



HIGH-RELIABILITY TANTALUM CAPACITORS

TM8



Ideal for Medical, Military, and Space Applications

KEY BENEFITS

- Robust designs - ensuring the highest possible reliability
- Tailorable high-reliability screening options – select the right screening regiment for your application needs
- Low DCL - efficient operation and long battery life
- Small case sizes – ideal for space constrained applications
- Dedicated production facility with highly skilled staff to ensure quality in all phases of production
- Leverages Vishay's patented MICROTAN™ packaging technology for best-in-class performance

APPLICATIONS

- Medical implantable devices (pacemakers, ICDs, neurological stimulators)
- Medical instrumentation
- Avionics, military, and space

Solid Tantalum Chip Capacitors MICROTAN™ High Reliability, Low DCL, Leadframeless Molded

FEATURES

- High reliability solid surface mount tantalum capacitors
- Low DCL for extended battery life
- Small sizes for space constrained applications
- L-shaped terminations for superior board mounting
- Suitable for medical implantable applications with additional screening
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT



PERFORMANCE CHARACTERISTICS
Operating Temperature: - 55 °C to + 85 °C
(to + 125 °C with voltage derating)

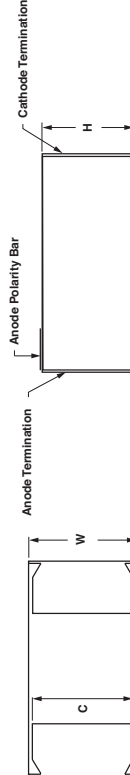
TM8 MODEL	R CASE CODE	106 CAPACITANCE	M CAPACITANCE TOLERANCE	016 DC VOLTAGE RATING AT + 85 °C	E TERMINATION/ PACKAGING	B RELIABILITY LEVEL	A SURGE CURRENT
			K = ± 10 % M = ± 20 %		E = Sn/Pb solder/ 7" (178 mm) reels R = Sn/Pb solder/ 7" (178 mm) reels 300 pcs. qty. C = 100 % tin/ 7" (178 mm) reels U = 100 % tin/ 7" (178 mm) 300 pcs. qty.	B = 0.1 % weibull FRL S = Hi-Rel std. (40 h burn-in) Z = None established reliability	A = 10 cycles at 25 °C B = 10 cycles at - 55 °C/+ 85 °C Z = None

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).

This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.

Note
• Standard options are in bold

DIMENSIONS in inches [millimeters]



CASE	L	W	H	P1	P2 (REF.)	C
Q	0.100 ± 0.015 [2.54 ± 0.38]	0.053 ± 0.012 [1.33 ± 0.30]	0.050 ± 0.012 [1.27 ± 0.30]	0.031 ± 0.004/-0.006 [0.80 ± 0.1/-0.15]	0.038 ± 0.010 [0.96 ± 0.25]	0.046 ± 0.009/-0.001 [1.17 ± 0.23/-0.025]
D	0.150 ± 0.015 [3.8 ± 0.38]	0.100 ± 0.015 [2.54 ± 0.38]	0.050 ± 0.012 [1.27 ± 0.30]	0.031 ± 0.004/-0.006 [0.80 ± 0.1/-0.15]	0.038 ± 0.010 [0.96 ± 0.25]	0.091 ± 0.009/-0.001 [2.3 ± 0.23/-0.025]
E	0.201 ± 0.015 [5.1 ± 0.38]	0.100 ± 0.015 [2.54 ± 0.38]	0.050 ± 0.012 [1.27 ± 0.30]	0.031 ± 0.004/-0.006 [0.80 ± 0.1/-0.15]	0.139 ± 0.010 [3.5 ± 0.25]	0.091 ± 0.009/-0.001 [2.3 ± 0.23/-0.025]
F	0.220 ± 0.015 [5.6 ± 0.38]	0.138 ± 0.012 [3.5 ± 0.3]	0.050 ± 0.012 [1.27 ± 0.30]	0.039 ± 0.005 [1.0 ± 0.13]	0.142 ± 0.010 [3.6 ± 0.25]	0.128 ± 0.009/-0.001 [3.2 ± 0.23/-0.025]
K	0.045 ± 0.002 [1.14 ± 0.05]	0.026 ± 0.002 [0.66 ± 0.05]	0.024 max. [0.61 max.]	0.010 ± 0.004 [0.25 ± 0.1]	0.020 min. [0.51 min.]	0.015 ± 0.004 [0.38 ± 0.1]

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For technical questions, contact tantalum@vishay.com

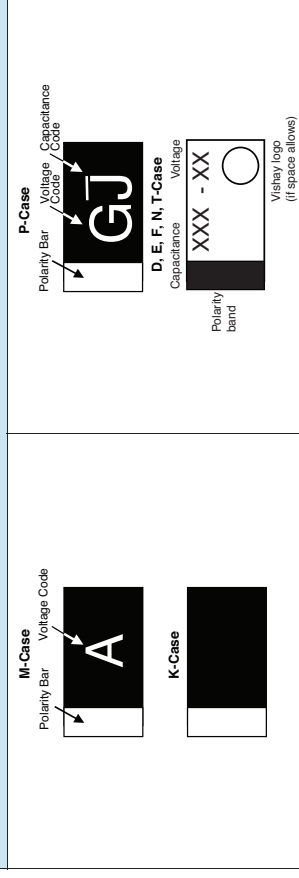
DIMENSIONS in inches [millimeters]							
CASE	L	W	H	P1	P2 (REF.)	C	
L	0.081 ± 0.008 [2.05 ± 0.2]	0.051 ± 0.004 [1.3 ± 0.10]	0.04 max. [1.0 max.]	0.020 ± 0.004 [0.50 ± 0.1]	0.027 min. [0.70 min.]	0.035 ± 0.009/-0.001 [0.9 ± 0.23/-0.02]	
M	0.063 ± 0.006 [1.60 ± 0.15]	0.033 ± 0.006 [0.84 ± 0.15]	0.033 ± 0.006 [0.84 ± 0.15]	0.020 ± 0.004 [0.51 ± 0.1]	0.019 min. [0.48 min.]	0.024 ± 0.004 [0.61 ± 0.1]	
N	0.138 ± 0.004/-0.008 [3.505 ± 0.101/-0.203]	0.110 ± 0.004 [2.80 ± 0.1]	0.04 max. [1.0 max.]	0.031 ± 0.004/-0.006 [0.80 ± 0.1/-0.15]	0.088 ± 0.010 [2.24 ± 0.25]	0.091 ± 0.009/-0.001 [2.3 ± 0.23/-0.025]	
P	0.096 ± 0.006 [2.45 ± 0.15]	0.059 ± 0.006 [1.5 ± 0.15]	0.049 max. [1.25 max.]	0.020 ± 0.004 [0.51 ± 0.1]	0.043 min. [1.1 min.]	0.035 ± 0.004 [0.90 ± 0.1]	
R	0.081 ± 0.006 [2.06 ± 0.15]	0.053 ± 0.006 [1.35 ± 0.15]	0.058 ± 0.004 [1.47 ± 0.10]	0.020 ± 0.004 [0.51 ± 0.1]	0.028 min. [0.71 min.]	0.035 ± 0.004 [0.90 ± 0.1]	
T	0.138 ± 0.004/-0.008 [3.505 ± 0.101/-0.203]	0.110 ± 0.004 [2.80 ± 0.1]	0.06 max. [1.52 max.]	0.031 ± 0.004/-0.006 [0.80 ± 0.1/-0.15]	0.088 ± 0.010 [2.24 ± 0.25]	0.091 ± 0.009/-0.001 [2.3 ± 0.23/-0.025]	
W	0.081 ± 0.006 [2.06 ± 0.15]	0.053 ± 0.006 [1.35 ± 0.15]	0.047 max. [1.2 max.]	0.020 ± 0.004 [0.51 ± 0.1]	0.028 min. [0.71 min.]	0.035 ± 0.004 [0.90 ± 0.1]	

RATINGS AND CASE CODES

F	6.3 V	10 V	16 V	20 V	25 V	40 V
1.0	M	M	M	W	R	P
2.2						
3.3		M		R		
4.7					P	
7.5	L	L	L	N*		
10	M	R	R			
15	M					
22						
33						
47	T					

Note
• Preliminary values, contact factory for availability.

MARKING



Revision 22-Jun-10

Build Vishay into your Design