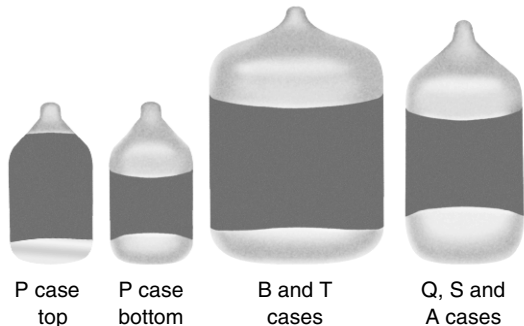


## Solid Tantalum Chip Capacitors

### TANTAMOUNT<sup>®</sup>, Low Profile, Conformal Coated, Maximum CV



Images not to scale

#### FEATURES

- P case offers single-sided lead (Pb)-free terminations
- Wraparound lead (Pb)-free terminations: Q, S, A, B and T
- Low Impedance
- 8 mm and 12 mm tape and reel packaging available per EIA-481-1 and reeling per IEC 286-3 7" [178 mm] standard 13" [330 mm] available
- Compliant to RoHS directive 2002/95/EC



**RoHS**  
COMPLIANT

#### PERFORMANCE CHARACTERISTICS

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

**Note**

- Refer to Doc. 40088

**Capacitance Range:** 2.2 μF to 220 μF  
**Capacitance Tolerance:** ± 10 %, ± 20 % standard  
**Voltage Rating:** 4 WVDC to 25 WVDC

ORDERING INFORMATION						
572D	336	X0	6R3	A	2	T
TYPE	CAPACITANCE	CAPACITANCE TOLERANCE	DC VOLTAGE RATING AT + 85 °C	CASE CODE	TERMINATION	REEL SIZE AND PACKAGING
This is expressed in picofarads. The first two digits are the significant figures. The third is the number of zeros to follow.	<b>X0 = ± 20 %</b> <b>X9 = ± 10 %</b>	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	<b>2 = 100 % Tin</b> <b>4 = Gold Plated</b>	<b>T = Tape and Reel</b> <b>7" [178 mm] Reel</b> <b>W = 13" [330 mm] Reel</b>	

**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

DIMENSIONS in inches [millimeters]							
				<b>Single-side electrodes (Both electrodes at bottom side only)</b>			
CASE CODE	L (MAX.)	W	H	A	B	C	D (REF.)
P	0.087 ± 0.012 [2.2 ± 0.3]	0.049 ± 0.012 [1.25 ± 0.3]	0.039 ± 0.008 [1.0 ± 0.2]	0.024 ± 0.012 [0.6 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.008 [0.2]
CASE CODE	L (MAX.)	W	H	A	B	C	D (REF.)
Q	0.126 ± 0.008 [3.2 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.031 ± 0.008 [0.8 ± 0.2]	0.031 ± 0.008 [0.8 ± 0.2]	0.047 ± 0.008 [1.2 ± 0.2]	0.031 ± 0.008 [0.8 ± 0.2]	0.008 [0.2]
S	0.126 ± 0.012 [3.2 ± 0.3]	0.063 ± 0.012 [1.6 ± 0.3]	0.039 ± 0.008 [1.0 ± 0.2]	0.031 ± 0.012 [0.8 ± 0.3]	0.047 ± 0.012 [1.2 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.008 [0.2]
A	0.126 ± 0.012 [3.2 ± 0.3]	0.067 ± 0.012 [1.7 ± 0.3]	0.05 ± 0.012 [1.3 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.047 ± 0.012 [1.2 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.008 [0.2]
B	0.130 ± 0.012 [3.3 ± 0.3]	0.106 ± 0.012 [2.7 ± 0.3]	0.066 ± 0.012 [1.7 ± 0.3]	0.031 ± 0.012 [0.8 ± 0.3]	0.047 ± 0.012 [1.2 ± 0.3]	0.043 ± 0.012 [1.1 ± 0.3]	0.008 [0.2]
T	0.138 ± 0.008 [3.5 ± 0.2]	0.106 ± 0.008 [2.7 ± 0.2]	0.039 ± 0.008 [1.0 ± 0.2]	0.031 ± 0.008 [0.8 ± 0.2]	0.047 ± 0.008 [1.2 ± 0.2]	0.043 ± 0.008 [1.1 ± 0.2]	0.008 [0.2]



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Vishay Sprague

RATINGS AND CASE CODE					
μF	4 V	6.3 V	10 V	16 V	25 V
2.2					Q
4.7					A/S
6.8					
10			P	P	A
15					
22				A/B/T	
33	P	A/P/Q/S	P/A/S		
47		Q/S	S <sup>(1)</sup>		
68		S	B		
100		A/B/T/S	B/T		
220	B/B <sup>(2)</sup> /T/S	B			
330	T <sup>(1)</sup>				

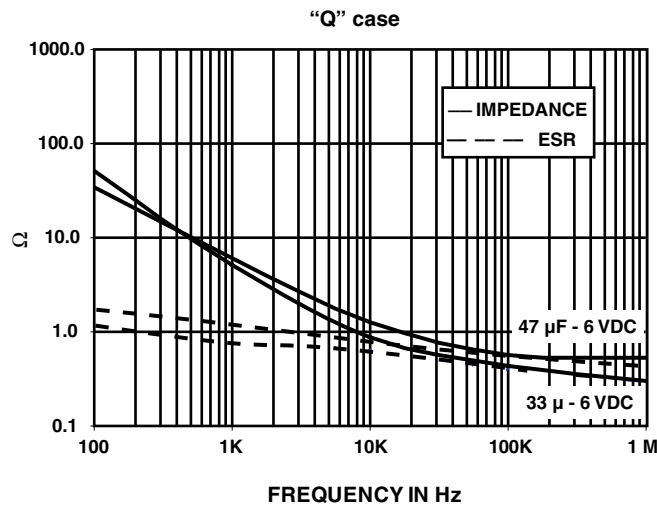
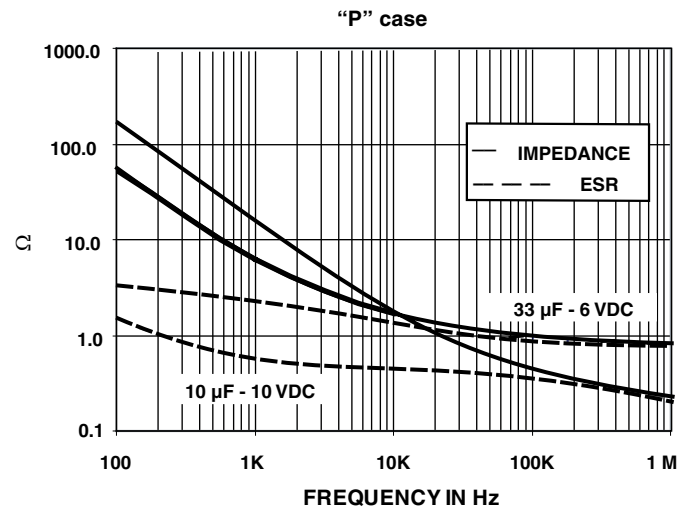
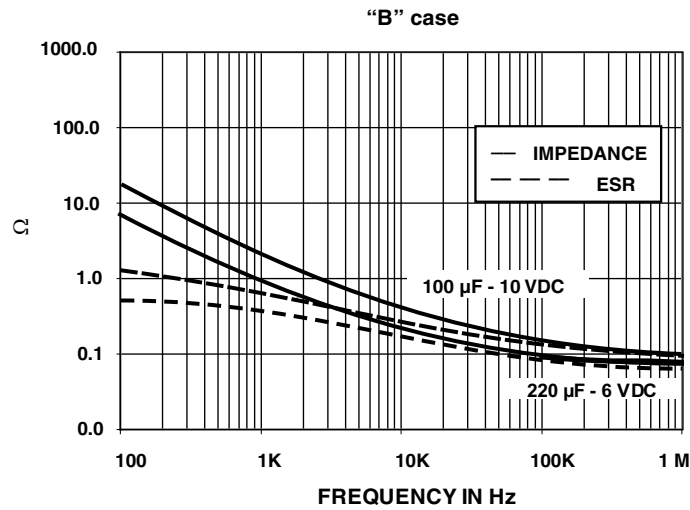
STANDARD RATINGS						
CAPACITANCE (μF)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C (μA)	MAX. DF AT + 25 °C 120 Hz (%)	MAX. ESR AT + 25 °C 100 kHz (Ω)	MAX. RIPPLE 100 kHz I <sub>rms</sub> (A)
<b>4 WVDC AT + 85 °C, 2.7 WVDC AT + 125 °C</b>						
33	P	572D336X_004P2_001 <sup>(2)</sup>	1.32	14	1.5	0.13
220	B	572D227X_004B2_	8.8	16	0.2	0.63
220	B	572D227X_004B2_001 <sup>(2)</sup>	8.8	16	0.2	0.63
220	T	572D227X0004T2_	8.8	26	0.6	0.37
220	S	572D227X0004S2_	8.8	25	0.8	0.26
330*	T*	572D337X_004T2_ <sup>(1)</sup>	13.2 <sup>(1)</sup>	26 <sup>(1)</sup>	0.8 <sup>(1)</sup>	0.56 <sup>(1)</sup>
<b>6.3 WVDC AT 85 °C, 4 WVDC AT + 125 °C</b>						
33	A	572D336X_6R3A2_	2.1	8	0.8	0.29
33	P	572D336X06R3P2_	2.1	14	1.5	0.13
33	Q	572D336X_6R3Q2_	2.1	10	2.0	0.17
33	S	572D336X_6R3S2_	2.1	10	1.0	0.24
47	Q	572D476X06R3Q2_	3.0	10	1.1	0.22
47	S	572D476X_6R3S2_	3.0	10	0.9	0.25
68	S	572D686X06R3S2_	4.3	12	0.9	0.26
100	A	572D107X06R3A2_	6.3	14	0.5	0.36
100	B	572D107X_6R3B2_	6.3	14	0.4	0.45
100	T	572D107X_6R3T2_	6.3	14	0.5	0.36
100	S	572D107X_6R3S2_	6.3	20	1.0	0.24
220	B	572D227X_6R3B2_	13.9	16	0.2	0.63
<b>10 WVDC AT + 85 °C, 7 WVDC AT + 125 °C</b>						
10	P	572D106X_010P2_	1.0	8	3.0	0.09
33	P	572D336X0010P2_	3.3	25	4.0	0.08
33	A	572D336X0010A2_	3.3	10	0.8	0.29
33	S	572D336X0010S2_	3.3	10	1.1	0.23
47 <sup>(1)</sup>	S <sup>(1)</sup>	572D476X0010S2 <sup>(1)</sup>	4.7 <sup>(1)</sup>	14 <sup>(1)</sup>	1.1 <sup>(1)</sup>	0.23 <sup>(1)</sup>
68	B	572D686X_010B2_	6.8	6	0.45	0.42
100	B	572D107X0010B2_	10	14	0.4	0.45
100	T	572D107X0010T2_	10.0	18	0.5	0.40
<b>16 WVDC AT + 85 °C, 10 WVDC AT + 125 °C</b>						
10	P	572D106X_016P2_	1.6	10	4.0	0.08
22	A	572D226X_016A2_	3.5	8	1.4	0.22
22	B	572D226X_016B2_	3.5	6	0.5	0.45
22	T	572D226X_016T2_	3.5	8	1.0	0.24
<b>25 WVDC AT + 85 °C, 17 WVDC AT + 125 °C</b>						
2.2	Q	572D225X_025Q2_	0.65	6	5.0	0.10
4.7	A	572D475X_025A2_	1.2	6	2.0	0.18
4.7	S	572D475X_025S2_	1.2	8	4.0	0.12
10	A	572D106X_025A2_	2.5	10	3.5	0.15

Notes

(1) Contact factory for availability

(2) Special height: 572D227X\_004B2\_001, height = 1.7 mm max.; 572D336X\_004P2\_001, height = 1.0 mm max.

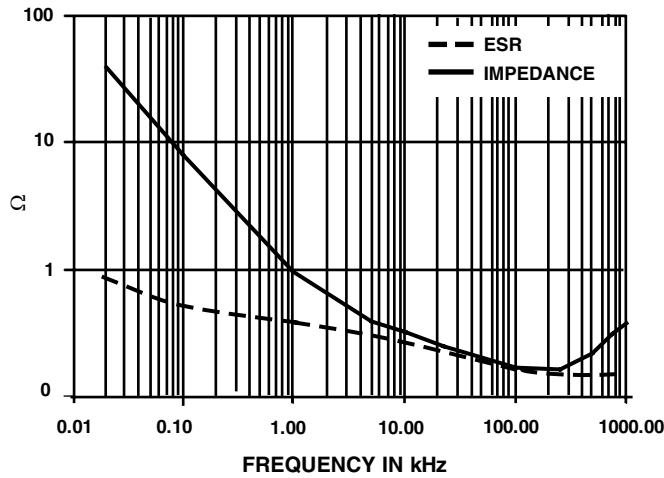
**TYPICAL CURVES AT + 25 °C, IMPEDANCE AND ESR VS. FREQUENCY**



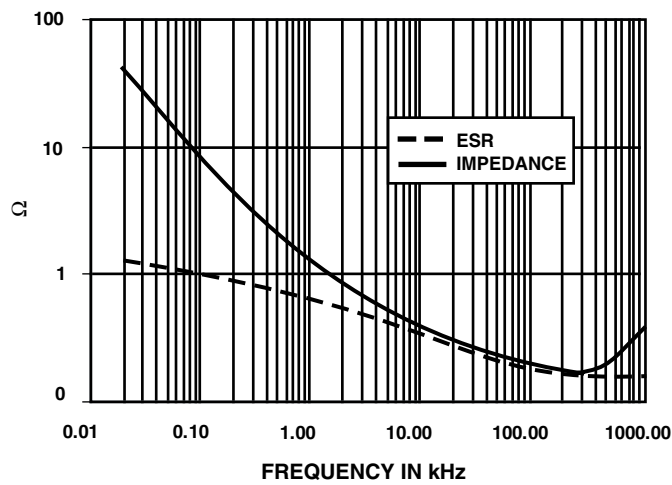


**TYPICAL CURVES AT + 25 °C, IMPEDANCE AND ESR VS. FREQUENCY**

220  $\mu$ F - 4 V T-Case  
ESR/Z vs. Freq.



220  $\mu$ F - 4 V S-Case  
ESR/Z vs. Freq.





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