

TR3 Series: Ultra-Low ESR Molded Tantalum Chip Capacitors



KEY BENEFITS

- Low ESR starting at 35 mΩ
- 100% Surge current tested (C, D, E, V & W case sizes)
- Outstanding stability over time and temperature (- 55 °C to + 125 °C)
- Voltage values of 4 V through 63 V
- Molded case available in 7 case sizes A through W
- Terminations 100% Matte/Tin, Standard Tin/Lead available

APPLICATIONS

- Decoupling
- DC-DC Conversion
- Power Regulation
- Servers
- Switching power supplies
- Telecom equipments
- Base stations

RESOURCES

- Datasheet: <http://www.vishay.com/doc?40080>
- 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>





CAPACITORS

TR3 Tantalum



ORDERING INFORMATION

TR3	D	107	K	010	C	0100
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 = $\pm 10\%$ M = $\pm 20\%$	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).	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 in m Ω . See note below.

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.
- The EIA and CECC standards for low ESR solid tantalum chip capacitors, allow delta ESR of 1.25 times the datasheet limit after mounting.
- Dry pack is available per request, contact regional marketing.

DIMENSIONS in inches [millimeters]

CASE CODE	EIA SIZE	L	W	H	P	T _W	T _H (MIN.)
A	3216-18	0.126 $\pm$ 0.008 [3.2 $\pm$ 0.20]	0.063 $\pm$ 0.008 [1.6 $\pm$ 0.20]	0.063 $\pm$ 0.008 [1.6 $\pm$ 0.20]	0.031 $\pm$ 0.012 [0.80 $\pm$ 0.30]	0.047 $\pm$ 0.004 [1.2 $\pm$ 0.10]	0.028 [0.70]
B	3528-21	0.138 $\pm$ 0.008 [3.5 $\pm$ 0.20]	0.110 $\pm$ 0.008 [2.8 $\pm$ 0.20]	0.075 $\pm$ 0.008 [1.9 $\pm$ 0.20]	0.031 $\pm$ 0.012 [0.80 $\pm$ 0.30]	0.087 $\pm$ 0.004 [2.2 $\pm$ 0.10]	0.028 [0.70]
C	6032-28	0.236 $\pm$ 0.012 [6.0 $\pm$ 0.30]	0.126 $\pm$ 0.012 [3.2 $\pm$ 0.30]	0.098 $\pm$ 0.012 [2.5 $\pm$ 0.30]	0.051 $\pm$ 0.012 [1.3 $\pm$ 0.30]	0.087 $\pm$ 0.004 [2.2 $\pm$ 0.10]	0.039 [1.0]
D	7343-31	0.287 $\pm$ 0.012 [7.3 $\pm$ 0.30]	0.170 $\pm$ 0.012 [4.3 $\pm$ 0.30]	0.110 $\pm$ 0.012 [2.8 $\pm$ 0.30]	0.051 $\pm$ 0.012 [1.3 $\pm$ 0.30]	0.094 $\pm$ 0.004 [2.4 $\pm$ 0.10]	0.039 [1.0]
E	7343-43	0.287 $\pm$ 0.012 [7.3 $\pm$ 0.30]	0.169 $\pm$ 0.012 [4.3 $\pm$ 0.30]	0.157 $\pm$ 0.012 [4.0 $\pm$ 0.30]	0.051 $\pm$ 0.012 [1.3 $\pm$ 0.30]	0.094 $\pm$ 0.004 [2.4 $\pm$ 0.10]	0.039 [1.0]
V	7343-20	0.287 $\pm$ 0.012 [7.3 $\pm$ 0.30]	0.169 $\pm$ 0.012 [4.3 $\pm$ 0.30]	0.079 max. [2.0 max.]	0.051 $\pm$ 0.012 [1.3 $\pm$ 0.30]	0.094 $\pm$ 0.004 [2.4 $\pm$ 0.10]	0.039 [1.0]
W	7361-38	0.287 $\pm$ 0.012 [7.3 $\pm$ 0.30]	0.236 $\pm$ 0.012 [6.0 $\pm$ 0.30]	0.138 $\pm$ 0.012 [3.5 $\pm$ 0.30]	0.047 $\pm$ 0.008 [1.2 $\pm$ 0.20]	0.122 $\pm$ 0.004 [3.1 $\pm$ 0.10]	0.069 [1.75]

RATINGS AND CASE CODES

μ F	4 V	6.3 V	10 V	16 V	20 V	25 V	35 V	50 V	63 V
0.47							A		
0.68							A		
1.0					A	A	A/B	B/C	
1.5						A	B/C	B/C	
2.2			A	A	A	A/B	B/C	B/C/D	
3.3				A	A/B	A/B	B/C	C/D	
4.7			A	A/B	A/B	A/B/C	B/C/D	C/D/E	D
6.8			A	A/B	A/B	B/C	C/D/E	D/E	
10		A	A/B	A/B/C	B/C	B/C/D	C/D/E	D/E	E
15	A	A	A/B	B/C	B/C	B/C/D	D/E	E	
22	A	A/B	A/B/C	B/C/D	B/C/D	C/D/E/V	D/E		
33	A/B	A/B	B/C	B/C/D	C/D	D/E			
47	A/B	A/B/C	B/C/D	C/D	D/E	D/E			
68	B/C	B/C/D	B/C/D/E/V	D	D/E	E/W			
100	A/B/C	B/C/D/V	B/C/D/E/V	D/E	D/E/W	W			
150	B/C/D	C/D/E	C/D/E	D/E	W				
220	B/C/D	C/D/E/V	D/E/V	E					
330	D	D/E/W	D/E/W						
470	D/E	D/E/W	E/W						
680	D/E	E							
1000	E	E							

Full datasheet specifications: <http://www.vishay.com/doc?40080>