

## CWR11: Solid Tantalum Chip Capacitor, Military, Surface-Mount



### KEY BENEFITS

- Broad capacitance range: 0.10  $\mu\text{F}$  to 100  $\mu\text{F}$
- Broad voltage range: 4  $V_{\text{DC}}$  to 50  $V_{\text{DC}}$
- Military established reliability; Weibull failure rates B, C, D and T
- Space level option
- Molded case available in four military case codes: A, B, C, and D
- Mature, well-proven design
- 90/10 tin/lead plated, solder plated, solder fused terminations

### APPLICATIONS

- Military
- Avionics
- Space

### RESOURCES

- Datasheet: <http://www.vishay.com/doc?40011>
- Tantalum product portfolio: <http://www.vishay.com/capacitors/tantalum/>
- FIT calculator: <http://www.vishay.com/capacitors/tantalum/capacitors/tantalum/tantalum-wet/tantalum-reliability-calculator-list/>
- Technical questions: [contact\\_tantalum@vishay.com](mailto:contact_tantalum@vishay.com)
- Sales contacts: <http://www.vishay.com/doc?99914>



ORDERING INFORMATION							
CWR11	D	H	155	K	B	A	/HR
TYPE	VOLTAGE	TERMINATION FINISH	CAPACITANCE	CAPACITANCE TOLERANCE	FAILURE RATE %/1000 h	SURGE CURRENT (OPTIONAL)	PACKAGING OPTION
	C = 4 V D = 6 V F = 10 V H = 15 V J = 20 V K = 25 V M = 35 V N = 50 V	H = Solder plate	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	J = ± 5 % K = ± 10 % M = ± 20 %	M = 1.0 P = 0.1 R = 0.01 S = 0.001 B = 0.1 C = 0.01 D = 0.001 T = 0.01 <sup>(1)</sup>	A = + 25 °C after Weibull B = - 55 °C/+ 85 °C after Weibull C = - 55 °C/+ 85 °C before Weibull	Blank = Full reel /PR = 100 pcs reel /HR = half reel /PT = Bulk, plastic tray

**Note**

(1) T level capacitors are recommended for "Space applications"

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]	0.170 ± 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]

RATINGS AND CASE CODES								
μF	4 V	6 V	10 V	15 V	20 V	25 V	35 V	50 V
0.10							A	A
0.15							A	B
0.22							A	B
0.33						A	A	B
0.47					A	A	B	C
0.68				A	A	B	B	C
1.0			A	A	A	B	B	C
1.5		A	A	A	B	B	C	D
2.2	A	A	A	B	B	C	C	D
3.3		A	B	B	B	C	C	D
4.7	A	B	B	B	C	C	D	D
6.8	B	B	B		C	D	D	
10	B	B		C		D		
15	B	C	C		D	D		
22		C		D	D			
33	C		D	D				
47		D	D					
68	D	D						
100	D							

 View complete datasheet: <http://www.vishay.com/doc?40011>