- SnPb, 100 % tin, and gold-plated terminations available

APPLICATIONS

- Avionics
- Military
- Aerospace

Datasheet is available on our web site at www.vishay.com for T83 Series - <http://www.vishay.com/doc?40077>

Solid Tantalum Surface Mount TANTAMOUNT[®], Molded Case, Hi-Rel COTS

FEATURES

- Terminations Tin/Lead and 100 % Matte Tin
- Standard EIA535BAAC case sizes (A through E)
- Weibull Grading and Surge Current Test options COMPLIANT
- Standard and Low ESR options
- Compliant Terminations
- Meets EIA 535BAAC and IEC QC 300801/DSCC mechanical and performance requirements



PERFORMANCE/ELECTRICAL CHARACTERISTICS

Operating Temperature: -55 °C to +125 °C
 Capacitance Range: 0.1 µF to 330 µF
 Capacitance Tolerance: ± 10 %, ± 20 %
 Voltage Rating: 4 VDC to 50 VDC



Available
 RoHS*

ORDERING INFORMATION

T83 TYPE	D CASE CODE	K CAPACITANCE TOLERANCE	010 DC VOLTAGE RATING AT +85 °C	E TERMINATION AND PACKAGING	A RELIABILITY LEVEL	A SURGE CURRENT	S ESR
See Ratings in datasheet and first two digits are significant figures. The third is the number of zeros to follow.	See Ratings in datasheet and first two digits are significant figures. The third is the number of zeros to follow.	K = ± 10 % M = ± 20 %	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).	E: Tin/Lead (178 mm) reel L: Tin/Lead (178 mm), 1/2 reel C: Matte Tin (178 mm) reels H: Matte Tin (178 mm), 1/2 reel	A = 1.0 % B = 0.1 % S = Hi-Rel Standard Z = Non-ER	A = 10 cycles at +25 °C B = 10 cycles at -55 °C + 85 °C Z = None	S = Std L = Low

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 ± 0.012 [1.6 ± 0.30]	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]	0.067 ± 0.004 [2.2 ± 0.10]	0.039 [1.0]
D	7343-31	0.287 ± 0.012 [7.3 ± 0.30]	0.170 ± 0.012 [4.3 ± 0.30]	0.110 ± 0.012 [2.8 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.095 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]
E	7343-43	0.287 ± 0.012 [7.3 ± 0.30]	0.170 ± 0.012 [4.3 ± 0.30]	0.158 ± 0.012 [4.0 ± 0.30]	0.051 ± 0.012 [1.3 ± 0.30]	0.095 ± 0.004 [2.4 ± 0.10]	0.039 [1.0]

* Pb containing terminations are not RoHS compliant, exemptions may apply.

RATINGS AND CASE CODES

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

MARKING

Capacitance Code, pF	"A" CASE VOLTAGE CODE	
	VOLTS	CODE
4.0		G
6.3		J
10		A
16		C
20		D
25		E
35		V
50		T

Indicates HI-Rel COTS	Indicates HI-Rel COTS
V 104T	Indicates HI-Rel COTS
Polarity Band (+)	Capacitance µF
	22
	XX
	Date Code
	Vishay Sprague Logo

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.

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