

T83 Hi-Rel COTS, Molded Solid Tantalum Chip Capacitors



KEY BENEFITS

- High reliability
- Weibull grading available (A, B, C, S, Z)
- Broad voltage range from 4 V_{DC} to 63 V_{DC}
- Surge current testing per MIL-PRF-55365 options available (A, B, C, S, Z)
- Standard and low-ESR options available
- Case sizes A through E per EIA-535BAAC
- SnPb, 100 % tin, solder plated and gold-plated terminations available

APPLICATIONS

- Military
- Avionics
- Decoupling
- Power supplies at 28V
- DC/DC converters at 35V
- Base stations
- Other 28V applications

RESOURCES

- Datasheet: <http://www.vishay.com/doc?40077>
- Tantalum product portfolio: <http://www.vishay.com/capacitors/tantalum/>
- Reliability calculator: <http://www.vishay.com/capacitors/tantalum/capacitors/tantalum/tantalum-wet/tantalum-reliability-calculator-list/>
- Technical questions: contact_tantalum@vishay.com
- Sales contacts: <http://www.vishay.com/doc?99914>
- Material categorization: For definitions of compliance please see <http://www.vishay.com/doc?99912>



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COMPLIANT

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components



CAPACITORS

T83 Series Tantalum

Capacitors - Hi-Rel COTs Tantalum with Standard and Low-ESR Options

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

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									
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		
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						

 View complete datasheet: <http://www.vishay.com/doc?40077>