



Surface Mount Standard Tantalum Capacitors

293D Series Specifications



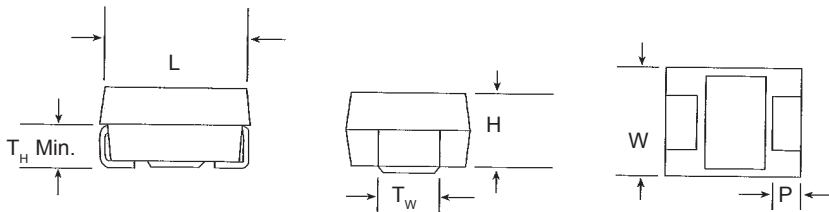
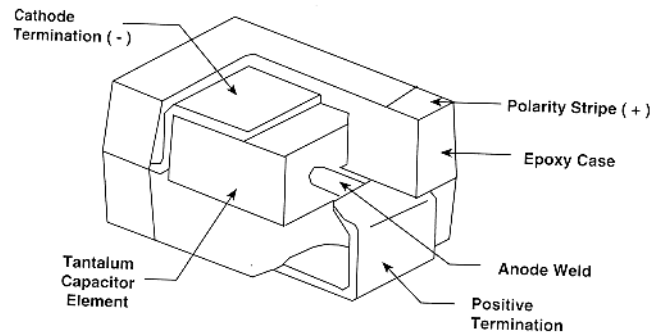
Part Number Determination

293D107X9010D2TE3					
293D	107	X9	010	D	2TE3
TYPE	CAPACITANCE CODE	TOLERANCE	VOLTAGE	CASE CODE	TERMINATION & PACKAGING
Std Tantalum	in pF 2 significant digits and 3rd representing the number of zeros to follow	X0=±20% X9=±10% X5=±5%* *special order	004=4V 6R3=6.3V 010=10V 016=16V 020=20V 025=25V 035=35V 050=50V	A=3216 B=3528 C=6032 D=7343 E=7343H	2T=Solderable Coating, 7" reel 2W=Solderable Coating, 13" reel 2TE3=100% tin terminations, 7" reel 2WE3=100% tin terminations, 13" reel 8T=90/10 SnPb solder plate terminations, 7" reel 8W=90/10 SnPb solder plate terminations, 13" reel

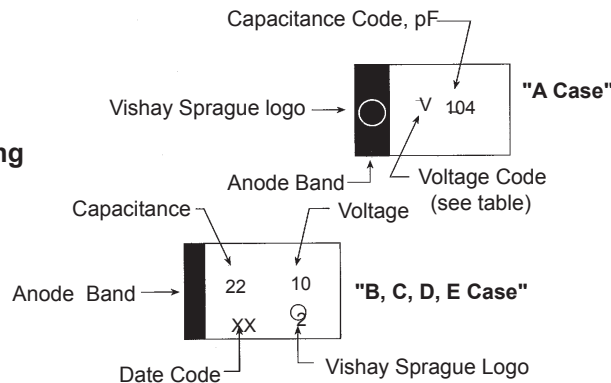
Package Dimensions (in/mm)

Case Code	EIA Size	L	W	H	P	T _w	T _H Min
A	3216	.126±.008 3.2±.20	.063±.008 1.6±.20	.063±.008 1.6±.20	.031±.012 .80±.30	.047±.004 1.2±.10	.028 .70
B	3528	.138±.008 3.5±.20	.110±.008 2.8±.20	.075±.008 1.9±.20	.031±.012 .80±.30	.087±.004 2.2±.10	.028 .70
C	6032	.236±.012 6.0±.30	.126±.012 3.2±.30	.098±.012 2.5±.30	.051±.012 1.3±.30	.087±.004 2.2±.10	.039 1.0
D	7343	.287±.012 7.3±.30	.170±.012 4.3±.30	.110±.012 2.8±.30	.051±.012 1.3±.30	.095±.004 2.5±.10	.039 1.0
E	7343H	.287±.012 7.3±.30	.170±.012 4.3±.30	.158±.012 4.0±.30	.051±.012 1.3±.30	.095±.004 2.4±.10	.039 1.0
P	2012-12	.079±.020 2.0±.008	.049±.008 1.25±.20	.047 Max. 1.2 Max	.020±.008 .52±.20	.047±.004 1.2±.10	.012 .30

Construction



Marking



Volts	4	6.3	10	16	20	25	35	50
Code	G	J	A	C	D	E	V	T



Surface Mount Standard Tantalum Capacitors

293D Series Electrical Characteristics



Part Number	Cap (uF)	Case Code	Max. DC Leakage @ +25°C (uA)	Max DF @ +25°C 120 Hz (%)	Max ESR @ +25°C 100kHz (Ohms)	Max. Ripple 100kHz Irms (Amps)	
4V	293D687X9004E2TE3	680.0	E	27.2	12	0.5	0.57
6.3V	293D226X96R3A2TE3	22.0	A	1.2	6	2.9	0.16
	293D336X96R3B2TE3	33.0	B	1.7	6	1.9	0.21
	293D686X96R3C2TE3	68.0	C	3.5	6	0.8	0.37
	293D477X96R3E2TE3	470.0	E	28.2	10	0.5	0.57
	293D106X9010A2TE3	10.0	A	1.0	6	3.4	0.15
10V	293D106X9010B2TE3	10.0	B	1.0	6	2.5	0.18
	293D106X9010C2TE3	10.0	C	1.0	6	1.8	0.25
	293D156X9010A2TE3	25.0	A	1.5	6	2.9	0.16
	293D226X9010A2TE3	22.0	A	2.2	8	2.5	0.17
	293D476X9010C2TE3	47.0	C	4.0	6	1.1	0.32
	293D686X9010C2TE3	68.0	C	6.8	6	1.0	0.38
	293D107X9010C2TE3	100.0	C	10	8	0.9	0.35
	293D107X9010D2TE3	100.0	D	8.4	8	0.6	0.50
	293D157X9010D2TE3	150.0	D	15.0	8	0.6	0.50
	293D227X9010D2TE3	220.0	D	22	8	0.6	0.50
	293D337X9010E2TE3	330.0	E	33	10	0.5	0.57
	16V	293D105X9016A2TE3	1.0	A	0.5	4	9.3
293D225X9016A2TE3		2.2	A	0.5	6	5.9	0.11
293D335X9016A2TE3		3.3	A	0.5	6	5.0	0.12
293D475X9016A2TE3		4.7	A	0.7	6	5.0	0.12
293D685X9016A2TE3		6.8	A	1.0	6	4.2	0.13
293D106X9016A2TE3		10.0	A	1.4	6	3.0	0.15
293D106X9016B2TE3		10.0	B	1.6	6	2.0	0.21
293D106X9016C2TE3		10.0	C	1.6	6	1.8	0.25
293D156X9016C2TE3		15.0	C	2.0	6	1.5	0.27
293D226X9016B2TE3		22.0	B	2.9	6	1.9	0.21
293D226X9016C2TE3		22.0	C	2.9	6	1.4	0.28
293D336X9016B2TE3		33.0	B	5.3	6	1.8	0.22
293D336X9016C2TE3		33.0	C	4.4	6	1.1	0.32
293D476X9016C2TE3		47.0	C	7.5	6	1.0	0.33
293D476X9016D2TE3		47.0	D	6.3	6	0.7	0.46
293D686X9016D2TE3		68.0	D	9.2	6	0.6	0.50
293D107X9016D2TE3		100.0	D	16	8	0.6	0.50
293D157X9016E2TE3		150.0	E	24	8	0.5	0.57
20V	293D105X9020A2TE3	1.0	A	0.5	4	8.4	0.09
	293D155X9020A2TE3	1.5	A	0.5	6	6.3	0.11
	293D225X9020B2TE3	2.2	B	0.5	6	3.5	0.16
	293D335X9020A2TE3	3.3	A	0.6	6	5.9	0.11
	293D335X9020B2TE3	3.3	B	0.6	6	3.0	0.17
	293D475X9020A2TE3	4.7	A	0.9	6	5.0	0.12
	293D685X9020B2TE3	6.8	B	1.4	6	2.5	0.18
	293D685X9020C2TE3	6.8	C	1.4	6	1.9	0.24
	293D106X9020B2TE3	10.0	B	1.7	6	2.5	0.18
	293D156X9020B2TE3	15.0	B	2.5	6	2.3	0.19
	293D226X9020B2TE3	22.0	B	4.4	6	2.1	0.20
	293D226X9020C2TE3	22.0	C	4.4	6	1.1	0.32
	293D336X9020C2TE3	33.0	C	6.6	6	1.0	0.33
	293D336X9020D2TE3	33.0	D	5.6	6	0.7	0.46
	293D476X9020D2TE3	47.0	D	7.9	6	0.7	0.46
	293D107X9020E2TE3	100.0	E	20.0	8	0.5	0.57

Part Number	Cap (uF)	Case Code	Max. DC Leakage @ +25°C (uA)	Max DF @ +25°C 120 Hz (%)	Max ESR @ +25°C 100kHz (Ohms)	Max. Ripple 100kHz Irms (Amps)	
25V	293D105X9025A2TE3	1.0	A	0.5	4	7.6	0.10
	293D225X9025A2TE3	2.2	A	0.5	6	6.3	0.11
	293D475X9025B2TE3	4.7	B	1.2	6	2.8	0.17
	293D685X9025B2TE3	6.8	B	1.7	6	2.4	0.19
	293D106X9025C2TE3	10.0	C	2.1	6	1.5	0.27
	293D106X9025D2TE3	10.0	D	2.5	6	1.0	0.39
	293D156X9025D2TE3	15.0	D	3.2	6	0.8	0.43
	293D226X9025D2TE3	22.0	D	4.6	6	0.7	0.46
	293D336X9025D2TE3	33.0	D	8.3	6	0.7	0.46
	293D154X9035A2TE3	0.15	A	0.5	4	18.0	0.07
35V	293D224X9035A2TE3	0.22	A	0.5	4	15	0.07
	293D334X9035A2TE3	0.33	A	0.5	4	13.0	0.08
	293D474X9035A2TE3	0.47	A	0.5	4	10	0.09
	293D684X9035A2TE3	0.68	A	0.5	4	7.6	0.10
	293D105X9035A2TE3	1.0	A	0.5	4	7.5	0.10
	293D105X9035B2TE3	1.0	B	0.5	4	5.0	0.13
	293D155X9035B2TE3	1.5	B	0.5	6	4.2	0.14
	293D155X9035C2TE3	1.5	C	0.5	6	3.8	0.17
	293D225X9035C2TE3	2.2	B	0.7	6	2.9	0.20
	293D225X9035B2TE3	2.2	C	0.7	6	3.8	0.15
	293D335X9035B2TE3	3.3	B	1.0	6	3.5	0.16
	293D475X9035C2TE3	4.7	C	1.4	6	1.9	0.24
	293D685X9035C2TE3	6.8	C	2.4	6	1.8	0.25
	293D685X9035D2TE3	6.8	D	2.4	6	1.1	0.37
	293D106X9035C2TE3	10.0	C	3.5	6	1.6	0.26
	293D106X9035D2TE3	10.0	D	2.9	6	0.8	0.43
	293D156X9035D2TE3	15.0	D	4.4	6	0.7	0.46
	293D226X9035D2TE3	22.0	D	7.7	6	0.6	0.52
293D226X9035E2TE3	22.0	E	7.7	6	0.6	0.52	
50V	293D104X9050A2TE3	0.1	A	0.5	4	19	0.06
	293D105X9050B2TE3	1.0	B	0.5	4	4.6	0.16
	293D105X9050C2TE3	1.0	C	0.5	4	4.6	0.1
	293D335X9050D2TE3	3.3	D	1.7	6	1.7	0.30
	293D475X9050D2TE3	4.7	D	2.4	6	1.2	0.37
	293D685X9050D2TE3	6.8	D	3.4	6	0.9	0.41

land patterns on following page



Surface Mount Standard Tantalum Capacitors

293D Series Electrical Characteristics



Land Pattern for Reflow Solder

CASE CODE	G Min	J Min	K Nom	L Nom	M Nom
A	0.71 (1.80)	.085 (2.15)	.053 (1.35)	.222 (5.65)	.048 (1.23)
B	.110 (2.80)	.085 (2.15)	.065 (1.65)	.234 (5.95)	.048 (1.23)
C	.110 (2.80)	.106 (2.70)	.124 (3.15)	.337 (8.55)	.050 (1.28)
D	.118 (3.00)	.106 (2.70)	.175 (4.45)	.388 (9.85)	.050 (1.28)
E	.118 (3.00)	.106 (2.70)	.175 (4.45)	.388 (9.85)	.050 (1.28)

Land Pattern for Wave Solder

CASE CODE	G Min	J Min	K Nom	L Nom	M Nom
A	.034 (0.87)	.085 (2.15)	.053 (1.35)	.222 (5.65)	.048 (1.23)
B	.061 (1.54)	.085 (2.15)	.065 (1.65)	.234 (5.95)	.048 (1.23)
C	.061 (1.54)	.106 (2.70)	.124 (3.15)	.337 (8.55)	.050 (1.28)
D	.066 (1.68)	.106 (2.70)	.175 (4.45)	.388 (9.85)	.050 (1.28)
E	.066 (1.68)	.106 (2.70)	.175 (4.45)	.388 (9.85)	.050 (1.28)

