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TPS Series

Low ESR



FEATURES

- Low ESR series of robust MnO_2 solid electrolyte capacitors
- CV range: 0.15-1500µF / 2.5-50V
- 14 case sizes available
- Power supply applications

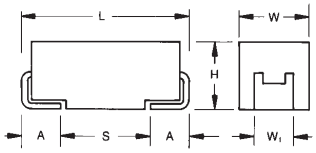
LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT

SnPb termination option is not RoHS compliant.

APPLICATIONS

- General medium power DC/DC convertors



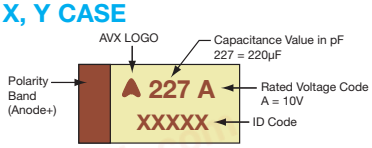
CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H+0.20 (0.008) -0.10 (0.004)	W_1±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)	S Min.
A	1206	3216-18	3.20 (0.126)	1.60 (0.063)	1.60 (0.063)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
B	1210	3528-21	3.50 (0.138)	2.80 (0.110)	1.90 (0.075)	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
C	2312	6032-28	6.00 (0.236)	3.20 (0.126)	2.60 (0.102)	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
D	2917	7343-31	7.30 (0.287)	4.30 (0.169)	2.90 (0.114)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
E	2917	7343-43	7.30 (0.287)	4.30 (0.169)	4.10 (0.162)	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
F	2312	6032-20	6.00 (0.236)	3.20 (0.126)	2.00 (0.079) max.	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
P	0805	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059) max.	1.00 ±0.10 (0.039 ±0.004)	0.50 (0.020)	0.85 (0.033)
R	0805	2012-12	2.05 (0.081)	1.30 (0.051)	1.20 (0.047) max.	1.00 ±0.10 (0.039 ±0.004)	0.50 (0.020)	0.85 (0.033)
S	1206	3216-12	3.20 (0.126)	1.60 (0.063)	1.20 (0.047) max.	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
T	1210	3528-12	3.50 (0.138)	2.80 (0.110)	1.20 (0.047) max.	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
V	2924	7361-38	7.30 (0.287)	6.10 (0.240)	3.55 (0.140)	3.10 (0.120)	1.30 (0.051)	4.40 (0.173)
W	2312	6032-15	6.00 (0.236)	3.20 (0.126)	1.50 (0.059) max.	2.20 (0.087)	1.30 (0.051)	2.90 (0.114)
X	2917	7343-15	7.30 (0.287)	4.30 (0.169)	1.50 (0.059) max.	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)
Y	2917	7343-20	7.30 (0.287)	4.30 (0.169)	2.00 (0.079) max.	2.40 (0.094)	1.30 (0.051)	4.40 (0.173)

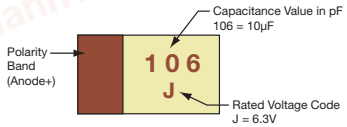
W1 dimension applies to the termination width for A dimensional area only.

MARKING

A, B, C, D, E, F, S, T, V, W, X, Y CASE



P, R CASE



HOW TO ORDER

TPS	C	107	M	010	R	0100	–
Type	**Case Size** See table above	**Capacitance Code** pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	**Tolerance** K = ±10% M = ±20%	**Rated DC Voltage** 002 = 2.5Vdc 004 = 4Vdc 006 = 6.3Vdc 010 = 10Vdc 016 = 16Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc	**Packaging** R = Pure Tin 7" Reel S = Pure Tin 13" Reel A = Gold Plating 7" Reel B = Gold Plating 13" Reel H = Tin Lead 7" Reel (Contact Manufacturer) K = Tin Lead 13" Reel (Contact Manufacturer) H, K = Non RoHS	**ESR in mΩ**	**Additional characters may be added for special requirements** V = Dry pack Option (selected codes only)

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C									
Capacitance Range:	0.15 µF to 1500 µF									
Capacitance Tolerance:	±10%; ±20%									
Rated Voltage (V_R)	≤ +85°C:	2.5	4	6.3	10	16	20	25	35	50
Category Voltage (V_C)	≤ +125°C:	1.7	2.7	4	7	10	13	17	23	33
Surge Voltage (V_S)	≤ +85°C:	3.3	5.2	8	13	20	26	32	46	65
Surge Voltage (V_S)	≤ +125°C:	2.2	3.4	5	8	13	16	20	28	40
Temperature Range:	-55°C to +125°C									
Environmental Classification:	55/125/56 (IEC 68-2)									
Reliability:	1% per 1000 hours at 85°C, V_R with 0.1Ω/V series impedance, 60% confidence level									
Termination Finished:	Sn Plating (standard), Gold and SnPb Plating upon request									
	For AEC-Q200 availability, please contact AVX									

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CAPACITANCE AND RATED VOLTAGE RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V_R) to 85°C								
µF	Code	2.5V (e)	4V (G)	6.3V (J)	10V (A)	16V (C)	20V (D)	25V (E)	35V (V)	50V (T)
0.15	154									A(9000)
0.22	224								A(6000)	A(7000)
0.33	334								A(6000)	A(7000)
0.47	474							A(7000)	A(6000) B(4000)	A(6500), B(6000) C(2300)
0.68	684							A(6000)	A(6000)	B(4000)
1.0	105				R(9000)	A(6200)	A(3000), R(6000) S(6000), T(2000)	A(4000) R(2500,4000)	A(3000) B(2000)	B(3000) C(2500)
1.5	155						A(3000)	A(3000) B(1800)	A(3000) B(2500)	C(1500,2000)
2.2	225			R(7000)	A(1800)	A(1800,3500) T(2000)	A(3000), B(1700)	A(2500) B(900,1200,2500)	A(1500), B(750, 1500,2000), C(1000)	C(1500) D(1200)
3.3	335			A(2100)	T(1500)	A(3500), B(2500)	A(2500) B(1300)	A(1000,1500) B(750,1500,2000)	B(1000) C(700)	C(1000) D(800)
4.7	475			S(4000)	A(1400), B(1400) R(3000,5000)	A(2000) B(800,1500)	A(1800) B(750,1000)	B(700,900,1500) C(700)	B(700,1500) C(600), D(700)	C(800) D(300,500,700)
6.8	685			A(1800)	A(1800), B(1300) T(1800)	A(1500) B(600,1200)	A(1000) B(600,1000) C(700)	B(700) C(500,600,700)	C(350) D(150,400,500)	D(200, 300, 500,600)
10	106		R(3000)	A(1500), B(1500) R(1000,1500,3000) T(1000)	A(900,1800), B(1000) P(2000)(M), S(900) T(1000,2000)	A(1000), B(500,800) C(500), T(800,1000) W(500,600)	B(500,1000) C(500,700) W(250, 500)	B(1800) C(300,500) D(500)	C(600) D(125,300) E(200), Y(250)	D(500) E(250,300, 400,500)
15	156			A(700,1500)	A(1000) B(450,600), C(700) T(1200)	B(500,800) C(300,700)	B(500) C(400,450)	C(220,300) D(100,300)	C(350,450) D(100,300) Y(250)	E(250) V(250)
22	226			A(500,900) B(375,600) C(500), S(900)	A(900) B(400,500,700) C(300), T(800)	B(400,600) C(150,250,300,375) D(700), W(500)	B(400,600) C(100,150,400) D(200,300)	C(275,400) D(100,200,300)	D(125,200,300,400) E(125,200,300) Y(200)	
33	336			A(600) B(250,350,450,600) T(800)	A(700) B(250,425,500,650) C(150,375,500) W(350)	B(350,500) C(100,150,225,300) D(200), W(140,175, 250,400,500) Y(300,400)	C(300) D(100,200)	D(100,200,300) E(100,175, 200,300) Y(200)	D(200,300) E(100,250,300) V(200)	
47	476		A(500)	A(800) B(250,350,500) C(300), T(1200)	B(250,350,500,650) C(200,350) D(100,300) W(125,150,250)	C(110,350) D(80,100,150,200) W(200) X(180), Y(250)	D(75,100,200) E(70,125,150, 200,250) X(200)	D(125,150,250) E(80,100,125) (Y250)	E(200,250) V(150,200)	
68	686			B(250,350,500) C(150,200) W(110,125,250)	B(600) C(80,100,200,300) D(100,150), W(100,150) Y(100,200)	C(125,200) D(70,100,150) F(200), X(150) Y(150,200,250)	D(70,150, 200,300) E(125,150,200) Y(200)	E(125,200) V(80,95,150,200)	V(150,200)	
100	107	B(200)	B(200,250, 350,500) W(100)	B(250,400) C(75,150), D(300) W(100,150) Y(100)	B(400)(M) C(75,100,150,200) D(50,65,80,100,125, 150), E(125) W(150) X(85,150,200) Y(100,150,200)	C(200) D(60,100,125,150) E(55,100,125,150) F(150,200)(M) Y(100,150,200)	D(85,100,150) E(100,150,200) V(60,85,100,200)	E(150)(M), V(100)		
150	157	B(150)	B(250) C(70,80)	C(50,90,150,200,250) D(50,125), Y(40,50)	C(150), D(50,85,100), E(100), F(200), X(100)(M) Y(100,150,200)	D(60,85,100,125,150) E(100), V(45,75) Y(200)(M)	V(80)	V(150)(M)		
220	227	B(150, 200,600) D(45)	D(40,50,100) Y(40,50,75)	C(70,100,125,250) D(50,100,125) E(100), F(200) Y(100,150)	D(40,50,100,150) E(50,60,70,100, 125,150) Y(100,150,200)	E(100,150) V(50,75,100,150)				
330	337	Y(40)	C(100) D(35,45,100) F(200) X(100)	C(80,100) D(45,50,70,100) E(50,100,125,150) V(100), Y(75,100,150)	D(50,65,100,150) E(40,50,60,100) V(40,60,100)	E(200)(M)				
470	477	D(35) F(200) Y(100)	D(45,100) E(35,45,100)	D(45,60,100,200) E(45,50,60,100,200) V(40,55,100), Y(150)	E(45,50,60,100,200) V(40,60,100)					
680	687	D(35,50) E(35,50) Y(100)	D(45,60,100) E(40,60,100)	E(45,60,100) V(35,40,50)						
1000	108	E(30,40) Y(100)(M)	E(40,60) V(25,35,40,50)	E(100)(M), V(40,50)(M)						
1500	158	D(100) E(50) V(30,40)(M)	E(50,75) V(50,75)(M)							

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes (M tolerance only)

Engineering samples - please contact manufacturer

*Codes under development - subject to change

ESR limits quoted in brackets (milliohms)

NOTE: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

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TPS Series

Low ESR

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
2.5 Volt @ 85°C													
TPSB107*002#0200	B	100	2.5	85	1.7	125	2.5	8	200	1	0.652	0.587	0.261
TPSB157*002#0150	B	150	2.5	85	1.7	125	3	10	150	1	0.753	0.677	0.301
TPSB227*002#0150	B	220	2.5	85	1.7	125	4.4	16	150	1	0.753	0.677	0.301
TPSB227*002#0200	B	220	2.5	85	1.7	125	4.4	16	200	1	0.652	0.587	0.261
TPSB227*002#0600	B	220	2.5	85	1.7	125	4.4	16	600	1	0.376	0.339	0.151
TPSD227*002#0045	D	220	2.5	85	1.7	125	5.5	8	45	1	1.826	1.643	0.730
TPSY337*002#0040	Y	330	2.5	85	1.7	125	8.2	8	40	1[1)]	1.768	1.591	0.707
TPSD477*002#0035	D	470	2.5	85	1.7	125	11.6	8	35	1	2.070	1.863	0.828
TPSF477*002#0200	F	470	2.5	85	1.7	125	11.8	12	200	1	0.707	0.636	0.283
TPSY477*002#0100	Y	470	2.5	85	1.7	125	11	12	100	1[1)]	1.118	1.006	0.447
TPSD687*002#0035	D	680	2.5	85	1.7	125	17	16	35	1	2.070	1.863	0.828
TPSD687*002#0050	D	680	2.5	85	1.7	125	17	16	50	1	1.732	1.559	0.693
TPSE687*002#0035	E	680	2.5	85	1.7	125	17	10	35	1[1)]	2.171	1.954	0.868
TPSE687*002#0050	E	680	2.5	85	1.7	125	17	10	50	1[1)]	1.817	1.635	0.727
TPSY687*002#0100	Y	680	2.5	85	1.7	125	17	12	100	1[1)]	1.118	1.006	0.447
TPSE108*002#0030	E	1000	2.5	85	1.7	125	25	14	30	1[1)]	2.345	2.111	0.938
TPSE108*002#0040	E	1000	2.5	85	1.7	125	25	14	40	1[1)]	2.031	1.828	0.812
TPSY108M002#0100	Y	1000	2.5	85	1.7	125	25	30	100	1[1)]	1.118	1.006	0.447
TPSD158*002#0100	D	1500	2.5	85	1.7	125	37.5	60	100	1	1.125	1.102	0.490
TPSE158*002#0050	E	1500	2.5	85	1.7	125	37.5	20	50	1[1)]	1.817	1.635	0.727
TPSV158M002#0030	V	1500	2.5	85	1.7	125	30	20	30	1[1)]	2.887	2.598	1.155
TPSV158M002#0040	V	1500	2.5	85	1.7	125	30	20	40	1[1)]	2.500	2.250	1.000
4 Volt @ 85°C													
TPSR106*004#3000	R	10	4	85	2.7	125	0.5	6	3000	1	0.135	0.122	0.054
TPSA476*004#0500	A	47	4	85	2.7	125	1.9	8	500	1	0.387	0.349	0.155
TPSB107*004#0200	B	100	4	85	2.7	125	4	8	200	1	0.652	0.587	0.261
TPSB107*004#0250	B	100	4	85	2.7	125	4	8	250	1	0.583	0.525	0.233
TPSB107*004#0350	B	100	4	85	2.7	125	4	8	350	1	0.493	0.444	0.197
TPSB107*004#0500	B	100	4	85	2.7	125	4	8	500	1	0.412	0.371	0.165
TPSW107*004#0100	W	100	4	85	2.7	125	4	6	100	1	0.949	0.854	0.379
TPSB157*004#0250	B	150	4	85	2.7	125	6	10	250	1	0.583	0.525	0.233
TPSC157*004#0070	C	150	4	85	2.7	125	6	6	70	1	1.254	1.128	0.501
TPSC157*004#0080	C	150	4	85	2.7	125	6	6	80	1	1.173	1.055	0.469
TPSD227*004#0040	D	220	4	85	2.7	125	8.8	8	40	1	1.936	1.743	0.775
TPSD227*004#0050	D	220	4	85	2.7	125	8.8	8	50	1	1.732	1.559	0.693
TPSD227*004#0100	D	220	4	85	2.7	125	8.8	8	100	1	1.225	1.102	0.490
TPSY227*004#0040	Y	220	4	85	2.7	125	8.8	8	40	1[1)]	1.768	1.591	0.707
TPSY227*004#0050	Y	220	4	85	2.7	125	8.8	8	50	1[1)]	1.581	1.423	0.632
TPSY227*004#0075	Y	220	4	85	2.7	125	8.8	8	75	1[1)]	1.291	1.162	0.516
TPSC337*004#0100	C	330	4	85	2.7	125	13.2	8	100	1	1.049	0.944	0.420
TPSD337*004#0035	D	330	4	85	2.7	125	13.2	8	35	1	2.070	1.863	0.828
TPSD337*004#0045	D	330	4	85	2.7	125	13.2	8	45	1	1.826	1.643	0.730
TPSD337*004#0100	D	330	4	85	2.7	125	13.2	8	100	1	1.225	1.102	0.490
TPSF337*004#0200	F	330	4	85	2.7	125	13.2	10	200	1	0.707	0.636	0.283
TPSX337*004#0100	X	330	4	85	2.7	125	13.2	8	100	1[1)]	1.000	0.900	0.400
TPSD477*004#0045	D	470	4	85	2.7	125	18.8	12	45	1	1.826	1.643	0.730
TPSD477*004#0100	D	470	4	85	2.7	125	18.8	12	100	1	1.225	1.102	0.490
TPSE477*004#0035	E	470	4	85	2.7	125	18.8	10	35	1[1)]	2.171	1.954	0.868
TPSE477*004#0045	E	470	4	85	2.7	125	18.8	10	45	1[1)]	1.915	1.723	0.766
TPSE477*004#0100	E	470	4	85	2.7	125	18.8	10	100	1[1)]	1.285	1.156	0.514
TPSD687*004#0045	D	680	4	85	2.7	125	27.2	14	45	1	1.826	1.643	0.730
TPSD687*004#0060	D	680	4	85	2.7	125	27.2	14	60	1	1.581	1.423	0.632
TPSD687*004#0100	D	680	4	85	2.7	125	27.2	14	100	1	1.225	1.102	0.490
TPSE687*004#0040	E	680	4	85	2.7	125	27.2	10	40	1[1)]	2.031	1.828	0.812
TPSE687*004#0060	E	680	4	85	2.7	125	27.2	10	60	1[1)]	1.658	1.492	0.663
TPSE687*004#0100	E	680	4	85	2.7	125	27.2	10	100	1[1)]	1.285	1.156	0.514
TPSE108*004#0040	E	1000	4	85	2.7	125	40	14	40	1[1)]	2.031	1.828	0.812
TPSE108*004#0060	E	1000	4	85	2.7	125	40	14	60	1[1)]	1.658	1.492	0.663
TPSV108*004#0025	V	1000	4	85	2.7	125	40	16	25	1[1)]	3.162	2.846	1.265
TPSV108*004#0035	V	1000	4	85	2.7	125	40	16	35	1[1)]	2.673	2.405	1.069
TPSV108*004#0040	V	1000	4	85	2.7	125	40	16	40	1[1)]	2.500	2.250	1.000
TPSV108*004#0050	V	1000	4	85	2.7	125	40	16	50	1[1)]	2.236	2.012	0.894
TPSE158*004#0050	E	1500	4	85	2.7	125	60	30	50	1[1)]	1.817	1.635	0.727
TPSE158*004#0075	E	1500	4	85	2.7	125	60	30	75	1[1)]	1.483	1.335	0.593
TPSV158M004#0050	V	1500	4	85	2.7	125	60	30	50	1[1)]	2.236	2.012	0.894
TPSV158M004#0075	V	1500	4	85	2.7	125	60	30	75	1[1)]	1.826	1.643	0.730
6.3 Volt @ 85°C													
TPSR225*006#7000	R	2.2	6.3	85	4	125	0.5	6	7000	1	0.089	0.080	0.035
TPSA335*006#2100	A	3.3	6.3	85	4	125	0.5	6	2100	1	0.189	0.170	0.076
TPSS475*006#4000	S	4.7	6.3	85	4	125	0.5	6	4000	1	0.127	0.115	0.051

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSA685*006#1800	A	6.8	6.3	85	4	125	0.5	6	1800	1	0.204	0.184	0.082
TPSA106*006#1500	A	10	6.3	85	4	125	0.6	6	1500	1	0.224	0.201	0.089
TPSB106*006#1500	B	10	6.3	85	4	125	0.6	6	1500	1	0.238	0.214	0.095
TPSR106*006#1000	R	10	6.3	85	4	125	0.6	8	1000	1	0.235	0.211	0.094
TPSR106*006#1500	R	10	6.3	85	4	125	0.6	8	1500	1	0.191	0.172	0.077
TPSR106*006#3000	R	10	6.3	85	4	125	0.6	8	3000	1	0.135	0.122	0.054
TPST106*006#1000	T	10	6.3	85	4	125	0.6	6	1000	1	0.283	0.255	0.113
TPSA156*006#0700	A	15	6.3	85	4	125	0.9	6	700	1	0.327	0.295	0.131
TPSA156*006#1500	A	15	6.3	85	4	125	0.9	6	1500	1	0.224	0.201	0.089
TPSA226*006#0500	A	22	6.3	85	4	125	1.4	6	500	1	0.387	0.349	0.155
TPSA226*006#0900	A	22	6.3	85	4	125	1.4	6	900	1	0.289	0.260	0.115
TPSB226*006#0375	B	22	6.3	85	4	125	1.4	6	375	1	0.476	0.428	0.190
TPSB226*006#0600	B	22	6.3	85	4	125	1.4	6	600	1	0.376	0.339	0.151
TPSC226*006#0500	C	22	6.3	85	4	125	1.4	6	500	1	0.469	0.422	0.188
TPSS226*006#0900	S	22	6.3	85	4	125	1.3	10	900	1	0.269	0.242	0.107
TPSA336*006#0600	A	33	6.3	85	4	125	2.1	8	600	1	0.354	0.318	0.141
TPSB336*006#0250	B	33	6.3	85	4	125	2.1	6	250	1	0.583	0.525	0.233
TPSB336*006#0350	B	33	6.3	85	4	125	2.1	6	350	1	0.493	0.444	0.197
TPSB336*006#0450	B	33	6.3	85	4	125	2.1	6	450	1	0.435	0.391	0.174
TPSB336*006#0600	B	33	6.3	85	4	125	2.1	6	600	1	0.376	0.339	0.151
TPST336*006#0800	T	33	6.3	85	4	125	2.1	10	800	1	0.316	0.285	0.126
TPSA476*006#0800	A	47	6.3	85	4	125	2.8	10	800	1	0.306	0.276	0.122
TPSB476*006#0250	B	47	6.3	85	4	125	3	6	250	1	0.583	0.525	0.233
TPSB476*006#0350	B	47	6.3	85	4	125	3	6	350	1	0.493	0.444	0.197
TPSB476*006#0500	B	47	6.3	85	4	125	3	6	500	1	0.412	0.371	0.165
TPSC476*006#0300	C	47	6.3	85	4	125	3	6	300	1	0.606	0.545	0.242
TPST476*006#1200	T	47	6.3	85	4	125	2.8	10	1200	1	0.258	0.232	0.103
TPSB686*006#0250	B	68	6.3	85	4	125	4	8	250	1	0.583	0.525	0.233
TPSB686*006#0350	B	68	6.3	85	4	125	4	8	350	1	0.493	0.444	0.197
TPSB686*006#0500	B	68	6.3	85	4	125	4	8	500	1	0.412	0.371	0.165
TPSC686*006#0150	C	68	6.3	85	4	125	4.3	6	150	1	0.856	0.771	0.343
TPSC686*006#0200	C	68	6.3	85	4	125	4.3	6	200	1	0.742	0.667	0.297
TPSW686*006#0110	W	68	6.3	85	4	125	4.3	6	110	1	0.905	0.814	0.362
TPSW686*006#0125	W	68	6.3	85	4	125	4.3	6	125	1	0.849	0.764	0.339
TPSW686*006#0250	W	68	6.3	85	4	125	4.3	6	250	1	0.600	0.540	0.240
TPSB107*006#0250	B	100	6.3	85	4	125	6.3	10	250	1	0.583	0.525	0.233
TPSB107*006#0400	B	100	6.3	85	4	125	6.3	10	400	1	0.461	0.415	0.184
TPSC107*006#0075	C	100	6.3	85	4	125	6.3	6	75	1	1.211	1.090	0.484
TPSC107*006#0150	C	100	6.3	85	4	125	6.3	6	150	1	0.856	0.771	0.343
TPSD107*006#0300	D	100	6.3	85	4	125	6.3	6	300	1	0.707	0.636	0.283
TPSW107*006#0100	W	100	6.3	85	4	125	6.3	6	100	1	0.949	0.854	0.379
TPSW107*006#0150	W	100	6.3	85	4	125	6.3	6	150	1	0.775	0.697	0.310
TPSY107*006#0100	Y	100	6.3	85	4	125	6.3	6	100	1[1)]	1.118	1.006	0.447
TPSC157*006#0050	C	150	6.3	85	4	125	9.5	6	50	1	1.483	1.335	0.593
TPSC157*006#0090	C	150	6.3	85	4	125	9.5	6	90	1	1.106	0.995	0.442
TPSC157*006#0150	C	150	6.3	85	4	125	9.5	6	150	1	0.856	0.771	0.343
TPSC157*006#0200	C	150	6.3	85	4	125	9.5	6	200	1	0.742	0.667	0.297
TPSC157*006#0250	C	150	6.3	85	4	125	9.5	6	250	1	0.663	0.597	0.265
TPSD157*006#0050	D	150	6.3	85	4	125	9.5	6	50	1	1.732	1.559	0.693
TPSD157*006#0125	D	150	6.3	85	4	125	9.5	6	125	1	1.095	0.986	0.438
TPSY157*006#0040	Y	150	6.3	85	4	125	9.5	6	40	1[1)]	1.768	1.591	0.707
TPSY157*006#0050	Y	150	6.3	85	4	125	9.5	6	50	1[1)]	1.581	1.423	0.632
TPSC227*006#0070	C	220	6.3	85	4	125	13.9	8	70	1	1.254	1.128	0.501
TPSC227*006#0100	C	220	6.3	85	4	125	13.9	8	100	1	1.049	0.944	0.420
TPSC227*006#0125	C	220	6.3	85	4	125	13.9	8	125	1	0.938	0.844	0.375
TPSC227*006#0250	C	220	6.3	85	4	125	13.9	8	250	1	0.663	0.597	0.265
TPSD227*006#0050	D	220	6.3	85	4	125	13.9	8	50	1	1.732	1.559	0.693
TPSD227*006#0100	D	220	6.3	85	4	125	13.9	8	100	1	1.225	1.102	0.490
TPSD227*006#0125	D	220	6.3	85	4	125	13.9	8	125	1	1.095	0.986	0.438
TPSE227*006#0100	E	220	6.3	85	4	125	13.9	8	100	1[1)]	1.285	1.156	0.514
TPSF227*006#0200	F	220	6.3	85	4	125	13.2	10	200	1	0.707	0.636	0.283
TPSY227*006#0100	Y	220	6.3	85	4	125	13.9	8	100	1[1)]	1.118	1.006	0.447
TPSY227*006#0150	Y	220	6.3	85	4	125	13.9	8	150	1[1)]	0.913	0.822	0.365
TPSC337*006#0080	C	330	6.3	85	4	125	19.8	12	80	1	1.173	1.055	0.469
TPSC337*006#0100	C	330	6.3	85	4	125	19.8	12	100	1	1.049	0.944	0.420
TPSD337*006#0045	D	330	6.3	85	4	125	20.8	8	45	1	1.826	1.643	0.730
TPSD337*006#0050	D	330	6.3	85	4	125	20.8	8	50	1	1.732	1.559	0.693
TPSD337*006#0070	D	330	6.3	85	4	125	20.8	8	70	1	1.464	1.317	0.586
TPSD337*006#0100	D	330	6.3	85	4	125	20.8	8	100	1	1.225	1.102	0.490
TPSE337*006#0050	E	330	6.3	85	4	125	20.8	8	50	1[1)]	1.817	1.635	0.727
TPSE337*006#0100	E	330	6.3	85	4	125	20.8	8	100	1[1)]	1.285	1.156	0.514

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSE337*006#0125	E	330	6.3	85	4	125	20.8	8	125	1[1)]	1.149	1.034	0.460
TPSE337*006#0150	E	330	6.3	85	4	125	20.8	8	150	1[1)]	1.049	0.944	0.420
TPSV337*006#0100	V	330	6.3	85	4	125	20.8	8	100	1[1)]	1.581	1.423	0.632
TPSY337*006#0075	Y	330	6.3	85	4	125	20.8	12	75	1[1)]	1.291	1.162	0.516
TPSY337*006#0100	Y	330	6.3	85	4	125	20.8	12	100	1[1)]	1.118	1.006	0.447
TPSY337*006#0150	Y	330	6.3	85	4	125	20.8	12	150	1[1)]	0.913	0.822	0.365
TPSD477*006#0045	D	470	6.3	85	4	125	28	12	45	1	1.826	1.643	0.730
TPSD477*006#0060	D	470	6.3	85	4	125	28	12	60	1	1.581	1.423	0.632
TPSD477*006#0100	D	470	6.3	85	4	125	28	12	100	1	1.225	1.102	0.490
TPSD477*006#0200	D	470	6.3	85	4	125	28	12	200	1	0.866	0.779	0.346
TPSE477*006#0045	E	470	6.3	85	4	125	28	10	45	1[1)]	1.915	1.723	0.766
TPSE477*006#0050	E	470	6.3	85	4	125	28	10	50	1[1)]	1.817	1.635	0.727
TPSE477*006#0060	E	470	6.3	85	4	125	28	10	60	1[1)]	1.658	1.492	0.663
TPSE477*006#0100	E	470	6.3	85	4	125	28	10	100	1[1)]	1.285	1.156	0.514
TPSE477*006#0200	E	470	6.3	85	4	125	28	10	200	1[1)]	0.908	0.817	0.363
TPSV477*006#0040	V	470	6.3	85	4	125	28	10	40	1[1)]	2.500	2.250	1.000
TPSV477*006#0055	V	470	6.3	85	4	125	28	10	55	1[1)]	2.132	1.919	0.853
TPSV477*006#0100	V	470	6.3	85	4	125	28	10	100	1[1)]	1.581	1.423	0.632
TPSY477*006#0150	Y	470	6.3	85	4	125	28.2	20	150	1[1)]	0.913	0.822	0.365
TPSE687*006#0045	E	680	6.3	85	4	125	42.8	10	45	1[1)]	1.915	1.723	0.766
TPSE687*006#0060	E	680	6.3	85	4	125	42.8	10	60	1[1)]	1.658	1.492	0.663
TPSE687*006#0100	E	680	6.3	85	4	125	42.8	10	100	1[1)]	1.285	1.156	0.514
TPSV687*006#0035	V	680	6.3	85	4	125	42.8	14	35	1[1)]	2.673	2.405	1.069
TPSV687*006#0040	V	680	6.3	85	4	125	42.8	10	40	1[1)]	2.500	2.250	1.000
TPSV687*006#0050	V	680	6.3	85	4	125	42.8	10	50	1[1)]	2.236	2.012	0.894
TPSE108M006#0100	E	1000	6.3	85	4	125	60	20	100	1[1)]	1.285	1.156	0.514
TPSV108M006#0040	V	1000	6.3	85	4	125	60	16	40	1[1)]	2.500	2.250	1.000
TPSV108M006#0050	V	1000	6.3	85	4	125	60	16	50	1[1)]	2.236	2.012	0.894
10 Volt @ 85°C													
TPSR105*010#9000	R	1	10	85	7	125	0.5	4	9000	1	0.078	0.070	0.031
TPSA225*010#1800	A	2.2	10	85	7	125	0.5	6	1800	1	0.204	0.184	0.082
TPST335*010#1500	T	3.3	10	85	7	125	0.5	6	1500	1	0.231	0.208	0.092
TPSA475*010#1400	A	4.7	10	85	7	125	0.5	6	1400	1	0.231	0.208	0.093
TPSB475*010#1400	B	4.7	10	85	7	125	0.5	6	1400	1	0.246	0.222	0.099
TPSR475*010#3000	R	4.7	10	85	7	125	0.5	6	3000	1	0.135	0.122	0.054
TPSR475*010#5000	R	4.7	10	85	7	125	0.5	6	5000	1	0.105	0.094	0.042
TPSA685*010#1800	A	6.8	10	85	7	125	0.7	6	1800	1	0.204	0.184	0.082
TPSB685*010#1300	B	6.8	10	85	7	125	0.7	6	1300	1	0.256	0.230	0.102
TPST685*010#1800	T	6.8	10	85	7	125	0.7	6	1800	1	0.211	0.190	0.084
TPSA106*010#0900	A	10	10	85	7	125	1	6	900	1	0.289	0.260	0.115
TPSA106*010#1800	A	10	10	85	7	125	1	6	1800	1	0.204	0.184	0.082
TPSB106*010#1000	B	10	10	85	7	125	1	6	1000	1	0.292	0.262	0.117
TPSP106M010#2000	P	10	10	85	7	125	1	8	2000	1	0.173	0.156	0.069
TPSS106*010#0900	S	10	10	85	7	125	1	8	900	1	0.269	0.242	0.107
TPST106*010#1000	T	10	10	85	7	125	1	6	1000	1	0.283	0.255	0.113
TPST106*010#2000	T	10	10	85	7	125	1	6	2000	1	0.200	0.180	0.080
TPSA156*010#1000	A	15	10	85	7	125	1.5	6	1000	1	0.274	0.246	0.110
TPSB156*010#0450	B	15	10	85	7	125	1.5	6	450	1	0.435	0.391	0.174
TPSB156*010#0600	B	15	10	85	7	125	1.5	6	600	1	0.376	0.339	0.151
TPSC156*010#0700	C	15	10	85	7	125	1.5	6	700	1	0.396	0.357	0.159
TPST156*010#1200	T	15	10	85	7	125	1.5	8	1200	1	0.258	0.232	0.103
TPSA226*010#0900	A	22	10	85	7	125	2.2	8	900	1	0.289	0.260	0.115
TPSB226*010#0400	B	22	10	85	7	125	2.2	6	400	1	0.461	0.415	0.184
TPSB226*010#0500	B	22	10	85	7	125	2.2	6	500	1	0.412	0.371	0.165
TPSB226*010#0700	B	22	10	85	7	125	2.2	6	700	1	0.348	0.314	0.139
TPSC226*010#0300	C	22	10	85	7	125	2.2	6	300	1	0.606	0.545	0.242
TPST226*010#0800	T	22	10	85	7	125	2.2	8	800	1	0.316	0.285	0.126
TPSA336*010#0700	A	33	10	85	7	125	3.3	8	700	1	0.327	0.295	0.131
TPSB336*010#0250	B	33	10	85	7	125	3.3	6	250	1	0.583	0.525	0.233
TPSB336*010#0425	B	33	10	85	7	125	3.3	6	425	1	0.447	0.402	0.179
TPSB336*010#0500	B	33	10	85	7	125	3.3	6	500	1	0.412	0.371	0.165
TPSB336*010#0650	B	33	10	85	7	125	3.3	6	650	1	0.362	0.325	0.145
TPSC336*010#0150	C	33	10	85	7	125	3.3	6	150	1	0.856	0.771	0.343
TPSC336*010#0375	C	33	10	85	7	125	3.3	6	375	1	0.542	0.487	0.217
TPSC336*010#0500	C	33	10	85	7	125	3.3	6	500	1	0.469	0.422	0.188
TPSW336*010#0350	W	33	10	85	7	125	3.3	6	350	1	0.507	0.456	0.203
TPSB476*010#0250	B	47	10	85	7	125	4.7	8	250	1	0.583	0.525	0.233
TPSB476*010#0350	B	47	10	85	7	125	4.7	8	350	1	0.493	0.444	0.197
TPSB476*010#0500	B	47	10	85	7	125	4.7	8	500	1	0.412	0.371	0.165
TPSB476*010#0650	B	47	10	85	7	125	4.7	8	650	1	0.362	0.325	0.145
TPSC476*010#0200	C	47	10	85	7	125	4.7	6	200	1	0.742	0.667	0.297
TPSC476*010#0350	C	47	10	85	7	125	4.7	6	350	1	0.561	0.505	0.224

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSD476*010#0100	D	47	10	85	7	125	4.7	6	100	1	1.225	1.102	0.490
TPSD476*010#0300	D	47	10	85	7	125	4.7	6	300	1	0.707	0.636	0.283
TPSW476*010#0125	W	47	10	85	7	125	4.7	6	125	1	0.849	0.764	0.339
TPSW476*010#0150	W	47	10	85	7	125	4.7	6	150	1	0.775	0.697	0.310
TPSW476*010#0250	W	47	10	85	7	125	4.7	6	250	1	0.600	0.540	0.240
TPSB686*010#0600	B	68	10	85	7	125	6.8	8	600	1	0.376	0.339	0.151
TPSC686*010#0080	C	68	10	85	7	125	6.8	6	80	1	1.173	1.055	0.469
TPSC686*010#0100	C	68	10	85	7	125	6.8	6	100	1	1.049	0.944	0.420
TPSC686*010#0200	C	68	10	85	7	125	6.8	6	200	1	0.742	0.667	0.297
TPSC686*010#0300	C	68	10	85	7	125	6.8	6	300	1	0.606	0.545	0.242
TPSD686*010#0100	D	68	10	85	7	125	6.8	6	100	1	1.225	1.102	0.490
TPSD686*010#0150	D	68	10	85	7	125	6.8	6	150	1	1.000	0.900	0.400
TPSY686*010#0100	Y	68	10	85	7	125	6.8	6	100	1[1)]	1.118	1.006	0.447
TPSY686*010#0200	Y	68	10	85	7	125	6.8	6	200	1[1)]	0.791	0.712	0.316
TPSW686*010#0100	W	68	10	85	7	125	6.8	6	100	1	0.949	0.854	0.379
TPSW686*010#0150	W	68	10	85	7	125	6.8	6	150	1	0.775	0.697	0.310
TPSB107M010#0400	B	100	10	85	7	125	10	8	400	1	0.461	0.415	0.184
TPSC107*010#0075	C	100	10	85	7	125	10	8	75	1	1.211	1.090	0.484
TPSC107*010#0100	C	100	10	85	7	125	10	8	100	1	1.049	0.944	0.420
TPSC107*010#0150	C	100	10	85	7	125	10	8	150	1	0.856	0.771	0.343
TPSC107*010#0200	C	100	10	85	7	125	10	8	200	1	0.742	0.667	0.297
TPSD107*010#0050	D	100	10	85	7	125	10	6	50	1	1.732	1.559	0.693
TPSD107*010#0065	D	100	10	85	7	125	10	6	65	1	1.519	1.367	0.608
TPSD107*010#0080	D	100	10	85	7	125	10	6	80	1	1.369	1.232	0.548
TPSD107*010#0100	D	100	10	85	7	125	10	6	100	1	1.225	1.102	0.490
TPSD107*010#0125	D	100	10	85	7	125	10	6	125	1	1.095	0.986	0.438
TPSD107*010#0150	D	100	10	85	7	125	10	6	150	1	1.000	0.900	0.400
TPSE107*010#0125	E	100	10	85	7	125	10	6	125	1[1)]	1.149	1.034	0.460
TPSW107*010#0150	W	100	10	85	7	125	10	6	150	1	0.775	0.697	0.310
TPSX107*010#0085	X	100	10	85	7	125	10	8	85	1[1)]	1.085	0.976	0.434
TPSX107*010#0150	X	100	10	85	7	125	10	8	150	1[1)]	0.816	0.735	0.327
TPSX107*010#0200	X	100	10	85	7	125	10	8	200	1[1)]	0.707	0.636	0.283
TPSY107*010#0100	Y	100	10	85	7	125	10	6	100	1[1)]	1.118	1.006	0.447
TPSY107*010#0150	Y	100	10	85	7	125	10	6	150	1[1)]	0.913	0.822	0.365
TPSY107*010#0200	Y	100	10	85	7	125	10	6	200	1[1)]	0.791	0.712	0.316
TPSC157*010#0150	C	150	10	85	7	125	15	8	150	1	0.856	0.771	0.343
TPSD157*010#0050	D	150	10	85	7	125	15	8	50	1	1.732	1.559	0.693
TPSD157*010#0085	D	150	10	85	7	125	15	8	85	1	1.328	1.196	0.531
TPSD157*010#0100	D	150	10	85	7	125	15	8	100	1	1.225	1.102	0.490
TPSE157*010#0100	E	150	10	85	7	125	15	8	100	1[1)]	1.285	1.156	0.514
TPSF157*010#0200	F	150	10	85	7	125	15	10	200	1	0.707	0.636	0.283
TPSX157M010#0100	X	150	10	85	7	125	15	6	100	1[1)]	1.000	0.900	0.400
TPSY157*010#0100	Y	150	10	85	7	125	15	6	100	1[1)]	1.118	1.006	0.447
TPSY157*010#0150	Y	150	10	85	7	125	15	6	150	1[1)]	0.913	0.822	0.365
TPSY157*010#0200	Y	150	10	85	7	125	15	6	200	1[1)]	0.791	0.712	0.316
TPSD227*010#0040	D	220	10	85	7	125	22	8	40	1	1.936	1.743	0.775
TPSD227*010#0050	D	220	10	85	7	125	22	8	50	1	1.732	1.559	0.693
TPSD227*010#0100	D	220	10	85	7	125	22	8	100	1	1.225	1.102	0.490
TPSD227*010#0150	D	220	10	85	7	125	22	8	150	1	1.000	0.900	0.400
TPSE227*010#0050	E	220	10	85	7	125	22	8	50	1[1)]	1.817	1.635	0.727
TPSE227*010#0060	E	220	10	85	7	125	22	8	60	1[1)]	1.658	1.492	0.663
TPSE227*010#0070	E	220	10	85	7	125	22	8	70	1[1)]	1.535	1.382	0.614
TPSE227*010#0100	E	220	10	85	7	125	22	8	100	1[1)]	1.285	1.156	0.514
TPSE227*010#0125	E	220	10	85	7	125	22	8	125	1[1)]	1.149	1.034	0.460
TPSE227*010#0150	E	220	10	85	7	125	22	8	150	1[1)]	1.049	0.944	0.420
TPSY227*010#0100	Y	220	10	85	7	125	22	10	100	1[1)]	1.118	1.006	0.447
TPSY227*010#0150	Y	220	10	85	7	125	22	10	150	1[1)]	0.913	0.822	0.365
TPSY227*010#0200	Y	220	10	85	7	125	22	10	200	1[1)]	0.791	0.712	0.316
TPSD337*010#0050	D	330	10	85	7	125	33	8	50	1	1.732	1.559	0.693
TPSD337*010#0065	D	330	10	85	7	125	33	8	65	1	1.519	1.367	0.608
TPSD337*010#0100	D	330	10	85	7	125	33	8	100	1	1.225	1.102	0.490
TPSD337*010#0150	D	330	10	85	7	125	33	8	150	1	1.000	0.900	0.400
TPSE337*010#0040	E	330	10	85	7	125	33	8	40	1[1)]	2.031	1.828	0.812
TPSE337*010#0050	E	330	10	85	7	125	33	8	50	1[1)]	1.817	1.635	0.727
TPSE337*010#0060	E	330	10	85	7	125	33	8	60	1[1)]	1.658	1.492	0.663
TPSE337*010#0100	E	330	10	85	7	125	33	8	100	1[1)]	1.285	1.156	0.514
TPSV337*010#0040	V	330	10	85	7	125	33	10	40	1[1)]	2.500	2.250	1.000
TPSV337*010#0060	V	330	10	85	7	125	33	10	60	1[1)]	2.041	1.837	0.816
TPSV337*010#0100	V	330	10	85	7	125	33	10	100	1[1)]	1.581	1.423	0.632
TPSE477*010#0045	E	470	10	85	7	125	47	10	45	1[1)]	1.915	1.723	0.766
TPSE477*010#0050	E	470	10	85	7	125	47	10	50	1[1)]	1.817	1.635	0.727

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSE477*010#0060	E	470	10	85	7	125	47	10	60	1[1)]	1.658	1.492	0.663
TPSE477*010#0100	E	470	10	85	7	125	47	10	100	1[1)]	1.285	1.156	0.514
TPSE477*010#0200	E	470	10	85	7	125	47	10	200	1[1)]	0.908	0.817	0.363
TPSV477*010#0040	V	470	10	85	7	125	47	10	40	1[1)]	2.500	2.250	1.000
TPSV477*010#0060	V	470	10	85	7	125	47	10	60	1[1)]	2.041	1.837	0.816
TPSV477*010#0100	V	470	10	85	7	125	47	10	100	1[1)]	1.581	1.423	0.632
16 Volt @ 85°C													
TPSA105*016#6200	A	1	16	85	10	125	0.5	4	6200	1	0.110	0.099	0.044
TPSA225*016#1800	A	2.2	16	85	10	125	0.5	6	1800	1	0.204	0.184	0.082
TPSA225*016#3500	A	2.2	16	85	10	125	0.5	6	3500	1	0.146	0.132	0.059
TPST225*016#2000	T	2.2	16	85	10	125	0.5	6	2000	1	0.200	0.180	0.080
TPSA335*016#3500	A	3.3	16	85	10	125	0.5	6	3500	1	0.146	0.132	0.059
TPSB335*016#2500	B	3.3	16	85	10	125	0.5	6	2500	1	0.184	0.166	0.074
TPSA475*016#2000	A	4.7	16	85	10	125	0.8	6	2000	1	0.194	0.174	0.077
TPSB475*016#0800	B	4.7	16	85	10	125	0.8	6	800	1	0.326	0.293	0.130
TPSB475*016#1500	B	4.7	16	85	10	125	0.8	6	1500	1	0.238	0.214	0.095
TPSA685*016#1500	A	6.8	16	85	10	125	1.1	6	1500	1	0.224	0.201	0.089
TPSB685*016#0600	B	6.8	16	85	10	125	1.1	6	600	1	0.376	0.339	0.151
TPSB685*016#1200	B	6.8	16	85	10	125	1.1	6	1200	1	0.266	0.240	0.106
TPSA106*016#1000	A	10	16	85	10	125	1.6	6	1000	1	0.274	0.246	0.110
TPSB106*016#0500	B	10	16	85	10	125	1.6	6	500	1	0.412	0.371	0.165
TPSB106*016#0800	B	10	16	85	10	125	1.6	6	800	1	0.326	0.293	0.130
TPSC106*016#0500	C	10	16	85	10	125	1.6	6	500	1	0.469	0.422	0.188
TPST106*016#0800	T	10	16	85	10	125	1.6	8	800	1	0.316	0.285	0.126
TPST106*016#1000	T	10	16	85	10	125	1.6	8	1000	1	0.283	0.255	0.113
TPSW106*016#0500	W	10	16	85	10	125	1.6	6	500	1	0.424	0.382	0.170
TPSW106*016#0600	W	10	16	85	10	125	1.6	6	600	1	0.387	0.349	0.155
TPSB156*016#0500	B	15	16	85	10	125	2.4	6	500	1	0.412	0.371	0.165
TPSB156*016#0800	B	15	16	85	10	125	2.4	6	800	1	0.326	0.293	0.130
TPSC156*016#0300	C	15	16	85	10	125	2.4	6	300	1	0.606	0.545	0.242
TPSC156*016#0700	C	15	16	85	10	125	2.4	6	700	1	0.396	0.357	0.159
TPSB226*016#0400	B	22	16	85	10	125	3.5	6	400	1	0.461	0.415	0.184
TPSB226*016#0600	B	22	16	85	10	125	3.5	6	600	1	0.376	0.339	0.151
TPSC226*016#0150	C	22	16	85	10	125	3.5	6	150	1	0.856	0.771	0.343
TPSC226*016#0250	C	22	16	85	10	125	3.5	6	250	1	0.663	0.597	0.265
TPSC226*016#0300	C	22	16	85	10	125	3.5	6	300	1	0.606	0.545	0.242
TPSC226*016#0375	C	22	16	85	10	125	3.5	6	375	1	0.542	0.487	0.217
TPSD226*016#0700	D	22	16	85	10	125	3.5	6	700	1	0.463	0.417	0.185
TPSW226*016#0500	W	22	16	85	10	125	3.5	6	500	1	0.424	0.382	0.170
TPSB336*016#0350	B	33	16	85	10	125	5.3	8	350	1	0.493	0.444	0.197
TPSB336*016#0500	B	33	16	85	10	125	5.3	8	500	1	0.412	0.371	0.165
TPSC336*016#0100	C	33	16	85	10	125	5.3	6	100	1	1.049	0.944	0.420
TPSC336*016#0150	C	33	16	85	10	125	5.3	6	150	1	0.856	0.771	0.343
TPSC336*016#0225	C	33	16	85	10	125	5.3	6	225	1	0.699	0.629	0.280
TPSC336*016#0300	C	33	16	85	10	125	5.3	6	300	1	0.606	0.545	0.242
TPSD336*016#0200	D	33	16	85	10	125	5.3	6	200	1	0.866	0.779	0.346
TPSW336*016#0140	W	33	16	85	10	125	5.3	6	140	1	0.802	0.722	0.321
TPSW336*016#0175	W	33	16	85	10	125	5.3	6	175	1	0.717	0.645	0.287
TPSW336*016#0250	W	33	16	85	10	125	5.3	6	250	1	0.600	0.540	0.240
TPSW336*016#0400	W	33	16	85	10	125	5.3	6	400	1	0.474	0.427	0.190
TPSW336*016#0500	W	33	16	85	10	125	5.3	6	500	1	0.424	0.382	0.170
TPSY336*016#0300	Y	33	16	85	10	125	5.3	6	300	1[1)]	0.645	0.581	0.258
TPSY336*016#0400	Y	33	16	85	10	125	5.3	6	400	1[1)]	0.559	0.503	0.224
TPSC476*016#0110	C	47	16	85	10	125	7.5	6	110	1	1.000	0.900	0.400
TPSC476*016#0350	C	47	16	85	10	125	7.5	6	350	1	0.561	0.505	0.224
TPSD476*016#0080	D	47	16	85	10	125	7.5	6	80	1	1.369	1.232	0.548
TPSD476*016#0100	D	47	16	85	10	125	7.5	6	100	1	1.225	1.102	0.490
TPSD476*016#0150	D	47	16	85	10	125	7.5	6	150	1	1.000	0.900	0.400
TPSD476*016#0200	D	47	16	85	10	125	7.5	6	200	1	0.866	0.779	0.346
TPSW476*016#0200	W	47	16	85	10	125	7.5	6	200	1	0.671	0.604	0.268
TPSX476*016#0180	X	47	16	85	10	125	7.5	6	180	1[1)]	0.745	0.671	0.298
TPSY476*016#0250	Y	47	16	85	10	125	7.5	6	250	1[1)]	0.707	0.636	0.283
TPSC686*016#0125	C	68	16	85	10	125	10.9	6	125	1	0.938	0.844	0.375
TPSC686*016#0200	C	68	16	85	10	125	10.9	6	200	1	0.742	0.667	0.297
TPSD686*016#0070	D	68	16	85	10	125	10.9	6	70	1	1.464	1.317	0.586
TPSD686*016#0100	D	68	16	85	10	125	10.9	6	100	1	1.225	1.102	0.490
TPSD686*016#0150	D	68	16	85	10	125	10.9	6	150	1	1.000	0.900	0.400
TPSF686*016#0200	F	68	16	85	10	125	10.9	10	200	1	0.707	0.636	0.283
TPSX686*016#0150	X	68	16	85	10	125	10.9	8	150	1[1)]	0.816	0.735	0.327
TPSY686*016#0150	Y	68	16	85	10	125	10.9	6	150	1[1)]	0.913	0.822	0.365
TPSY686*016#0200	Y	68	16	85	10	125	10.9	6	200	1[1)]	0.791	0.712	0.316
TPSY686*016#0250	Y	68	16	85	10	125	10.9	6	250	1[1)]	0.707	0.636	0.283

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSC107*016#0200	C	100	16	85	10	125	16	8	200	1	0.742	0.667	0.297
TPSD107*016#0060	D	100	16	85	10	125	16	6	60	1	1.581	1.423	0.632
TPSD107*016#0100	D	100	16	85	10	125	16	6	100	1	1.225	1.102	0.490
TPSD107*016#0125	D	100	16	85	10	125	16	6	125	1	1.095	0.986	0.438
TPSD107*016#0150	D	100	16	85	10	125	16	6	150	1	1.000	0.900	0.400
TPSE107*016#0055	E	100	16	85	10	125	16	6	55	1[1)]	1.732	1.559	0.693
TPSE107*016#0100	E	100	16	85	10	125	16	6	100	1[1)]	1.285	1.156	0.514
TPSE107*016#0125	E	100	16	85	10	125	16	6	125	1[1)]	1.149	1.034	0.460
TPSE107*016#0150	E	100	16	85	10	125	16	6	150	1[1)]	1.049	0.944	0.420
TPSF107M016#0150	F	100	16	85	10	125	16	10	150	1	0.816	0.735	0.327
TPSF107M016#0200	F	100	16	85	10	125	16	10	200	1	0.707	0.636	0.283
TPSY107*016#0100	Y	100	16	85	10	125	16	8	100	1[1)]	1.118	1.006	0.447
TPSY107*016#0150	Y	100	16	85	10	125	16	8	150	1[1)]	0.913	0.822	0.365
TPSY107*016#0200	Y	100	16	85	10	125	16	8	200	1[1)]	0.791	0.712	0.316
TPSD157*016#0060	D	150	16	85	10	125	24	6	60	1	1.581	1.423	0.632
TPSD157*016#0085	D	150	16	85	10	125	24	6	85	1	1.328	1.196	0.531
TPSD157*016#0100	D	150	16	85	10	125	24	6	100	1	1.225	1.102	0.490
TPSD157*016#0125	D	150	16	85	10	125	24	6	125	1	1.095	0.986	0.438
TPSD157*016#0150	D	150	16	85	10	125	23	8	150	1	1.000	0.900	0.400
TPSE157*016#0100	E	150	16	85	10	125	24	6	100	1[1)]	1.285	1.156	0.514
TPSV157*016#0045	V	150	16	85	10	125	24	8	45	1[1)]	2.357	2.121	0.943
TPSV157*016#0075	V	150	16	85	10	125	24	8	75	1[1)]	1.826	1.643	0.730
TPSY157M016#0200	Y	150	16	85	10	125	24	15	200	1[1)]	0.791	0.712	0.316
TPSE227*016#0100	E	220	16	85	10	125	35.2	10	100	1[1)]	1.285	1.156	0.514
TPSE227*016#0150	E	220	16	85	10	125	35.2	10	150	1[1)]	1.049	0.944	0.420
TPSV227*016#0050	V	220	16	85	10	125	35.2	8	50	1[1)]	2.236	2.012	0.894
TPSV227*016#0075	V	220	16	85	10	125	35.2	8	75	1[1)]	1.826	1.643	0.730
TPSV227*016#0100	V	220	16	85	10	125	35.2	8	100	1[1)]	1.581	1.423	0.632
TPSV227*016#0150	V	220	16	85	10	125	35.2	8	150	1[1)]	1.291	1.162	0.516
TPSE337M016#0200	E	330	16	85	10	125	52.8	30	200	1[1)]	0.908	0.817	0.363
20 Volt @ 85°C													
TPSA105*020#3000	A	1	20	85	13	125	0.5	4	3000	1	0.158	0.142	0.063
TPSR105*020#6000	R	1	20	85	13	125	0.5	4	6000	1	0.096	0.086	0.038
TPSS105*020#6000	S	1	20	85	13	125	0.5	4	6000	1	0.104	0.094	0.042
TPST105*020#2000	T	1	20	85	13	125	0.5	4	2000	1	0.200	0.180	0.080
TPSA155*020#3000	A	1.5	20	85	13	125	0.5	6	3000	1	0.158	0.142	0.063
TPSA225*020#3000	A	2.2	20	85	13	125	0.5	6	3000	1	0.158	0.142	0.063
TPSB225*020#1700	B	2.2	20	85	13	125	0.5	6	1700	1	0.224	0.201	0.089
TPSA335*020#2500	A	3.3	20	85	13	125	0.7	6	2500	1	0.173	0.156	0.069
TPSB335*020#1300	B	3.3	20	85	13	125	0.7	6	1300	1	0.256	0.230	0.102
TPSA475*020#1800	A	4.7	20	85	13	125	0.9	6	1800	1	0.204	0.184	0.082
TPSB475*020#0750	B	4.7	20	85	13	125	0.9	6	750	1	0.337	0.303	0.135
TPSB475*020#1000	B	4.7	20	85	13	125	0.9	6	1000	1	0.292	0.262	0.117
TPSA685*020#1000	A	6.8	20	85	13	125	1.4	6	1000	1	0.274	0.246	0.110
TPSB685*020#0600	B	6.8	20	85	13	125	1.4	6	600	1	0.376	0.339	0.151
TPSB685*020#1000	B	6.8	20	85	13	125	1.4	6	1000	1	0.292	0.262	0.117
TPSC685*020#0700	C	6.8	20	85	13	125	1.4	6	700	1	0.396	0.357	0.159
TPSB106*020#0500	B	10	20	85	13	125	2	6	500	1	0.412	0.371	0.165
TPSB106*020#1000	B	10	20	85	13	125	2	6	1000	1	0.292	0.262	0.117
TPSC106*020#0500	C	10	20	85	13	125	2	6	500	1	0.469	0.422	0.188
TPSC106*020#0700	C	10	20	85	13	125	2	6	700	1	0.396	0.357	0.159
TPSW106*020#0250	W	10	20	85	13	125	2	6	250	1	0.600	0.540	0.240
TPSW106*020#0500	W	10	20	85	13	125	2	6	500	1	0.424	0.382	0.170
TPSB156*020#0500	B	15	20	85	13	125	3	6	500	1	0.412	0.371	0.165
TPSC156*020#0400	C	15	20	85	13	125	3	6	400	1	0.524	0.472	0.210
TPSC156*020#0450	C	15	20	85	13	125	3	6	450	1	0.494	0.445	0.198
TPSB226*020#0400	B	22	20	85	13	125	4.4	6	400	1	0.461	0.415	0.184
TPSB226*020#0600	B	22	20	85	13	125	4.4	6	600	1	0.376	0.339	0.151
TPSC226*020#0100	C	22	20	85	13	125	4.4	6	100	1	1.049	0.944	0.420
TPSC226*020#0150	C	22	20	85	13	125	4.4	6	150	1	0.856	0.771	0.343
TPSC226*020#0400	C	22	20	85	13	125	4.4	6	400	1	0.524	0.472	0.210
TPSD226*020#0200	D	22	20	85	13	125	4.4	6	200	1	0.866	0.779	0.346
TPSD226*020#0300	D	22	20	85	13	125	4.4	6	300	1	0.707	0.636	0.283
TPSC336*020#0300	C	33	20	85	13	125	6.6	6	300	1	0.606	0.545	0.242
TPSD336*020#0100	D	33	20	85	13	125	6.6	6	100	1	1.225	1.102	0.490
TPSD336*020#0200	D	33	20	85	13	125	6.6	6	200	1	0.866	0.779	0.346
TPSD476*020#0075	D	47	20	85	13	125	9.4	6	75	1	1.414	1.273	0.566
TPSD476*020#0100	D	47	20	85	13	125	9.4	6	100	1	1.225	1.102	0.490
TPSD476*020#0200	D	47	20	85	13	125	9.4	6	200	1	0.866	0.779	0.346
TPSE476*020#0070	E	47	20	85	13	125	9.4	6	70	1[1)]	1.535	1.382	0.614
TPSE476*020#0125	E	47	20	85	13	125	9.4	6	125	1[1)]	1.149	1.034	0.460

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TPS Series

Low ESR

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSE476*020#0150	E	47	20	85	13	125	9.4	6	150	1[1)]	1.049	0.944	0.420
TPSE476*020#0200	E	47	20	85	13	125	9.4	6	200	1[1)]	0.908	0.817	0.363
TPSE476*020#0250	E	47	20	85	13	125	9.4	6	250	1[1)]	0.812	0.731	0.325
TPSX476*020#0200	X	47	20	85	13	125	9.4	6	200	1[1)]	0.707	0.636	0.283
TPSD686*020#0070	D	68	20	85	13	125	13.6	6	70	1	1.464	1.317	0.586
TPSD686*020#0150	D	68	20	85	13	125	13.6	6	150	1	1.000	0.900	0.400
TPSD686*020#0200	D	68	20	85	13	125	13.6	6	200	1	0.866	0.779	0.346
TPSD686*020#0300	D	68	20	85	13	125	13.6	6	300	1	0.707	0.636	0.283
TPSE686*020#0125	E	68	20	85	13	125	13.6	6	125	1[1)]	1.149	1.034	0.460
TPSE686*020#0150	E	68	20	85	13	125	13.6	6	150	1[1)]	1.049	0.944	0.420
TPSE686*020#0200	E	68	20	85	13	125	13.6	6	200	1[1)]	0.908	0.817	0.363
TPSY686*020#0200	Y	68	20	85	13	125	13.6	6	200	1[1)]	0.791	0.712	0.316
TPSD107*020#0085	D	100	20	85	13	125	20	6	85	1	1.328	1.196	0.531
TPSD107*020#0100	D	100	20	85	13	125	20	6	100	1	1.225	1.102	0.490
TPSD107*020#0150	D	100	20	85	13	125	20	6	150	1	1.000	0.900	0.400
TPSE107*020#0100	E	100	20	85	13	125	20	6	100	1[1)]	1.285	1.156	0.514
TPSE107*020#0150	E	100	20	85	13	125	20	6	150	1[1)]	1.049	0.944	0.420
TPSE107*020#0200	E	100	20	85	13	125	20	6	200	1[1)]	0.908	0.817	0.363
TPSV107*020#0060	V	100	20	85	13	125	20	8	60	1[1)]	2.041	1.837	0.816
TPSV107*020#0085	V	100	20	85	13	125	20	8	85	1[1)]	1.715	1.543	0.686
TPSV107*020#0100	V	100	20	85	13	125	20	8	100	1[1)]	1.581	1.423	0.632
TPSV107*020#0200	V	100	20	85	13	125	20	8	200	1[1)]	1.118	1.006	0.447
TPSV157*020#0080	V	150	20	85	13	125	30	8	80	1[1)]	1.768	1.591	0.707
25 Volt @ 85°C													
TPSA474*025#7000	A	0.47	25	85	17	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA684*025#6000	A	0.68	25	85	17	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA105*025#4000	A	1	25	85	17	125	0.5	4	4000	1	0.137	0.123	0.055
TPSR105*025#2500	R	1	25	85	17	125	0.5	4	2500	1	0.148	0.133	0.059
TPSR105*025#4000	R	1	25	85	17	125	0.5	4	4000	1	0.117	0.106	0.047
TPSA155*025#3000	A	1.5	25	85	17	125	0.5	6	3000	1	0.158	0.142	0.063
TPSB155*025#1800	B	1.5	25	85	17	125	0.5	6	1800	1	0.217	0.196	0.087
TPSA225*025#2500	A	2.2	25	85	17	125	0.6	6	2500	1	0.173	0.156	0.069
TPSB225*025#0900	B	2.2	25	85	17	125	0.6	6	900	1	0.307	0.277	0.123
TPSB225*025#1200	B	2.2	25	85	17	125	0.6	6	1200	1	0.266	0.240	0.106
TPSB225*025#2500	B	2.2	25	85	17	125	0.6	6	2500	1	0.184	0.166	0.074
TPSA335*025#1000	A	3.3	25	85	17	125	0.8	6	1000	1	0.274	0.246	0.110
TPSA335*025#1500	A	3.3	25	85	17	125	0.8	6	1500	1	0.224	0.201	0.089
TPSB335*025#0750	B	3.3	25	85	17	125	0.8	6	750	1	0.337	0.303	0.135
TPSB335*025#1500	B	3.3	25	85	17	125	0.8	6	1500	1	0.238	0.214	0.095
TPSB335*025#2000	B	3.3	25	85	17	125	0.8	6	2000	1	0.206	0.186	0.082
TPSB475*025#0700	B	4.7	25	85	17	125	1.2	6	700	1	0.348	0.314	0.139
TPSB475*025#0900	B	4.7	25	85	17	125	1.2	6	900	1	0.307	0.277	0.123
TPSB475*025#1500	B	4.7	25	85	17	125	1.2	6	1500	1	0.238	0.214	0.095
TPSC475*025#0700	C	4.7	25	85	17	125	1.2	6	700	1	0.396	0.357	0.159
TPSB685*025#0700	B	6.8	25	85	17	125	1.7	6	700	1	0.348	0.314	0.139
TPSC685*025#0500	C	6.8	25	85	17	125	1.7	6	500	1	0.469	0.422	0.188
TPSC685*025#0600	C	6.8	25	85	17	125	1.7	6	600	1	0.428	0.385	0.171
TPSC685*025#0700	C	6.8	25	85	17	125	1.7	6	700	1	0.396	0.357	0.159
TPSB106*025#1800	B	10	25	85	17	125	2.5	6	1800	1	0.217	0.196	0.087
TPSC106*025#0300	C	10	25	85	17	125	2.5	6	300	1	0.606	0.545	0.242
TPSC106*025#0500	C	10	25	85	17	125	2.5	6	500	1	0.469	0.422	0.188
TPSD106*025#0500	D	10	25	85	17	125	2.5	6	500	1	0.548	0.493	0.219
TPSC156*025#0220	C	15	25	85	17	125	3.8	6	220	1	0.707	0.636	0.283
TPSC156*025#0300	C	15	25	85	17	125	3.8	6	300	1	0.606	0.545	0.242
TPSD156*025#0100	D	15	25	85	17	125	3.8	6	100	1	1.225	1.102	0.490
TPSD156*025#0300	D	15	25	85	17	125	3.8	6	300	1	0.707	0.636	0.283
TPSC226*025#0275	C	22	25	85	17	125	5.5	6	275	1	0.632	0.569	0.253
TPSC226*025#0400	C	22	25	85	17	125	5.5	6	400	1	0.524	0.472	0.210
TPSD226*025#0100	D	22	25	85	17	125	5.5	6	100	1	1.225	1.102	0.490
TPSD226*025#0200	D	22	25	85	17	125	5.5	6	200	1	0.866	0.779	0.346
TPSD226*025#0300	D	22	25	85	17	125	5.5	6	300	1	0.707	0.636	0.283
TPSD336*025#0100	D	33	25	85	17	125	8.3	6	100	1	1.225	1.102	0.490
TPSD336*025#0200	D	33	25	85	17	125	8.3	6	200	1	0.866	0.779	0.346
TPSD336*025#0300	D	33	25	85	17	125	8.3	6	300	1	0.707	0.636	0.283
TPSE336*025#0100	E	33	25	85	17	125	8.3	6	100	1[1)]	1.285	1.156	0.514
TPSE336*025#0175	E	33	25	85	17	125	8.3	6	175	1[1)]	0.971	0.874	0.388
TPSE336*025#0200	E	33	25	85	17	125	8.3	6	200	1[1)]	0.908	0.817	0.363
TPSE336*025#0300	E	33	25	85	17	125	8.3	6	300	1[1)]	0.742	0.667	0.297
TPSY336*025#0200	Y	33	25	85	17	125	8.3	6	200	1[1)]	0.791	0.712	0.316
TPSD476*025#0125	D	47	25	85	17	125	11.8	6	125	1	1.095	0.986	0.438
TPSD476*025#0150	D	47	25	85	17	125	11.8	6	150	1	1.000	0.900	0.400

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSD476*025#0250	D	47	25	85	17	125	11.8	6	250	1	0.775	0.697	0.310
TPSE476*025#0080	E	47	25	85	17	125	11.8	6	80	1[1)]	1.436	1.293	0.574
TPSE476*025#0100	E	47	25	85	17	125	11.8	6	100	1[1)]	1.285	1.156	0.514
TPSE476*025#0125	E	47	25	85	17	125	11.8	6	125	1[1)]	1.149	1.034	0.460
TPSY476*025#0250	Y	47	25	85	17	125	11.8	6	250	1[1)]	0.707	0.636	0.283
TPSE686*025#0125	E	68	25	85	17	125	17	6	125	1[1)]	1.149	1.034	0.460
TPSE686*025#0200	E	68	25	85	17	125	17	6	200	1[1)]	0.908	0.817	0.363
TPSV686*025#0080	V	68	25	85	17	125	17	6	80	1[1)]	1.768	1.591	0.707
TPSV686*025#0095	V	68	25	85	17	125	17	6	95	1[1)]	1.622	1.460	0.649
TPSV686*025#0150	V	68	25	85	17	125	17	6	150	1[1)]	1.291	1.162	0.516
TPSV686*025#0200	V	68	25	85	17	125	17	6	200	1[1)]	1.118	1.006	0.447
TPSE107M025#0150	E	100	25	85	17	125	25	10	150	1[1)]	1.049	0.944	0.420
TPSV107*025#0100	V	100	25	85	17	125	25	8	100	1[1)]	1.581	1.423	0.632
TPSV157M025#0150	V	150	25	85	17	125	37.5	10	150	1[1)]	1.291	1.162	0.516
35 Volt @ 85°C													
TPSA224*035#6000	A	0.22	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA334*035#6000	A	0.33	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA474*035#6000	A	0.47	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSB474*035#4000	B	0.47	35	85	23	125	0.5	4	4000	1	0.146	0.131	0.058
TPSA684*035#6000	A	0.68	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA105*035#3000	A	1	35	85	23	125	0.5	4	3000	1	0.158	0.142	0.063
TPSB105*035#2000	B	1	35	85	23	125	0.5	4	2000	1	0.206	0.186	0.082
TPSA155*035#3000	A	1.5	35	85	23	125	0.5	6	3000	1	0.158	0.142	0.063
TPSB155*035#2500	B	1.5	35	85	23	125	0.5	6	2500	1	0.184	0.166	0.074
TPSA225*035#1500	A	2.2	35	85	23	125	0.8	6	1500	1	0.224	0.201	0.089
TPSB225*035#0750	B	2.2	35	85	23	125	0.8	6	750	1	0.337	0.303	0.135
TPSB225*035#1500	B	2.2	35	85	23	125	0.8	6	1500	1	0.238	0.214	0.095
TPSB225*035#2000	B	2.2	35	85	23	125	0.8	6	2000	1	0.206	0.186	0.082
TPSC225*035#1000	C	2.2	35	85	23	125	0.8	6	1000	1	0.332	0.298	0.133
TPSB335*035#1000	B	3.3	35	85	23	125	1.2	6	1000	1	0.292	0.262	0.117
TPSC335*035#0700	C	3.3	35	85	23	125	1.2	6	700	1	0.396	0.357	0.159
TPSB475*035#0700	B	4.7	35	85	23	125	1.6	6	700	1	0.348	0.314	0.139
TPSB475*035#1500	B	4.7	35	85	23	125	1.6	6	1500	1	0.238	0.214	0.095
TPSC475*035#0600	C	4.7	35	85	23	125	1.6	6	600	1	0.428	0.385	0.171
TPSD475*035#0700	D	4.7	35	85	23	125	1.6	6	700	1	0.463	0.417	0.185
TPSC685*035#0350	C	6.8	35	85	23	125	2.4	6	350	1	0.561	0.505	0.224
TPSD685*035#0150	D	6.8	35	85	23	125	2.4	6	150	1	1.000	0.900	0.400
TPSD685*035#0400	D	6.8	35	85	23	125	2.4	6	400	1	0.612	0.551	0.245
TPSD685*035#0500	D	6.8	35	85	23	125	2.4	6	500	1	0.548	0.493	0.219
TPSC106*035#0600	C	10	35	85	23	125	3.5	6	600	1	0.428	0.385	0.171
TPSD106*035#0125	D	10	35	85	23	125	3.5	6	125	1	1.095	0.986	0.438
TPSD106*035#0300	D	10	35	85	23	125	3.5	6	300	1	0.707	0.636	0.283
TPSE106*035#0200	E	10	35	85	23	125	3.5	6	200	1[1)]	0.908	0.817	0.363
TPSY106*035#0250	Y	10	35	85	23	125	3.5	6	250	1[1)]	0.707	0.636	0.283
TPSC156*035#0350	C	15	35	85	23	125	5.3	6	350	1	0.561	0.505	0.224
TPSC156*035#0450	C	15	35	85	23	125	5.3	6	450	1	0.494	0.445	0.198
TPSD156*035#0100	D	15	35	85	23	125	5.3	6	100	1	1.225	1.102	0.490
TPSD156*035#0300	D	15	35	85	23	125	5.3	6	300	1	0.707	0.636	0.283
TPSY156*035#0250	Y	15	35	85	23	125	5.3	6	250	1[1)]	0.707	0.636	0.283
TPSD226*035#0125	D	22	35	85	23	125	7.7	6	125	1	1.095	0.986	0.438
TPSD226*035#0200	D	22	35	85	23	125	7.7	6	200	1	0.866	0.779	0.346
TPSD226*035#0300	D	22	35	85	23	125	7.7	6	300	1	0.707	0.636	0.283
TPSD226*035#0400	D	22	35	85	23	125	7.7	6	400	1	0.612	0.551	0.245
TPSE226*035#0125	E	22	35	85	23	125	7.7	6	125	1[1)]	1.149	1.034	0.460
TPSE226*035#0200	E	22	35	85	23	125	7.7	6	200	1[1)]	0.908	0.817	0.363
TPSE226*035#0300	E	22	35	85	23	125	7.7	6	300	1[1)]	0.742	0.667	0.297
TPSY226*035#0200	Y	22	35	85	23	125	7.7	6	200	1[1)]	0.791	0.712	0.316
TPSD336*035#0200	D	33	35	85	23	125	11.6	6	200	1	0.866	0.779	0.346
TPSD336*035#0300	D	33	35	85	23	125	11.6	6	300	1	0.707	0.636	0.283
TPSE336*035#0100	E	33	35	85	23	125	11.6	6	100	1[1)]	1.285	1.156	0.514
TPSE336*035#0250	E	33	35	85	23	125	11.6	6	250	1[1)]	0.812	0.731	0.325
TPSE336*035#0300	E	33	35	85	23	125	11.6	6	300	1[1)]	0.742	0.667	0.297
TPSV336*035#0200	V	33	35	85	23	125	11.6	6	200	1[1)]	1.118	1.006	0.447
TPSE476*035#0200	E	47	35	85	23	125	16.5	6	200	1[1)]	0.908	0.817	0.363
TPSE476*035#0250	E	47	35	85	23	125	16.5	6	250	1[1)]	0.812	0.731	0.325
TPSV476*035#0150	V	47	35	85	23	125	16.5	6	150	1[1)]	1.291	1.162	0.516
TPSV476*035#0200	V	47	35	85	23	125	16.5	6	200	1[1)]	1.118	1.006	0.447
TPSV686*035#0150	V	68	35	85	23	125	23.8	6	150	1[1)]	1.291	1.162	0.516
TPSV686*035#0200	V	68	35	85	23	125	23.8	6	200	1[1)]	1.118	1.006	0.447
50 Volt @ 85°C													
TPSA154*050#9000	A	0.15	50	85	33	125	0.5	4	9000	1	0.091	0.082	0.037

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RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSA224*050#7000	A	0.22	50	85	33	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA334*050#7000	A	0.33	50	85	33	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA474*050#6500	A	0.47	50	85	33	125	0.5	4	6500	1	0.107	0.097	0.043
TPSB474*050#6000	B	0.47	50	85	33	125	0.5	4	6000	1	0.119	0.107	0.048
TPSC474*050#2300	C	0.47	50	85	33	125	0.5	4	2300	1	0.219	0.197	0.087
TPSB684*050#4000	B	0.68	50	85	33	125	0.5	4	4000	1	0.146	0.131	0.058
TPSB105*050#3000	B	1	50	85	33	125	0.5	6	3000	1	0.168	0.151	0.067
TPSC105*050#2500	C	1	50	85	33	125	0.5	4	2500	1	0.210	0.189	0.084
TPSC155*050#1500	C	1.5	50	85	33	125	0.8	6	1500	1	0.271	0.244	0.108
TPSC155*050#2000	C	1.5	50	85	33	125	0.8	6	2000	1	0.235	0.211	0.094
TPSC225*050#1500	C	2.2	50	85	33	125	1.1	8	1500	1	0.271	0.244	0.108
TPSD225*050#1200	D	2.2	50	85	33	125	1.1	6	1200	1	0.354	0.318	0.141
TPSC335*050#1000	C	3.3	50	85	33	125	1.6	6	1000	1	0.332	0.298	0.133
TPSD335*050#0800	D	3.3	50	85	33	125	1.7	6	800	1	0.433	0.390	0.173
TPSC475*050#0800	C	4.7	50	85	33	125	2.4	6	800	1	0.371	0.334	0.148
TPSD475*050#0300	D	4.7	50	85	33	125	2.4	6	300	1	0.707	0.636	0.283
TPSD475*050#0500	D	4.7	50	85	33	125	2.4	6	500	1	0.548	0.493	0.219
TPSD475*050#0700	D	4.7	50	85	33	125	2.4	6	700	1	0.463	0.417	0.185
TPSD685*050#0200	D	6.8	50	85	33	125	3.4	6	200	1	0.866	0.779	0.346
TPSD685*050#0300	D	6.8	50	85	33	125	3.4	6	300	1	0.707	0.636	0.283
TPSD685*050#0500	D	6.8	50	85	33	125	3.4	6	500	1	0.548	0.493	0.219
TPSD685*050#0600	D	6.8	50	85	33	125	3.4	6	600	1	0.500	0.450	0.200
TPSD106*050#0500	D	10	50	85	33	125	5	6	500	1	0.548	0.493	0.219
TPSE106*050#0250	E	10	50	85	33	125	5	6	250	1[1)]	0.812	0.731	0.325
TPSE106*050#0300	E	10	50	85	33	125	5	6	300	1[1)]	0.742	0.667	0.297
TPSE106*050#0400	E	10	50	85	33	125	5	6	400	1[1)]	0.642	0.578	0.257
TPSE106*050#0500	E	10	50	85	33	125	5	6	500	1[1)]	0.574	0.517	0.230
TPSE156*050#0250	E	15	50	85	33	125	7.5	6	250	1[1)]	0.812	0.731	0.325
TPSV156*050#0250	V	15	50	85	33	125	7.5	6	250	1[1)]	1.000	0.900	0.400

1[1)] –Dry pack option (see How to order) recommended for reduction of stress during soldering. Dry pack parts should be treated as MSL 3.

For AEC-Q200 availability, please contact AVX.

Moisture Sensitivity Level (MSL) is defined according to J-STD-020

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL ismeasured at rated voltage after 5 minutes.

The EIA & CECC standards for low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalogue limit post mounting.

For typical weight and composition see page 213.

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

QUALIFICATION TABLE

TEST	TPS series (Temperature range -55°C to +125°C)								
	Condition			Characteristics					
Endurance	Determine after application of rated voltage for 2000 +48/-0 hours at 85±2°C and then leaving 1-2 hours at room temperature. Also determine of 125°C temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.			Visual examination	no visible damage				
				DCL	1.5 x initial limit				
				ΔC/C	within ±10% of initial value				
				DF	initial limit				
				ESR	1.25 x initial limit				
Humidity	Determine after storage without applied voltage at 65±2°C and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.			Visual examination	no visible damage				
				DCL	1.5 x initial limit				
				ΔC/C	within ±10% of initial value				
				DF	1.2 x initial limit				
				ESR	1.25 x initial limit				
Temperature Stability	Step	Temperature°C	Duration(min)		+20°C	-55°C	+20°C	+85°C	+125°C	+20°C
	1	+20±2	15	DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*
	2	-55+0/-3	15	ΔC/C	n/a	+0/-10%	±5%	+10/-0%	+12/-0%	±5%
	3	+20±2	15	DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*
	4	+85+3/-0	15	ESR	1.25 x IL*	2.5 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*
	5	+125+3/-0	15							
	6	+20±2	15							
Surge Voltage	Test temperature: 125°C+3/0°C Test voltage: Category voltage at 125°C Surge voltage: 1.3 x category voltage at 125°C Series protection resistance 1000±100Ω Discharge resistance: 1000Ω Number of cycles: 1000x Cycle duration: 6 min; 30 sec charge, 5 min 30 sec discharge			Visual examination	no visible damage				
				DCL	initial limit				
				ΔC/C	within ±5% of initial value				
				DF	initial limit				
				ESR	1.25 x initial limit				

*Initial Limit

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TPS Automotive Range

Low ESR - Automotive Product Range

TPS AUTOMOTIVE RANGE
CAPACITANCE AND RATED VOLTAGE RANGE
(LETTER DENOTES CASE SIZE)

Capacitance		Rated Voltage DC (V_R) to 85°C						
µF	Code	6.3V (J)	10V (A)	16V (C)	20V (D)	25V (E)	35V (V)	50V (T)
0.15	154							
0.22	224							A(7000)
0.33	334						A(6000)	A(7000)
0.47	474					A(7000)	A(6000)	A(6500), B(6000)
0.68	684					A(6000)	A(6000)	B(4000)
1.0	105			A(6200)	A(3000)	A(4000)	A(3000), B(2000)	B(3000), C(2500)
1.5	155				A(3000)	A(3000)	A(3000), B(2500)	C(1500,2000)
2.2	225		A(1800)	A(1800,3500)	A(3000), B(1700)	A(2500), B(900,1200,2500)	B(750,1500,2000), C(1000)	C(1500), D(1200)
3.3	335	A(2100)		A(3500), B(2500)	A(2500), B(1300)	B(750,1500,2000)	B(1000), C(700)	C(1000), D(800)
4.7	475		A(1400), B(1400)	A(2000), B(800,1500)	A(1800), B(750,1000)	B(700,900), C(700)	B(700,1500), C(600), D(700)	C(800), D(500,700)
6.8	685		A(1800), B(1300)	A(1500), B(600,1200)	B(600,1000), C(700)	B(700), C(500,600,700)	C(350), D(400,500)	D(500,600)
10	106	A(1500), B(1500)	A(900,1800), B(1000)	A(1000), B(500,800), C(500)	B(500,1000), C(500,700)	C(300,500), D(500)	C(600), D(300)	D(500), E(250,300,400,500)
15	156	A(700,1500)	A(1000), B(450,600), C(700)	B(500,800) C(300,700)	B(500), C(400,450)	C(220,300), D(300)	D(300)	E(250)
22	226	A(500,900), B(375,600), C(500)	A(900), B(400,500,700), C(180,300)	B(400,600), C(300,375), D(500), D(700)	C(400), D(200,300)	C(275,400), D(200,300)	D(200,300,400), E(200,300)	
33	336	A(600), B(250,350,450,600)	B(250,425,500,650), C(375,500)	C(225,300), D(200)	C(300), D(160,200)	D(200,300)	E(250,300)	
47	476	B(250,350,500), C(300)	B(250,350,500,650), C(200,350), D(300)	C(350), D(200)	D(200)	D(125,150,250), E(125)		
68	686	B(250,350,500), C(150,200)	C(200,300), D(150)	C(200), D(150)	D(150,200,300), E(125,150,200)			
100	107	C(150), D(300)	C(150,200), D(100,125,150)	D(100,125,150), E(100,125,150)	E(100,150,200)			
150	157	C(150,200,250), D(125)	D(85,100), E(100)	E(100)				
220	227	D(100,125)	D(100,150), E(70,100,125,150)					
330	337	D(70,100), E(100,125,150)	E(50,60,100)					
470	477	D(45,60,100,200), E(45,50,60,100,200)						
680	687	E(45,60,100)						

Not recommended for new designs, higher voltage or smaller case size substitution are offered.

Released codes

Engineering samples - please contact manufacturer

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

HOW TO ORDER

TPS — **Type**

C — **Case Size**
See table above

107 — **Capacitance Code**
pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)

M — **Tolerance**
K = ±10%
M = ±20%

010 — **Rated DC Voltage**
006 = 6.3Vdc
010 = 10Vdc
016 = 16Vdc
020 = 20Vdc
025 = 25Vdc
035 = 35Vdc
050 = 50Vdc

T — **Packaging**
T = Automotive Lead Free 7" Reel
U = Automotive Lead Free 13" Reel

0150 — **ESR in mΩ**

V — **Dry Pack Option**
(D,E case sizes mandatory)

LEAD-FREE
LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C							
Capacitance Range:	0.22 µF to 680 µF							
Capacitance Tolerance:	±10%; ±20%							
Rated Voltage (V_R)	≤ +85°C:	6.3	10	16	20	25	35	50
Category Voltage (V_C)	≤ +125°C:	4	7	10	13	17	23	33
Surge Voltage (V_S)	≤ +85°C:	8	13	20	26	32	46	65
Surge Voltage (V_S)	≤ +125°C:	5	8	13	16	20	28	40
Temperature Range:	-55°C to +125°C							
Environmental Classification:	55/125/56 (IEC 68-2)							
Reliability:	1% per 1000 hours at 85°C, V_R with 0.1Ω/V series impedance, 60% confidence level							
Termination Finished:	Sn Plating (standard), Gold and SnPb Plating upon request							
	Meets requirements of AEC-Q200							

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TPS Automotive Range

Low ESR - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
6.3 Volt @ 85°C													
TPSA335*006T2100	A	3.3	6.3	85	4	125	0.5	6	2100	1	0.189	0.170	0.076
TPSA106*006T1500	A	10	6.3	85	4	125	0.6	6	1500	1	0.224	0.201	0.089
TPSB106*006T1500	B	10	6.3	85	4	125	0.6	6	1500	1	0.238	0.214	0.095
TPSA156*006T0700	A	15	6.3	85	4	125	0.9	6	700	1	0.327	0.295	0.131
TPSA156*006T1500	A	15	6.3	85	4	125	0.9	6	1500	1	0.224	0.201	0.089
TPSA226*006T0500	A	22	6.3	85	4	125	1.4	6	500	1	0.387	0.349	0.155
TPSA226*006T0900	A	22	6.3	85	4	125	1.4	6	900	1	0.289	0.260	0.115
TPSB226*006T0375	B	22	6.3	85	4	125	1.4	6	375	1	0.476	0.428	0.190
TPSB226*006T0600	B	22	6.3	85	4	125	1.4	6	600	1	0.376	0.339	0.151
TPSC226*006T0500	C	22	6.3	85	4	125	1.4	6	500	1	0.469	0.422	0.188
TPSA336*006T0600	A	33	6.3	85	4	125	2.1	8	600	1	0.354	0.318	0.141
TPSB336*006T0250	B	33	6.3	85	4	125	2.1	6	250	1	0.583	0.525	0.233
TPSB336*006T0350	B	33	6.3	85	4	125	2.1	6	350	1	0.493	0.444	0.197
TPSB336*006T0450	B	33	6.3	85	4	125	2.1	6	450	1	0.435	0.391	0.174
TPSB336*006T0600	B	33	6.3	85	4	125	2.1	6	600	1	0.376	0.339	0.151
TPSB476*006T0250	B	47	6.3	85	4	125	3	6	250	1	0.583	0.525	0.233
TPSB476*006T0350	B	47	6.3	85	4	125	3	6	350	1	0.493	0.444	0.197
TPSB476*006T0500	B	47	6.3	85	4	125	3	6	500	1	0.412	0.371	0.165
TPSC476*006T0300	C	47	6.3	85	4	125	3	6	300	1	0.606	0.545	0.242
TPSB686*006T0250	B	68	6.3	85	4	125	4	8	250	1	0.583	0.525	0.233
TPSB686*006T0350	B	68	6.3	85	4	125	4	8	350	1	0.493	0.444	0.197
TPSB686*006T0500	B	68	6.3	85	4	125	4	8	500	1	0.412	0.371	0.165
TPSC686*006T0150	C	68	6.3	85	4	125	4.3	6	150	1	0.856	0.771	0.343
TPSC686*006T0200	C	68	6.3	85	4	125	4.3	6	200	1	0.742	0.667	0.297
TPSC107*006T0150	C	100	6.3	85	4	125	6.3	6	150	1	0.856	0.771	0.343
TPSD107*006T0300V	D	100	6.3	85	4	125	6.3	6	300	3	0.707	0.636	0.283
TPSC157*006T0150	C	150	6.3	85	4	125	9.5	6	150	1	0.856	0.771	0.343
TPSC157*006T0200	C	150	6.3	85	4	125	9.5	6	200	1	0.742	0.667	0.297
TPSC157*006T0250	C	150	6.3	85	4	125	9.5	6	250	1	0.663	0.597	0.265
TPSD157*006T0125V	D	150	6.3	85	4	125	9.5	6	125	3	1.095	0.986	0.438
TPSD227*006T0100V	D	220	6.3	85	4	125	13.9	8	100	3	1.225	1.102	0.490
TPSD227*006T0125V	D	220	6.3	85	4	125	13.9	8	125	3	1.095	0.986	0.438
TPSD337*006T0070V	D	330	6.3	85	4	125	20.8	8	70	3	1.464	1.317	0.586
TPSD337*006T0100V	D	330	6.3	85	4	125	20.8	8	100	3	1.225	1.102	0.490
TPSE337*006T0100V	E	330	6.3	85	4	125	20.8	8	100	3	1.285	1.156	0.514
TPSE337*006T0125V	E	330	6.3	85	4	125	20.8	8	125	3	1.149	1.034	0.460
TPSE337*006T0150V	E	330	6.3	85	4	125	20.8	8	150	3	1.049	0.944	0.420
TPSD477*006T0045V	D	470	6.3	85	4	125	28	12	45	3	1.826	1.643	0.730
TPSD477*006T0060V	D	470	6.3	85	4	125	28	12	60	3	1.581	1.423	0.632
TPSD477*006T0100V	D	470	6.3	85	4	125	28	12	100	3	1.225	1.102	0.490
TPSD477*006T0200V	D	470	6.3	85	4	125	28	12	200	3	0.866	0.779	0.346
TPSE477*006T0045V	E	470	6.3	85	4	125	28	10	45	3	1.915	1.723	0.766
TPSE477*006T0050V	E	470	6.3	85	4	125	28	10	50	3	1.817	1.635	0.727
TPSE477*006T0060V	E	470	6.3	85	4	125	28	10	60	3	1.658	1.492	0.663
TPSE477*006T0100V	E	470	6.3	85	4	125	28	10	100	3	1.285	1.156	0.514
TPSE477*006T0200V	E	470	6.3	85	4	125	28	10	200	3	0.908	0.817	0.363
TPSE687*006T0045V	E	680	6.3	85	4	125	42.8	10	45	3	1.915	1.723	0.766
TPSE687*006T0060V	E	680	6.3	85	4	125	42.8	10	60	3	1.658	1.492	0.663
TPSE687*006T0100V	E	680	6.3	85	4	125	42.8	10	100	3	1.285	1.156	0.514
10 Volt @ 85°C													
TPSA225*010T1800	A	2.2	10	85	7	125	0.5	6	1800	1	0.204	0.184	0.082
TPSA475*010T1400	A	4.7	10	85	7	125	0.5	6	1400	1	0.231	0.208	0.093
TPSB475*010T1400	B	4.7	10	85	7	125	0.5	6	1400	1	0.246	0.222	0.099
TPSA685*010T1800	A	6.8	10	85	7	125	0.7	6	1800	1	0.204	0.184	0.082
TPSB685*010T1300	B	6.8	10	85	7	125	0.7	6	1300	1	0.256	0.230	0.102
TPSA106*010T0900	A	10	10	85	7	125	1	6	900	1	0.289	0.260	0.115
TPSA106*010T1800	A	10	10	85	7	125	1	6	1800	1	0.204	0.184	0.082
TPSB106*010T1000	B	10	10	85	7	125	1	6	1000	1	0.292	0.262	0.117
TPSA156*010T1000	A	15	10	85	7	125	1.5	6	1000	1	0.274	0.246	0.110
TPSB156*010T0450	B	15	10	85	7	125	1.5	6	450	1	0.435	0.391	0.174
TPSB156*010T0600	B	15	10	85	7	125	1.5	6	600	1	0.376	0.339	0.151
TPSC156*010T0700	C	15	10	85	7	125	1.5	6	700	1	0.396	0.357	0.159
TPSA226*010T0900	A	22	10	85	7	125	2.2	8	900	1	0.289	0.260	0.115
TPSB226*010T0400	B	22	10	85	7	125	2.2	6	400	1	0.461	0.415	0.184
TPSB226*010T0500	B	22	10	85	7	125	2.2	6	500	1	0.412	0.371	0.165
TPSB226*010T0700	B	22	10	85	7	125	2.2	6	700	1	0.348	0.314	0.139
TPSC226*010T0180	C	22	10	85	7	125	2.2	6	180	1	0.782	0.704	0.313
TPSC226*010T0300	C	22	10	85	7	125	2.2	6	300	1	0.606	0.545	0.242
TPSB336*010T0250	B	33	10	85	7	125	3.3	6	250	1	0.583	0.525	0.233
TPSB336*010T0425	B	33	10	85	7	125	3.3	6	425	1	0.447	0.402	0.179

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TPS Automotive Range

Low ESR - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
TPSB336*010T0500	B	33	10	85	7	125	3.3	6	500	1	0.412	0.371	0.165
TPSB336*010T0650	B	33	10	85	7	125	3.3	6	650	1	0.362	0.325	0.145
TPSC336*010T0375	C	33	10	85	7	125	3.3	6	375	1	0.542	0.487	0.217
TPSC336*010T0500	C	33	10	85	7	125	3.3	6	500	1	0.469	0.422	0.188
TPSB476*010T0250	B	47	10	85	7	125	4.7	8	250	1	0.583	0.525	0.233
TPSB476*010T0350	B	47	10	85	7	125	4.7	8	350	1	0.493	0.444	0.197
TPSB476*010T0500	B	47	10	85	7	125	4.7	8	500	1	0.412	0.371	0.165
TPSB476*010T0650	B	47	10	85	7	125	4.7	8	650	1	0.362	0.325	0.145
TPSC476*010T0200	C	47	10	85	7	125	4.7	6	200	1	0.742	0.667	0.297
TPSC476*010T0350	C	47	10	85	7	125	4.7	6	350	1	0.561	0.505	0.224
TPSD476*010T0300V	D	47	10	85	7	125	4.7	6	300	3	0.707	0.636	0.283
TPSC686*010T0200	C	68	10	85	7	125	6.8	6	200	1	0.742	0.667	0.297
TPSC686*010T0300	C	68	10	85	7	125	6.8	6	300	1	0.606	0.545	0.242
TPSD686*010T0150V	D	68	10	85	7	125	6.8	6	150	3	1.000	0.900	0.400
TPSC107*010T0150	C	100	10	85	7	125	10	8	150	1	0.856	0.771	0.343
TPSC107*010T0200	C	100	10	85	7	125	10	8	200	1	0.742	0.667	0.297
TPSD107*010T0100V	D	100	10	85	7	125	10	6	100	3	1.225	1.102	0.490
TPSD107*010T0125V	D	100	10	85	7	125	10	6	125	3	1.095	0.986	0.438
TPSD107*010T0150V	D	100	10	85	7	125	10	6	150	3	1.000	0.900	0.400
TPSD157*010T0085V	D	150	10	85	7	125	15	8	85	3	1.328	1.196	0.531
TPSD157*010T0100V	D	150	10	85	7	125	15	8	100	3	1.225	1.102	0.490
TPSE157*010T0100V	E	150	10	85	7	125	15	8	100	3	1.285	1.156	0.514
TPSD227*010T0100V	D	220	10	85	7	125	22	8	100	3	1.225	1.102	0.490
TPSD227*010T0150V	D	220	10	85	7	125	22	8	150	3	1.000	0.900	0.400
TPSE227*010T0070V	E	220	10	85	7	125	22	8	70	3	1.535	1.382	0.614
TPSE227*010T0100V	E	220	10	85	7	125	22	8	100	3	1.285	1.156	0.514
TPSE227*010T0125V	E	220	10	85	7	125	22	8	125	3	1.149	1.034	0.460
TPSE227*010T0150V	E	220	10	85	7	125	22	8	150	3	1.049	0.944	0.420
TPSE337*010T0050V	E	330	10	85	7	125	33	8	50	3	1.817	1.635	0.727
TPSE337*010T0060V	E	330	10	85	7	125	33	8	60	3	1.658	1.492	0.663
TPSE337*010T0100V	E	330	10	85	7	125	33	8	100	3	1.285	1.156	0.514
16 Volt @ 85°C													
TPSA105*016T6200	A	1.0	16	85	10	125	0.5	4	6200	1	0.110	0.099	0.044
TPSA225*016T1800	A	2.2	16	85	10	125	0.5	6	1800	1	0.204	0.184	0.082
TPSA225*016T3500	A	2.2	16	85	10	125	0.5	6	3500	1	0.146	0.132	0.059
TPSA335*016T3500	A	3.3	16	85	10	125	0.5	6	3500	1	0.146	0.132	0.059
TPSB335*016T2500	B	3.3	16	85	10	125	0.5	6	2500	1	0.184	0.166	0.074
TPSA475*016T2000	A	4.7	16	85	10	125	0.8	6	2000	1	0.194	0.174	0.077
TPSB475*016T0800	B	4.7	16	85	10	125	0.8	6	800	1	0.326	0.293	0.130
TPSB475*016T1500	B	4.7	16	85	10	125	0.8	6	1500	1	0.238	0.214	0.095
TPSA685*016T1500	A	6.8	16	85	10	125	1.1	6	1500	1	0.224	0.201	0.089
TPSB685*016T0600	B	6.8	16	85	10	125	1.1	6	600	1	0.376	0.339	0.151
TPSB685*016T1200	B	6.8	16	85	10	125	1.1	6	1200	1	0.266	0.240	0.106
TPSA106*016T1000	A	10	16	85	10	125	1.6	6	1000	1	0.274	0.246	0.110
TPSB106*016T0500	B	10	16	85	10	125	1.6	6	500	1	0.412	0.371	0.165
TPSB106*016T0800	B	10	16	85	10	125	1.6	6	800	1	0.326	0.293	0.130
TPSC106*016T0500	C	10	16	85	10	125	1.6	6	500	1	0.469	0.422	0.188
TPSB156*016T0500	B	15	16	85	10	125	2.4	6	500	1	0.412	0.371	0.165
TPSB156*016T0800	B	15	16	85	10	125	2.4	6	800	1	0.326	0.293	0.130
TPSC156*016T0300	C	15	16	85	10	125	2.4	6	300	1	0.606	0.545	0.242
TPSC156*016T0700	C	15	16	85	10	125	2.4	6	700	1	0.396	0.357	0.159
TPSB226*016T0400	B	22	16	85	10	125	3.5	6	400	1	0.461	0.415	0.184
TPSB226*016T0600	B	22	16	85	10	125	3.5	6	600	1	0.376	0.339	0.151
TPSC226*016T0300	C	22	16	85	10	125	3.5	6	300	1	0.606	0.545	0.242
TPSC226*016T0375	C	22	16	85	10	125	3.5	6	375	1	0.542	0.487	0.217
TPSD226*016T0500V	D	22	16	85	10	125	3.5	6	500	3	0.548	0.493	0.219
TPSD226*016T0700V	D	22	16	85	10	125	3.5	6	700	3	0.463	0.417	0.185
TPSC336*016T0225	C	33	16	85	10	125	5.3	6	225	1	0.699	0.629	0.280
TPSC336*016T0300	C	33	16	85	10	125	5.3	6	300	1	0.606	0.545	0.242
TPSD336*016T0200V	D	33	16	85	10	125	5.3	6	200	3	0.866	0.779	0.346
TPSC476*016T0350	C	47	16	85	10	125	7.5	6	350	1	0.561	0.505	0.224
TPSD476*016T0200V	D	47	16	85	10	125	7.5	6	200	3	0.866	0.779	0.346
TPSC686*016T0200	C	68	16	85	10	125	10.9	6	200	1	0.742	0.667	0.297
TPSD686*016T0150V	D	68	16	85	10	125	10.9	6	150	3	1.000	0.900	0.400
TPSD107*016T0100V	D	100	16	85	10	125	16	6	100	3	1.225	1.102	0.490
TPSD107*016T0125V	D	100	16	85	10	125	16	6	125	3	1.095	0.986	0.438
TPSD107*016T0150V	D	100	16	85	10	125	16	6	150	3	1.000	0.900	0.400
TPSE107*016T0100V	E	100	16	85	10	125	16	6	100	3	1.285	1.156	0.514
TPSE107*016T0125V	E	100	16	85	10	125	16	6	125	3	1.149	1.034	0.460
TPSE107*016T0150V	E	100	16	85	10	125	16	6	150	3	1.049	0.944	0.420
TPSE157*016T0100V	E	150	16	85	10	125	23	8	100	3	1.285	1.156	0.514

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TPS Automotive Range

Low ESR - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
20 Volt @ 85°C													
TPSA105*020T3000	A	1	20	85	13	125	0.5	4	3000	1	0.158	0.142	0.063
TPSA155*020T3000	A	1.5	20	85	13	125	0.5	6	3000	1	0.158	0.142	0.063
TPSA225*020T3000	A	2.2	20	85	13	125	0.5	6	3000	1	0.158	0.142	0.063
TPSB225*020T1700	B	2.2	20	85	13	125	0.5	6	1700	1	0.224	0.201	0.089
TPSA335*020T2500	A	3.3	20	85	13	125	0.7	6	2500	1	0.173	0.156	0.069
TPSB335*020T1300	B	3.3	20	85	13	125	0.7	6	1300	1	0.256	0.230	0.102
TPSA475*020T1800	A	4.7	20	85	13	125	0.9	6	1800	1	0.204	0.184	0.082
TPSB475*020T0750	B	4.7	20	85	13	125	0.9	6	750	1	0.337	0.303	0.135
TPSB475*020T1000	B	4.7	20	85	13	125	0.9	6	1000	1	0.292	0.262	0.117
TPSB685*020T0600	B	6.8	20	85	13	125	1.4	6	600	1	0.376	0.339	0.151
TPSB685*020T1000	B	6.8	20	85	13	125	1.4	6	1000	1	0.292	0.262	0.117
TPSC685*020T0700	C	6.8	20	85	13	125	1.4	6	700	1	0.396	0.357	0.159
TPSB106*020T0500	B	10	20	85	13	125	2	6	500	1	0.412	0.371	0.165
TPSB106*020T1000	B	10	20	85	13	125	2	6	1000	1	0.292	0.262	0.117
TPSC106*020T0500	C	10	20	85	13	125	2	6	500	1	0.469	0.422	0.188
TPSC106*020T0700	C	10	20	85	13	125	2	6	700	1	0.396	0.357	0.159
TPSB156*020T0500	B	15	20	85	13	125	3	6	500	1	0.412	0.371	0.165
TPSC156*020T0400	C	15	20	85	13	125	3	6	400	1	0.524	0.472	0.210
TPSC156*020T0450	C	15	20	85	13	125	3	6	450	1	0.494	0.445	0.198
TPSC226*020T0400	C	22	20	85	13	125	4.4	6	400	1	0.524	0.472	0.210
TPSD226*020T0200V	D	22	20	85	13	125	4.4	6	200	3	0.866	0.779	0.346
TPSD226*020T0300V	D	22	20	85	13	125	4.4	6	300	3	0.707	0.636	0.283
TPSC336*020T0300	C	33	20	85	13	125	6.6	6	300	1	0.606	0.545	0.242
TPSD336*020T0160V	D	33	20	85	13	125	6.6	6	160	3	0.968	0.871	0.387
TPSD336*020T0200V	D	33	20	85	13	125	6.6	6	200	3	0.866	0.779	0.346
TPSD476*020T0200V	D	47	20	85	13	125	9.4	6	200	3	0.866	0.779	0.346
TPSD686*020T0150V	D	68	20	85	13	125	13.6	6	150	3	1.000	0.900	0.400
TPSD686*020T0200V	D	68	20	85	13	125	13.6	6	200	3	0.866	0.779	0.346
TPSD686*020T0300V	D	68	20	85	13	125	13.6	6	300	3	0.707	0.636	0.283
TPSE686*020T0125V	E	68	20	85	13	125	13.6	6	125	3	1.149	1.034	0.460
TPSE686*020T0150V	E	68	20	85	13	125	13.6	6	150	3	1.049	0.944	0.420
TPSE686*020T0200V	E	68	20	85	13	125	13.6	6	200	3	0.908	0.817	0.363
TPSE107*020T0100V	E	100	20	85	13	125	20	6	100	3	1.285	1.156	0.514
TPSE107*020T0150V	E	100	20	85	13	125	20	6	150	3	1.049	0.944	0.420
TPSE107*020T0200V	E	100	20	85	13	125	20	6	200	3	0.908	0.817	0.363
25 Volt @ 85°C													
TPSA474*025T7000	A	0.47	25	85	17	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA684*025T6000	A	0.68	25	85	17	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA105*025T4000	A	1.0	25	85	17	125	0.5	4	4000	1	0.137	0.123	0.055
TPSA155*025T3000	A	1.5	25	85	17	125	0.5	6	3000	1	0.158	0.142	0.063
TPSA225*025T2500	A	2.2	25	85	17	125	0.6	6	2500	1	0.173	0.156	0.069
TPSB225*025T0900	B	2.2	25	85	17	125	0.6	6	900	1	0.307	0.277	0.123
TPSB225*025T1200	B	2.2	25	85	17	125	0.6	6	1200	1	0.266	0.240	0.106
TPSB225*025T2500	B	2.2	25	85	17	125	0.6	6	2500	1	0.184	0.166	0.074
TPSB335*025T0750	B	3.3	25	85	17	125	0.8	6	750	1	0.337	0.303	0.135
TPSB335*025T1500	B	3.3	25	85	17	125	0.8	6	1500	1	0.238	0.214	0.095
TPSB335*025T2000	B	3.3	25	85	17	125	0.8	6	2000	1	0.206	0.186	0.082
TPSB475*025T0700	B	4.7	25	85	17	125	1.2	6	700	1	0.348	0.314	0.139
TPSB475*025T0900	B	4.7	25	85	17	125	1.2	6	900	1	0.307	0.277	0.123
TPSC475*025T0700	C	4.7	25	85	17	125	1.2	6	700	1	0.396	0.357	0.159
TPSB685*025T0700	B	6.8	25	85	17	125	1.7	6	700	1	0.348	0.314	0.139
TPSC685*025T0500	C	6.8	25	85	17	125	1.7	6	500	1	0.469	0.422	0.188
TPSC685*025T0600	C	6.8	25	85	17	125	1.7	6	600	1	0.428	0.385	0.171
TPSC685*025T0700	C	6.8	25	85	17	125	1.7	6	700	1	0.396	0.357	0.159
TPSC106*025T0300	C	10	25	85	17	125	2.5	6	300	1	0.606	0.545	0.242
TPSC106*025T0500	C	10	25	85	17	125	2.5	6	500	1	0.469	0.422	0.188
TPSD106*025T0500V	D	10	25	85	17	125	2.5	6	500	3	0.548	0.493	0.219
TPSC156*025T0220	C	15	25	85	17	125	3.8	6	220	1	0.707	0.636	0.283
TPSC156*025T0300	C	15	25	85	17	125	3.8	6	300	1	0.606	0.545	0.242
TPSD156*025T0300V	D	15	25	85	17	125	3.8	6	300	3	0.707	0.636	0.283
TPSC226*025T0275	C	22	25	85	17	125	5.5	6	275	1	0.632	0.569	0.253
TPSC226*025T0400	C	22	25	85	17	125	5.5	6	400	1	0.524	0.472	0.210
TPSD226*025T0200V	D	22	25	85	17	125	5.5	6	200	3	0.866	0.779	0.346
TPSD226*025T0300V	D	22	25	85	17	125	5.5	6	300	3	0.707	0.636	0.283
TPSD336*025T0200V	D	33	25	85	17	125	8.3	6	200	3	0.866	0.779	0.346
TPSD336*025T0300V	D	33	25	85	17	125	8.3	6	300	3	0.707	0.636	0.283
TPSD476*025T0125V	D	47	25	85	17	125	11.8	6	125	3	1.095	0.986	0.438
TPSD476*025T0150V	D	47	25	85	17	125	11.8	6	150	3	1.000	0.900	0.400
TPSD476*025T0250V	D	47	25	85	17	125	11.8	6	250	3	0.775	0.697	0.310
TPSE476*025T0125V	E	47	25	85	17	125	11.8	6	125	3	1.149	1.034	0.460

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TPS Automotive Range

Low ESR - Automotive Product Range

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	Rated Temperature (°C)	Category Voltage (V)	Category Temperature (°C)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @ 100kHz	MSL	100kHz RMS Current (A)		
											25°C	85°C	125°C
35 Volt @ 85°C													
TPSA334*035T6000	A	0.33	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA474*035T6000	A	0.47	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA684*035T6000	A	0.68	35	85	23	125	0.5	4	6000	1	0.112	0.101	0.045
TPSA105*035T3000	A	1	35	85	23	125	0.5	4	3000	1	0.158	0.142	0.063
TPSB105*035T2000	B	1	35	85	23	125	0.5	4	2000	1	0.206	0.186	0.082
TPSA155*035T3000	A	1.5	35	85	23	125	0.5	6	3000	1	0.158	0.142	0.063
TPSB155*035T2500	B	1.5	35	85	23	125	0.5	6	2500	1	0.184	0.166	0.074
TPSB225*035T0750	B	2.2	35	85	23	125	0.8	6	750	1	0.337	0.303	0.135
TPSB225*035T1500	B	2.2	35	85	23	125	0.8	6	1500	1	0.238	0.214	0.095
TPSB225*035T2000	B	2.2	35	85	23	125	0.8	6	2000	1	0.206	0.186	0.082
TPSC225*035T1000	C	2.2	35	85	23	125	0.8	6	1000	1	0.332	0.298	0.133
TPSB335*035T1000	B	3.3	35	85	23	125	1.2	6	1000	1	0.292	0.262	0.117
TPSC335*035T0700	C	3.3	35	85	23	125	1.2	6	700	1	0.396	0.357	0.159
TPSB475*035T0700	B	4.7	35	85	23	125	1.6	6	700	1	0.348	0.314	0.139
TPSB475*035T1500	B	4.7	35	85	23	125	1.6	6	1500	1	0.238	0.214	0.095
TPSC475*035T0600	C	4.7	35	85	23	125	1.6	6	600	1	0.428	0.385	0.171
TPSD475*035T0700V	D	4.7	35	85	23	125	1.6	6	700	3	0.463	0.417	0.185
TPSC685*035T0350	C	6.8	35	85	23	125	2.4	6	350	1	0.561	0.505	0.224
TPSD685*035T0400V	D	6.8	35	85	23	125	2.4	6	400	3	0.612	0.551	0.245
TPSD685*035T0500V	D	6.8	35	85	23	125	2.4	6	500	3	0.548	0.493	0.219
TPSC106*035T0600	C	10	35	85	23	125	3.5	6	600	1	0.428	0.385	0.171
TPSD106*035T0300V	D	10	35	85	23	125	3.5	6	300	3	0.707	0.636	0.283
TPSD156*035T0300V	D	15	35	85	23	125	5.3	6	300	3	0.707	0.636	0.283
TPSD226*035T0200V	D	22	35	85	23	125	7.7	6	200	3	0.866	0.779	0.346
TPSD226*035T0300V	D	22	35	85	23	125	7.7	6	300	3	0.707	0.636	0.283
TPSD226*035T0400V	D	22	35	85	23	125	7.7	6	400	3	0.612	0.551	0.245
TPSE226*035T0200V	E	22	35	85	23	125	7.7	6	200	3	0.908	0.817	0.363
TPSE226*035T0300V	E	22	35	85	23	125	7.7	6	300	3	0.742	0.667	0.297
TPSE336*035T0250V	E	33	35	85	23	125	11.6	6	250	3	0.812	0.731	0.325
TPSE336*035T0300V	E	33	35	85	23	125	11.6	6	300	3	0.742	0.667	0.297
50 Volt @ 85°C													
TPSA224*050T7000	A	0.22	50	85	33	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA334*050T7000	A	0.33	50	85	33	125	0.5	4	7000	1	0.104	0.093	0.041
TPSA474*050T6500	A	0.47	50	85	33	125	0.5	4	6500	1	0.107	0.097	0.043
TPSB474*050T6000	B	0.47	50	85	33	125	0.5	4	6000	1	0.119	0.107	0.048
TPSB684*050T4000	B	0.68	50	85	33	125	0.5	4	4000	1	0.146	0.131	0.058
TPSB105*050T3000	B	1	50	85	33	125	0.5	6	3000	1	0.168	0.151	0.067
TPSC105*050T2500	C	1	50	85	33	125	0.5	4	2500	1	0.210	0.189	0.084
TPSC155*050T1500	C	1.5	50	85	33	125	0.8	6	1500	1	0.271	0.244	0.108
TPSC155*050T2000	C	1.5	50	85	33	125	0.8	6	2000	1	0.235	0.211	0.094
TPSC225*050T1500	C	2.2	50	85	33	125	1.1	8	1500	1	0.271	0.244	0.108
TPSD225*050T1200V	D	2.2	50	85	33	125	1.1	6	1200	3	0.354	0.318	0.141
TPSC335*050T1000	C	3.3	50	85	33	125	1.6	6	1000	1	0.332	0.298	0.133
TPSD335*050T0800V	D	3.3	50	85	33	125	1.7	6	800	3	0.433	0.390	0.173
TPSC475*050T0800	C	4.7	50	85	33	125	2.4	6	800	1	0.371	0.334	0.148
TPSD475*050T0500V	D	4.7	50	85	33	125	2.4	6	500	3	0.548	0.493	0.219
TPSD475*050T0700V	D	4.7	50	85	33	125	2.4	6	700	3	0.463	0.417	0.185
TPSD685*050T0500V	D	6.8	50	85	33	125	3.4	6	500	3	0.548	0.493	0.219
TPSD685*050T0600V	D	6.8	50	85	33	125	3.4	6	600	3	0.500	0.450	0.200
TPSD106*050T0500V	D	10	50	85	33	125	5	6	500	3	0.548	0.493	0.219
TPSE106*050T0250V	E	10	50	85	33	125	5	6	250	3	0.812	0.731	0.325
TPSE106*050T0300V	E	10	50	85	33	125	5	6	300	3	0.742	0.667	0.297
TPSE106*050T0400V	E	10	50	85	33	125	5	6	400	3	0.642	0.578	0.257
TPSE106*050T0500V	E	10	50	85	33	125	5	6	500	3	0.574	0.517	0.230
TPSE156*050T0250V	E	15	50	85	33	125	7.5	6	250	3	0.812	0.731	0.325

Moisture Sensitivity Level (MSL) is defined according to J-STD-020

*Please use "U" instead of "T" in the suffix letter for 13'' reel packaging

Please use specific PN for automotive version – see "HOW TO ORDER".

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

The EIA & CECC standards for low ESR Solid Tantalum Capacitors allow an ESR movement to 1.25 times catalogue limit post mounting.

For typical weight and composition see page 213.

NOTE: AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.

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TPS Automotive Range

Low ESR - Automotive Product Range

QUALIFICATION TABLE

TEST	TPS automotive series (Temperature range -55ºC to +125ºC)		
	Condition	Characteristics	
Endurance	Determine after application of rated voltage for 2000 +48/-0 hours at 85±2ºC and then leaving 1-2 hours at room temperature. Also determine of 125ºC temperature, category voltage for 2000 +48/-0 hours and then leaving 1-2 hours at room temperature. Power supply impedance to be ≤0.1Ω/V.	Visual examination	no visible damage
		DCL	1.25 x initial limit
		ΔC/C	within ±10% of initial value
		DF	initial limit
		ESR	1.25 x initial limit
Storage Life	125ºC, 0V, 2000h	Visual examination	no visible damage
		DCL	1.25 x initial limit
		ΔC/C	within ±10% of initial value
		DF	initial limit
		ESR	1.25 x initial limit
Humidity	Determine after storage without applied voltage at 65±2ºC and 95±2% relative humidity for 500 hours and then recovery 1-2 hours at room temperature.	Visual examination	no visible damage
		DCL	1.5 x initial limit
		ΔC/C	within ±10% of initial value
		DF	1.2 x initial limit
		ESR	1.25 x initial limit
Biased Humidity	Determine after leaving for 1000 hours at 85±2ºC, 85% relative humidity and rated voltage and then recovery 1-2 hours at room temperature.	Visual examination	no visible damage
		DCL	2 x initial limit
		ΔC/C	within ±10% of initial value
		DF	1.2 x initial limit
		ESR	1.25 x initial limit

Temperature Stability

Step	Temperature°C	Duration(min)
1	+20±2	15
2	-55+0/-3	15
3	+20±2	15
4	+85+3/-0	15
5	+125+3/-0	15
6	+20±2	15

	+20ºC	-55ºC	+20ºC	+85ºC	+125ºC	+20ºC
DCL	IL*	n/a	IL*	10 x IL*	12.5 x IL*	IL*
ΔC/C	n/a	+0/-10%	±5%	+10/-0%	+12/-0%	±5%
DF	IL*	1.5 x IL*	IL*	1.5 x IL*	2 x IL*	IL*
ESR	1.25 x IL*	2.5 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*	1.25 x IL*

Surge Voltage	Test temperature: 125ºC+3/0ºC Test voltage: Category voltage at 125ºC Surge voltage: 1.3 x category voltage at 125ºC Series protection resistance 1000±100Ω Discharge resistance: 1000Ω Number of cycles: 1000x Cycle duration: 6 min; 30 sec charge, 5 min 30 sec discharge	Visual examination	no visible damage
		DCL	initial limit
		ΔC/C	within ±5% of initial value
		DF	initial limit
		ESR	1.25 x initial limit

*Initial Limit