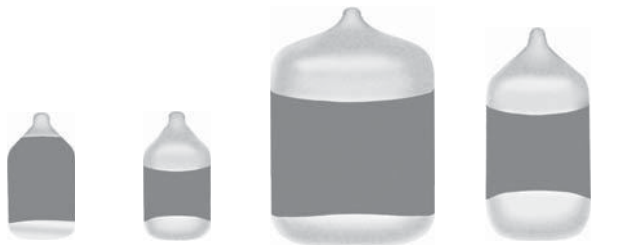


# Solid Tantalum Chip Capacitors

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



P case top P case bottom B and T cases Q, S, and A cases

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 cases
- 8 mm and 12 mm tape and reel packaging available per EIA-481 and reeling per IEC 60286-3  
7" [178 mm] standard  
13" [330 mm] available
- Mounting: Surface mount
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

**PERFORMANCE CHARACTERISTICS**
[www.vishay.com/doc?40088](http://www.vishay.com/doc?40088)
**Operating Temperature:** - 55 °C to + 125 °C  
(above 85 °C, voltage derating is required)

**Capacitance Range:** 2.2 μF to 220 μF

**Capacitance Tolerance:** ± 10 %, ± 20 % standard

**Voltage Rating:** 4 V<sub>DC</sub> to 35 V<sub>DC</sub>

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> 4 = Gold plated	<b>T = Tape and reel</b> <b>7" [178 mm] reel</b> W = 13" [330 mm] reel

**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]							
				Single-side electrodes (both electrodes at bottom side only)			
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]	0.051 ± 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]	0.067 ± 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]



DIMENSIONS in inches [millimeters]							
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]

RATINGS AND CASE CODES							
µF	4 V	6.3 V	10 V	16 V	25 V	35 V	
2.2					Q	A	
4.7					A/S		
10			P	P	A		
22				A/B/T			
33		A/P/Q/S	A/P/S				
47		Q/S	S				
68		S	B				
100		A/B/S/T	B/T				
220	B/S/T	B					

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 V<sub>DC</sub> AT+ 85 °C, 2.7 V<sub>DC</sub> AT + 125 °C</b>							
220	B	572D227(1)004B(2)(3)	8.8	16	0.2	0.63	
220	S	572D227X0004S(2)(3)	8.8	25	0.8	0.26	
220	T	572D227X0004T(2)(3)	8.8	26	0.6	0.37	
<b>6.3 V<sub>DC</sub> AT+ 85 °C, 4 V<sub>DC</sub> AT + 125 °C</b>							
33	A	572D336(1)6R3A(2)(3)	2.1	8	0.8	0.29	
33	P	572D336X06R3P(2)(3)	2.1	14	1.5	0.13	
33	Q	572D336(1)6R3Q(2)(3)	2.1	10	2.0	0.17	
33	S	572D336(1)6R3S(2)(3)	2.1	10	1.4	0.24	
47	Q	572D476X06R3Q(2)(3)	3.0	10	1.1	0.22	
47	S	572D476(1)6R3S(2)(3)	3.0	10	0.9	0.25	
68	S	572D686(1)6R3S(2)(3)	4.3	12	0.9	0.26	
100	A	572D107(1)6R3A(2)(3)	6.3	14	0.8	0.36	
100	B	572D107(1)6R3B(2)(3)	6.3	14	0.4	0.45	
100	S	572D107X06R3S(2)(3)	6.3	20	1.0	0.24	
100	T	572D107(1)6R3T(2)(3)	6.3	14	0.6	0.36	
220	B	572D227(1)6R3B(2)(3)	13.9	16	0.2	0.63	
<b>10 V<sub>DC</sub> AT+ 85 °C, 7 V<sub>DC</sub> AT + 125 °C</b>							
10	P	572D106(1)010P(2)(3)	1.0	8	3.0	0.09	
33	A	572D336(1)010A(2)(3)	3.3	10	0.8	0.29	
33	P	572D336X0010P(2)(3)	3.3	25	4.0	0.08	
33	S	572D336X0010S(2)(3)	3.3	10	1.1	0.23	
47	S	572D476X0010S(2)(3)	4.7	14	1.1	0.23	
68	B	572D686(1)010B(2)(3)	6.8	6	0.45	0.42	
100	B	572D107(1)010B(2)(3)	10	14	0.4	0.45	
100	T	572D107X0010T(2)(3)	10	18	0.5	0.40	
<b>16 V<sub>DC</sub> AT + 85 °C, 10 V<sub>DC</sub> AT + 125 °C</b>							
10	P	572D106(1)016P(2)(3)	1.6	10	4.0	0.08	
22	A	572D226(1)016A(2)(3)	3.5	8	1.4	0.22	
22	B	572D226(1)016B(2)(3)	3.5	6	0.5	0.45	
22	T	572D226(1)016T(2)(3)	3.5	8	1.1	0.27	
<b>25 V<sub>DC</sub> AT + 85 °C, 17 V<sub>DC</sub> AT + 125 °C</b>							
2.2	Q	572D225(1)025Q(2)(3)	0.65	6	5.0	0.10	
4.7	A	572D475(1)025A(2)(3)	1.2	8	2.8	0.15	
4.7	S	572D475(1)025S(2)(3)	1.2	8	4.0	0.12	

**Note**

- Part number definitions:
  - Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"
  - Termination: For 100 % tin specify "2", for gold plated specify "4"
  - Packaging code: For 7" reels specify "T", for 13" reel specify "W"



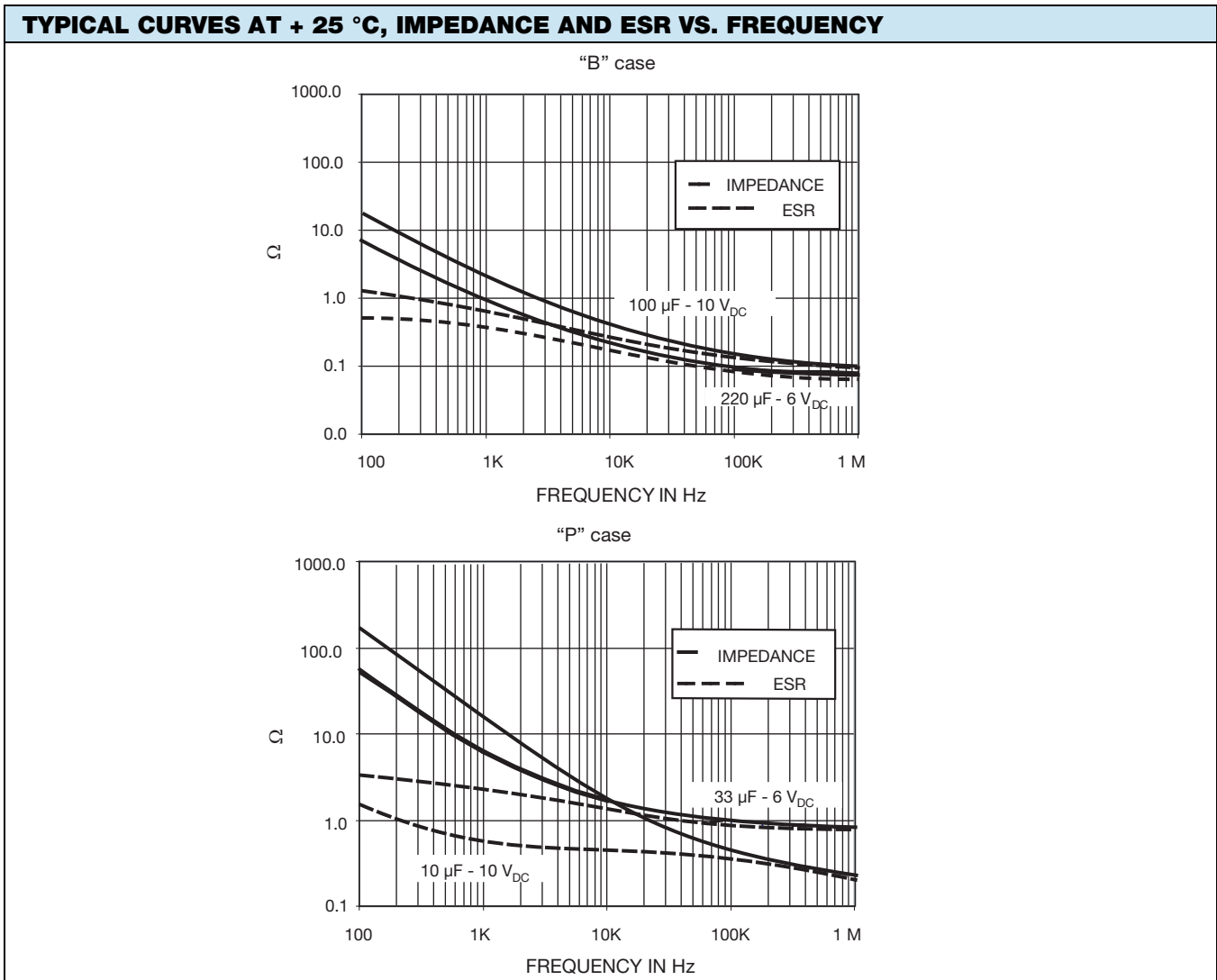
STANDARD RATINGS						
CAPACITANCE ( $\mu$ F)	CASE CODE	PART NUMBER	MAX. DCL AT + 25 °C ( $\mu$ A)	MAX. DF AT + 25 °C 120 Hz (%)	MAX. ESR AT + 25 °C 100 kHz ( $\Omega$ )	MAX. RIPPLE 100 kHz $I_{RMS}$ (A)
10	A	572D106(1)025A(2)(3)	2.5	10	3.5	0.15
<b>35 V<sub>DC</sub> AT + 85 °C, 23 V<sub>DC</sub> AT + 125 °C</b>						
2.2	A	572D225(1)035A(2)(3)	0.8	6	3.0	0.12

**Note**

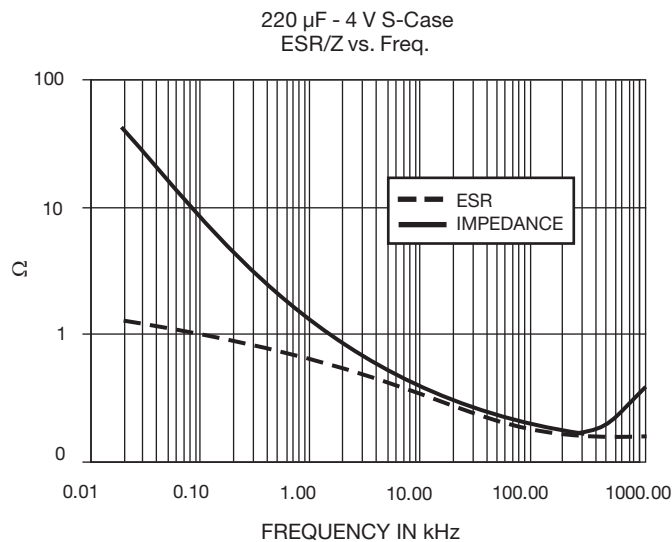
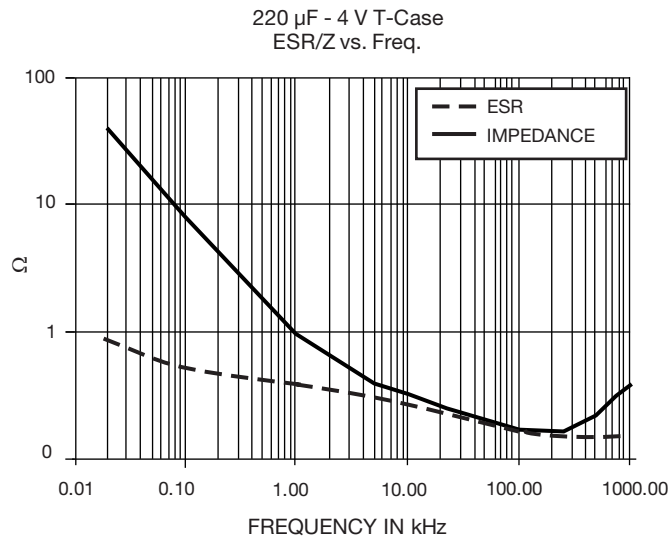
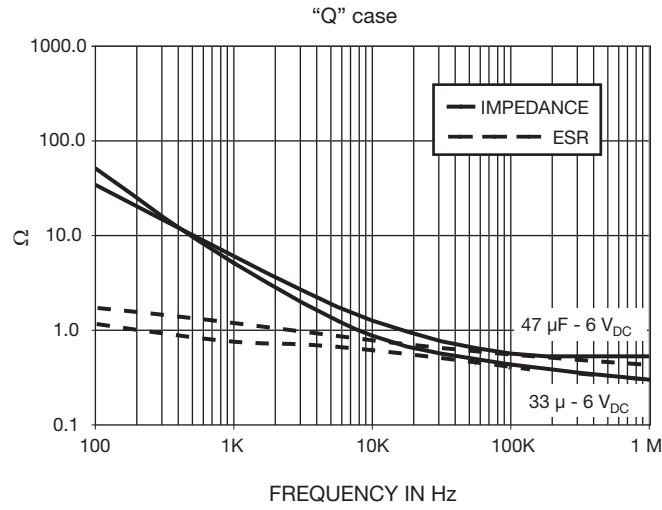
- Part number definitions:
  - Tolerance: For 10 % tolerance, specify "X9"; for 20 % tolerance, change to "X0"
  - Termination: For 100 % tin specify "2", for gold plated specify "4"
  - Packaging code: For 7" reels specify "T", for 13" reel specify "W"



<b>RECOMMENDED VOLTAGE DERATING GUIDELINES</b> (for temperatures below + 85 °C)	
<b>STANDARD CONDITIONS. FOR EXAMPLE: OUTPUT FILTERS</b>	
Capacitor Voltage Rating	Operating Voltage
4.0	2.5
6.3	3.6
10	6.0
16	10
25	15
35	24
<b>SEVERE CONDITIONS. FOR EXAMPLE: INPUT FILTERS</b>	
Capacitor Voltage Rating	Operating Voltage
4.0	2.5
6.3	3.3
10	5.0
16	8.0
25	12
35	15



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





POWER DISSIPATION	
CASE CODE	MAXIMUM PERMISSIBLE POWER DISSIPATION AT + 25 °C (W) IN FREE AIR
P	0.025
Q	0.055
S	0.060
A	0.065
B/T	0.080

STANDARD PACKAGING QUANTITY		
CASE CODE	UNITS PER REEL	
	7" REEL	13" REEL
A	2500	10 000
B	2000	10 000
P	3000	10 000
Q	2500	10 000
S	2500	10 000
T	1500	8000

PRODUCT INFORMATION	
Conformal Coated Guide • Recommended Pad Layouts • Carrier Tape Information • Reflow Profiles	<a href="http://www.vishay.com/doc?40150">www.vishay.com/doc?40150</a>
Moisture Sensitivity	<a href="http://www.vishay.com/doc?40135">www.vishay.com/doc?40135</a>
SELECTOR GUIDES	
Solid Tantalum Selector Guide	<a href="http://www.vishay.com/doc?49053">www.vishay.com/doc?49053</a>
Solid Tantalum Chip Capacitors	<a href="http://www.vishay.com/doc?40091">www.vishay.com/doc?40091</a>
FAQ	
Frequently Asked Questions	<a href="http://www.vishay.com/doc?40110">www.vishay.com/doc?40110</a>



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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