

Solid Tantalum Chip Capacitors, TANTAMOUNT® Lead Frameless Molded



P and R Cases
Image is not to scale

FEATURES

- 0805 Footprint
- Wraparound lead (Pb)-free terminations:
P and R Cases
- 8 mm, 12 mm, 16 mm tape and reel packaging
available per EIA-481-1 and reeling per IEC
286-3, 7" [178 mm] standard
13" [330 mm] available



RoHS*
COMPLIANT

PERFORMANCE CHARACTERISTICS

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

Note: Refer to Doc. 40088

Capacitance Range: 1.0 µF to 47 µF

Capacitance Tolerance: ± 10 %, ± 20 % standard

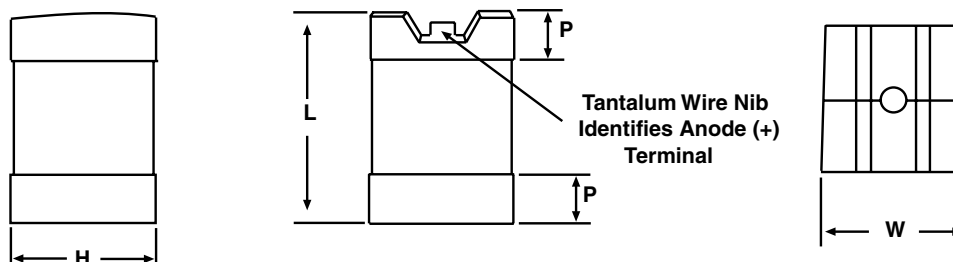
Voltage Rating: 3 WVDC to 20 WVDC

ORDERING INFORMATION

292D TYPE	106 CAPACITANCE	X0 CAPACITANCE TOLERANCE	010 DC VOLTAGE RATING AT + 85 °C	P CASE CODE	2 TERMINATION	T 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.	X0 = ± 20 % X9 = ± 10 %	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 volts).	See Ratings and Case Codes Table	2 = 100 % Tin 4 = Gold plated 8 = Solder Plated (60/40) Special Order	T = Tape and reel* 7" [178 mm] reel W = 13" [330 mm] reel *Cathode nearest sprocket hole

Note: Preferred Tolerance and reel sizes are in **bold**.

DIMENSIONS in inches [millimeters]



CASE	EIA	L	W	H	P
R	0805 [2012]	0.079 ± 0.008 [2.0 ± 0.2]	0.051 ± 0.008 [1.3 ± 0.2]	0.047 (Max.) [1.2 Max.]	0.020 ± 0.012 [0.5 ± 0.3]
P	0805 [2012]	0.079 ± 0.010 [2.0 ± 0.25]	0.053 ± 0.008 [1.35 ± 0.2]	0.053 ± 0.008 [1.35 ± 0.2]	0.020 ± 0.012 [0.5 ± 0.3]

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

RATINGS AND CASE CODES

μF	3 V	4 V	6.3 V	10 V	16 V	20 V
1.0				R	R	R
2.2		R	R	R	R	R
3.3		R		P/R	R	
4.7		R	R	P/R	R	
6.8		R	R	P/R		
10		R	P/R	P/R	P	
15		R	R	P		
22		P/R	P/R			
33		P/R	P/R*			
47	P					

* Preliminary values, contact factory for availability.

STANDARD RATINGS

CAPACITANCE (μF)	CASE CODE	PART NUMBER	MAX DCL AT + 25 °C (μA)	MAX DF AT + 25 °C (%)	MAX ESR at 100 kHz (Ω)	MAX RIPPLE 100 kHz Irms (AMPS)
3 WVDC AT + 85 °C, SURGE = 3.9 V . . 1.9 WVDC AT + 125 °C, SURGE = 2.9 V						
47	P	292D476X_003P2T	1.5	12	6.0	0.21
4 WVDC AT + 85 °C, SURGE = 5.2 V . . 2.7 WVDC AT + 125 °C, SURGE = 3.4 V						
2.2	R	292D225X_004R2T	0.5	6	7.6	0.057
3.3	R	292D335X_004R2T	0.5	6	7.6	0.057
4.7	R	292D475X_004R2T	0.5	6	6.3	0.063
6.8	R	292D685X_004R2T	0.5	6	5.5	0.067
10	R	292D106X_004R2T	0.5	6	5.1	0.070
15	R	292D156X_004R27	0.8	8	3.5	0.085
22	P	292D226X_004P2T	0.9	8	3.5	0.085
22	R	292D226X_004R2T	0.9	10	3.5	0.085
33	P	292D336X_004P2T	1.3	10	3.5	0.085
33	P	292D336X_004P2T_035	1.3	10	1.1	0.151
33	R	292D336X_004R2T	1.3	12	3.5	0.085
6.3 WVDC AT + 85 °C, SURGE = 8 V . . 4 WVDC AT + 125 °C, SURGE = 5 V						
2.2	R	292D225X_6R3R2T	0.5	10	7.6	0.057
4.7	R	292D475X_6R3R2T_035	0.6	6	2.0	0.086
4.7	R	292D475X_6R3R2T	0.6	6	3.4	0.086
6.8	R	292D685X_6R3R2T	0.5	6	5.0	0.071
6.8	R	292D685X_6R3R2T_035	0.5	6	2.0	0.067
10	P	292D106X_6R3P2T	0.6	6	3.5	0.085
10	R	292D106X_6R3R2T	0.6	6	1.2	0.144
15	R	292D156X_6R3R2T_035	0.9	10	3.5	0.085
15	R	292D15X_6R3R2_035	0.9	10	1.8	0.118
22	P	292D226X_6R3P2T	1.3	10	3.5	0.118
22	P	292D226X_6R3P2_035	0.9	10	1.1	0.151
22	R	292D226X_6R3R2T	1.4	10	3.5	0.085
33	P	292D336X_6R3P2T	2.1	12	3.5	0.085
33*	R*	292D336X_6R3R2T*	2.1*	12*	3.5*	0.085*

* Preliminary values, contact factory for availability.

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Vishay Sprague

STANDARD RATINGS						
CAPACITANCE (μ F)	CASE CODE	PART NUMBER	MAX DCL AT + 25 °C (μ A)	MAX DF AT + 25 °C (%)	MAX ESR AT 100 kHz (Ω)	MAX RIPPLE 100 kHz I _{rms} (AMPS)
10 WVDC AT+ 85 °C, SURGE = 13 V . . 7 WVDC AT + 125 °C, SURGE = 8 V						
1.0	R	292D105X_010R2	0.5	4	9.6	0.051
2.2	R	292D225X_010R2T	0.5	6	6.3	0.063
3.3	R	292D335X_010R2T	0.5	8	2.0	0.112
3.3	R	292D335X_010R2_035	0.5	8	1.0	0.158
3.3	P	292D335X_010P2T	0.5	8	2.0	0.112
4.7	P	292D475X_010P2T	0.5	8	5.0	0.071
4.7	R	292D475X_010R2T	0.5	8	5.0	0.071
4.7	R	292D475X_010R2T_035	0.5	8	2.0	0.112
6.8	P	292D685X_010P2T	0.7	8	2.0	0.112
6.8	R	292D685X_010R2T	0.7	8	2.0	0.112
10	P	292D106X_010P2T	1.0	8	2.0	0.112
10	R	292D106X_010R2T	1.0	8	2.0	0.112
15	P	292D156X_010P2T	1.5	8	3.5	0.085
15	P	292D156X_010P2_035	1.5	8	1.1	0.151
16 WVDC AT + 85 °C, SURGE = 20 V . . 10 WVDC AT + 125 °C, SURGE = 12 V						
1.0	R	292D105X_016R2	0.5	4	9.3	0.052
2.2	R	292D225X_016R2T	0.35	8	6.0	0.065
3.3	R	292D335X_016R2T	0.53	8	6.0	0.065
3.3	R	292D335X_016R2_035	0.53	8	3.0	0.091
4.7	R	292D475X_016R2T	0.75	8	6.0	0.065
10	P	292D106X_016P2T	1.6	8	6.0	0.065
20 WVDC AT + 85 °C, SURGE = 26 V . . 13 WVDC AT + 125 °C, SURGE = 16 V						
1.0	R	292D105X_020R2T	0.2	8	5.0	0.071
2.2	R	292D225X_020R2T	0.5	8	6.0	0.140



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