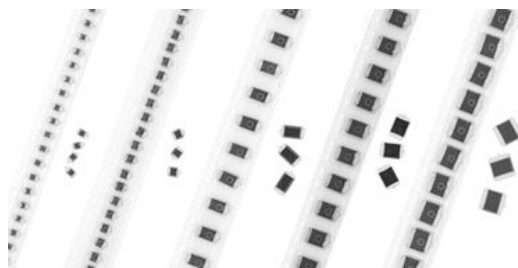


Solid Tantalum Chip Capacitors

Application Specific Pulse Capacitor for Wireless Modems



FEATURES

- Robust design for use in wireless modem applications
- Designed specifically for pulsed operation
- 100 % surge current tested
- Compliant to RoHS Directive 2002/95/EC



RoHS*
COMPLIANT

PERFORMANCE CHARACTERISTICS

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

Capacitance Tolerance: ± 20 % standard
Capacitance Range: 330 µF to 2200 µF
Voltage Rating: 6.3 WV_{DC} to 10 WV_{DC}

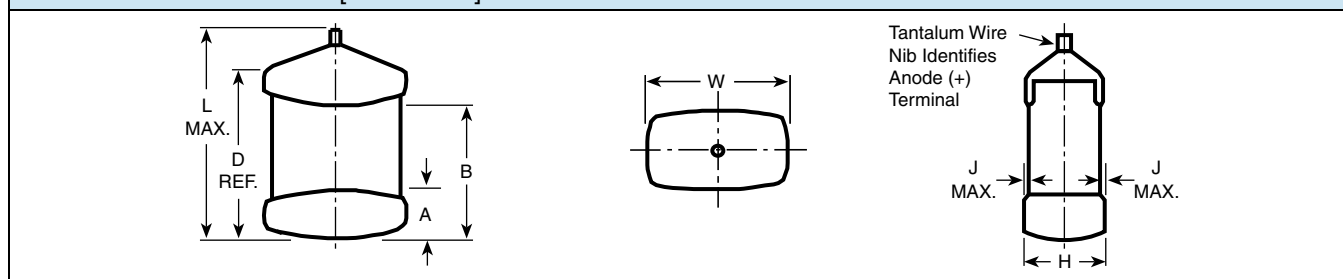
ORDERING INFORMATION

592W	757	X0	010	M	2	T	20H
TYPE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	CASE CODE	TERMINATION	REEL SIZE AND PACKAGING	SUFFIX
	This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	X0 = ± 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).	See Ratings and Case Codes table	2 = 100 % tin	T = 7" [178 mm] reel	Maximum height (mm) see dimensions

Notes

- Preferred tolerance and reel sizes are in bold
- 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

DIMENSIONS in inches [millimeters]



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

DIMENSIONS in inches [millimeters]

CASE CODE	SUFFIX	H	L MAX.	W	A	B	D REF.	J MAX.
C	16H	0.063 [1.6] max.	0.281 [7.1]	0.126 ± 0.012 [3.2 ± 0.3]	0.051 ± 0.012 [1.3 ± 0.3]	0.180 ± 0.024 [4.4 ± 0.6]	0.238 [6.0]	0.004 [0.1]
C	20H	0.079 [2.0] max.						
M	16H	0.063 [1.6] max.	0.295 [7.5]	0.247 ± 0.012 [6.3 ± 0.3]	0.051 ± 0.012 [1.3 ± 0.3]	0.180 ± 0.024 [4.6 ± 0.6]	0.264 [6.7]	0.004 [0.1]
M	20H	0.079 [2.0] max.	0.295 [7.5]	0.247 ± 0.012 [6.3 ± 0.3]	0.051 ± 0.012 [1.3 ± 0.3]	0.180 ± 0.024 [4.6 ± 0.6]	0.264 [6.7]	0.004 [0.1]
X	16H	0.063 [1.6] max.	0.575 [14.5]	0.290 + 0.010/- 0.020 [7.37 + 0.25/- 0.5]	0.051 ± 0.016 [1.3 ± 0.4]	0.470 ± 0.024 [11.9 ± 0.6]	0.524 [13.2]	0.004 [0.1]
X	20H	0.079 [2.0] max.						

RATINGS AND CASE CODES

μF	4 V	6.3 V	8.2 V	10 V	16 V
330				C_2.0 ⁽¹⁾	
470		C_1.6 ⁽¹⁾	C_2.0 ⁽¹⁾		
680					
750				M_2.0	
1000				X_2.0 ⁽¹⁾	
1500		M_1.6 ⁽¹⁾		X_2.0 ⁽¹⁾	
2200		X_1.6 ⁽¹⁾			

Note⁽¹⁾ Preliminary value, contact factory for availability**STANDARD RATINGS**

CAPACITANCE (μF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (μA)	MAX. DF AT + 25 °C 120 Hz (%)	MAX. ESR AT + 25 °C 100 kHz (Ω)
6.3 WV_{DC}; 4.0 WV_{DC} AT + 85 °C, 2.5 WV_{DC} AT + 125 °C					
470	C	592W477X06R3C__16H	30	14	0.200
1500	M	592W158X06R3M__16H	95	50	0.100
2200	X	592W228X06R3X__16H	139	45	0.070
8.2 WV_{DC}; 5.2 WV_{DC} AT + 85 °C, 3.3 WV_{DC} AT + 125 °C					
470	C	592W477X08R2C__20H	57	20	0.100
10 WV_{DC}; 6.3 WV_{DC} AT + 85 °C, 4.0 WV_{DC} AT + 125 °C					
330	C	592W337X0010C__20H	33	20	0.100
750	M	592W757X0010M__20H	75	35	0.100
1000	X	592W108X0010X__20H	100	35	0.080
1500	X	592W158X0010X__20H	150	35	0.050

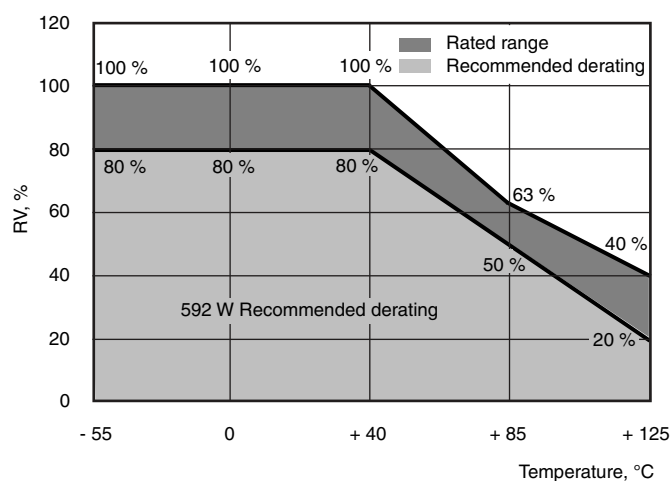


Solid Tantalum Chip Capacitors
Application Specific Pulse Capacitor for Wireless Modems

Vishay Sprague

ELECTRICAL PERFORMANCE CHARACTERISTICS

ITEM	PERFORMANCE CHARACTERISTICS					
Category temperature range	- 55 °C to + 125 °C (with voltage derating)					
Capacitance tolerance	± 20 %, ± 10 % (at 120 Hz) 2 V _{RMS} at + 25 °C using a capacitance bridge					
Dissipation factor (at 120 Hz)	Limits per Standard Ratings table. Tested via bridge method, at 25 °C, 120 Hz					
ESR (100 kHz)	Limits per Standard Ratings table. Tested via bridge method, at 25 °C, 100 kHz					
Leakage current	After application of RV applied to capacitors for 5 min using a steady source of power with 1 kΩ resistor in series with the capacitor under test, leakage current at 25 °C is not more than described in.					
Operation temperatures	Rated voltage	- 55 °C/+ 40 °C	10 V	8.2 V	6.3 V	4.0 V
	Category voltage	+ 40 °C/+ 85 °C	6.3 V	5.2 V	4.0 V	2.5 V
	Category voltage	+ 85 °C/+ 125 °C	4 V	3.3 V	2.5 V	1.6 V

VOLTAGE VS. TEMPERATURE RATING



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