



CAPACITORS – Model 292D

EIA 0805 Case Tantalum Capacitors

	Max. Cap. (μF)	Rated Voltage (V)	Rated ESR Limit @ 100 kHz in Ohms
292D	15	10	1.1
	22	6.3	1.1
	33	4	1.1
0805 Tantalum Competition	15	10	6.0
	22	6.3	6.0
	33	4	6.0

292D Leadframeless Tantalum Molded Chip Capacitor vs. MLCC

Most ratings available with ESR typical values of 1 Ω or less, for LDO applications

FEATURES

- Tighter capacitance tolerances and increased stability over full temperature range (- 55 °C to + 125 °C)
- Higher capacitance values available at lower voltages in 0805 package with 1.2 mm and 1.6 mm maximum height
- No piezoelectric (microphonic) effect
- Better mechanical stress performance

APPLICATIONS

- Hearing aids
- High-end portables, phones
- Small portable information appliances
- PDA's



292D

Vishay Sprague

Solid Tantalum Chip Capacitors, Tantamount® Leadless Molded

FEATURES

- 0805 Footprint
- 1.2mm and 1.55mm max. height.
- Terminations: Wraparound Lead (Pb)-Free.
- 8mm tape and reel packaging available per EIA 481-1 and reeling per IEC 286-3. 7" [178mm] standard. 13" [330mm] available.

PERFORMANCE CHARACTERISTICS

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

Capacitance Range: 1.0µF to 47µF

Capacitance Tolerance: ± 10%, ± 20% standard

Voltage Rating: 4WVDC to 10WVDC

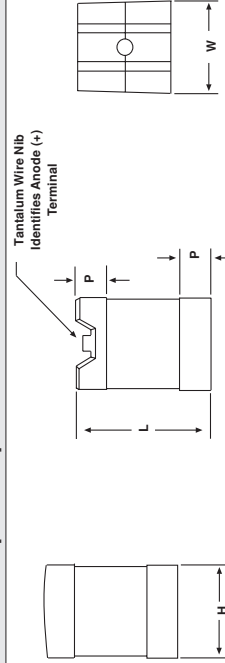
ORDERING INFORMATION

292D MODEL	106 CAPACITANCE	X ₀ CAPACITANCE TOLERANCE	010 DC VOLTAGE RATING @ +85°C	P CASE CODE	2 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.	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 = Solderable coating. Standard. 4 = Gold plated 8 = Solder Plated (60/40) Special Order.	T = Tape and reel* 7" [178mm] reel W = 13" [330mm] *Cathode nearest sprocket hole.

Note: Preferred Tolerance and Reel size 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]



Tantalum Wire Nib
Identifies Anode (+)
Terminal

STANDARD RATINGS						
CAPACITANCE (µF)	CASE CODE	PART NUMBER	MAX DCL @ +25°C (µA)	MAX DF @ +25°C (%)	MAX ESR @ 100K Hz (Ω)	MAX RIPPLE 100K Hz IRMS (AMPS)
47*	P*	292D476X_003P2T*	1.41*	8*	6*	0.065*
3WVDC @ +85°C, SURGE = 3.9V...1.9WVDC @ +125°C, SURGE = 2.9V						
4WVDC @ +85°C, SURGE = 5.2V...2.7WVDC @ +125°C, SURGE = 3.4V						
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_004R2T	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
6.3WVDC @ +85°C, SURGE = 8V...4WVDC @ +125°C, SURGE = 5V						
2.2	R	292D225X_6R3R2T	0.14	10	3.0	0.091
4.7	R	292D475X_6R6R2T	0.6	6	3.4	0.086
6.8	R	292D685X_6R3R2T	0.5	6	5	0.071
10	R	292D106X_6R3R2T	0.9	10	3.5	0.085
15	R	292D156X_6R3R2T	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*	0.9*	10*	3.5*	0.085*
33*	P*	292D336X_6R3P2T*	2.1*	10*	3.5*	0.085*
10WVDC @ +85°C, SURGE = 13V...7WVDC @ +125°C, SURGE = 8V						
1	R	292D105X_010R2	0.5	4	9.6	0.051
3.3	R	292D335X_010R2T	0.5	8	2.0	0.11
3.3	R	292D335X_010R2_035	0.5	8	1.0	0.158
3.3	P	292D335X_010P2T	0.5	8	2.0	0.11
4.7	P	292D475X_010P2T	0.5	8	5.0	0.071
4.7	R	292D475X_010R2T	0.5	8	5.0	0.071
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
16WVDC @ +85°C, SURGE = 20V...10WVDC @ +125°C, SURGE = 12V						
1	R	292D105X_016R2	0.5	4	9.3	0.052
2.2	R	292D225X_016R2T	0.35	8	6	0.065
3.3	R	292D335X_016R2T	0.53	8	6	0.065
3.3	R	292D335X_016R2_035	0.53	8	3	0.091
4.7	R	292D475X_016R2T	0.75	8	6	0.065
10*	P*	292D106X_016P2T*	1.6*	8*	6*	0.065*
20WVDC @ +85°C, SURGE = 26V...13WVDC @ +125°C, SURGE = 16V						
1.0	R	292D105X_020R2T	0.2	8	5.0	0.071
2.2*	R*	292D225X_020R2T*	0.44*	8*	5.0*	0.071*

Revision 01-Aug-03

*Preliminary values, contact factory for availability.