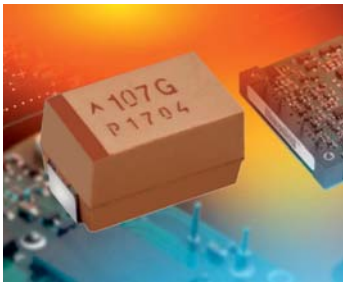
TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode



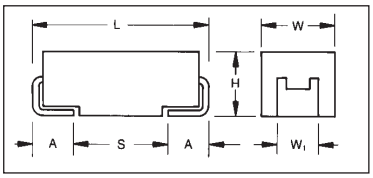
- Conductive polymer electrode reduces ignition failure mode
- Lower ESR
- 3x reflow 260°C compatible
- CV range: 0.47-470µF / 2.5-125V
- 16 case sizes available

Elektra Award 2010

LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT



For part marking see page 153

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)
G	1206	3216-15	3.20 (0.126)	1.60 (0.063)	1.50 (0.059) max	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
H	1210	3528-15	3.50 (0.138)	2.80 (0.110)	1.50 (0.059) max	2.20 (0.087)	0.80 (0.031)	1.40 (0.055)
K	1206	3216-10	3.20 (0.126)	1.60 (0.063)	1.00 (0.039) max	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
N	0805	2012-10	2.05 (0.081)	1.30 (0.051)	1.00 (0.039) max	1.00 (0.039)	0.50 (0.020)	0.85 (0.033)
P	0805	2012-15	2.05 (0.081)	1.35 (0.050)	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)
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.

HOW TO ORDER

TCJ	A	226	M	004	R	0300
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** 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 063=63Vdc 075=75Vdc 100=100Vdc 125=125Vdc	**Packaging** R = Pure Tin 7" Reel S = Pure Tin 13" Reel	**ESR in mΩ**

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C																		
Capacitance Range:	0.47 µF to 470 µF																		
Capacitance Tolerance:	±20%																		
Leakage Current DCL:	0.1CV																		
Rated Voltage (V_R)	≤ +85°C:	2.5	4	6.3	10	16	2.5	4	6.3	10	16	20	25	35	50	63	75	100	125
Category Voltage (V_C)	≤ +105°C:						2	3.2	5	8	12.8	16	20	28	40	50.4	60	80	100
Category Voltage (V_C)	≤ +125°C:	1.7	2.7	4	7	10													
Surge Voltage (V_S)	≤ +85°C:	3.3	5.2	8	13	20	3.25	5.2	8	13	20.8	26	33	46	65	81.9	97.5	130	162.5
Surge Voltage (V_S)	≤ +105°C:						2.5	4	6	10	16	20	25	35	50	63	75	100	125
Surge Voltage (V_S)	≤ +125°C:	2.2	3.4	5	8	13													
Temperature Range:	-55°C to +125°C, -55ºC to +105ºC																		
Reliability:	1% per 1000 hours at 85°C, V_R with 0.1Ω/V series impedance, 60% confidence level																		

TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode

CAPACITANCE AND RATED VOLTAGE, VR (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

125ºC RATED PARTS

Capacitance		Rated Voltage DC (V_R) to 85°C				
µF	Code	2.5V (e)	4V (G)	6.3V (J)	10V (A)	16V (C)
1.0	105					
4.7	475				K(500), R(500)	
6.8	685					A(200)
10	106			A(300), R(500)	A(300)	A(200), B(200), T(150,200)
15	156		A(300)	A(300)	A(200)	B(150)
22	226		A(300)	A(300), K(400) R(500), S(400), T(150)	B(300), T(150)	B(150)
33	336		A(300)	A(200) B(70,200) T(150)	B(70,200) C(100) T(70,150)	
47	476		A(200), T(80)	A(200), B(70) K(400), P(500) T(80,120)	B(70), C(100)	
68	686	A(250)	A(250), B(70) T(80)	B(55,70) C(100), W(70)		
100	107	A(200), B(70)	A(200), B(70) G(300), T(150)	B(45,69,70)		
150	157	B(70)	B(70)	B(45,69,70) H(200), W(40,70)		
220	227		B(45,70)	B(70,200)		

105ºC RATED PARTS

Cap		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)	63V (J)	75V (P)	100V (A)	125V (B)
0.47	474										B(400)			
0.68	684									B(400)	B(300)			
1.0	105							N*, P(500)	A(250)*	A*, B(300)	B(300), C(300)			
1.5	155								B(200)	B(300), C(300)	C(300)			
2.2	225								B(200)	C(300)	C(200)			
3.3	335								B(200)	C(200)	C(200)			D(250)
4.7	475							B(90,150)	B(200), C(200)	C(200)	C(200), D(120)	D(150)		
6.8	685							B(90,150)	C(200)	C(200) D(120)	D(120) E(100,150)	D(120)	V(250)	
10	106			N(250,500)				B(90,150)	B(200), C(200),Y(70)	D(120) E(70,100)	E(100,150)			
15	156							B(100,150) Y(70,200)*	C(200), D(70,100) W*,Y(200)*	E(70,100)				
22	226			N(500)	T(70)		Y(70)	B(150), C(100) D(60,100), Y(70)	D(70,100), Y(70)*					
33	336					Y(45,60,70)	Y(70)	D(60,100) Y(60,70,100)	D(70,100) E(55,70)					
47	476			K(150,200), R(500), T(55,70)		Y(45,70)	D(55)*, Y(70)	D(60,100), E(50)	E(55)					
68	686			T(200)	D(45,55) Y(45,55)	D(45,55) Y(45,50)	D(55), E(45)	E(50)						
100	107			A(70)*, T(70,200)	D(45,55), Y(45,55)	E(40)	D(55), E(45)	E(80)						
150	157			B(35), Y(40)	D(40,45,55) Y(40,45,55)	E(40)								
220	227	A(35)* B(35,45,70)	B(35,60) Y(40)	D(35,40,50), W(100)* Y(35,40,50)	D(40,50), Y(40,50)									
330	337	B(35,45,70) Y(40)	D(40,50) Y(40,50)	D(40,50) Y(40,50)										
470	477	D(40,50) Y(40,50)	D(40,50) Y(40,50)											

Available Ratings, (ESR ratings in mOhms in brackets)

Engineering samples - please contact manufacturer

*Codes under development – subject to change

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

TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25ºC	85ºC	125ºC	25ºC	85ºC	125ºC
2.5 Volt @ 85ºC (1.7 Volt @ 125ºC)													
TCJA686M002#0250	A	68	2.5	17.0	6	250	3	548	493	219	137	123	55
TCJA107M002#0200	A	100	2.5	25.0	6	200	3	612	551	245	122	110	49
TCJB107M002#0070	B	100	2.5	25.0	6	70	3	1102	992	441	77	69	31
TCJB157M002#0070	B	150	2.5	37.5	6	70	3	1102	992	441	77	69	31
4 Volt @ 85°C (2.7 Volt @ 125°C)													
TCJA156M004#0300	A	15	4	6.0	6	300	3	500	450	200	150	135	60
TCJA226M004#0300	A	22	4	8.8	6	300	3	500	450	200	150	135	60
TCJA336M004#0300	A	33	4	13.2	6	300	3	500	450	200	150	135	60
TCJA476M004#0200	A	47	4	18.8	6	200	3	612	551	245	122	110	49
TCJT476M004#0080	T	47	4	18.8	8	80	3	1000	900	400	80	72	32
TCJA686M004#0250	A	68	4	27.2	6	250	3	548	493	219	137	123	55
TCJB686M004#0070	B	68	4	27.2	6	70	3	1102	992	441	77	69	31
TCJT686M004#0080	T	68	4	27.2	8	80	3	1000	900	400	80	72	32
TCJA107M004#0200	A	100	4	40.0	6	200	3	612	551	245	122	110	49
TCJB107M004#0070	B	100	4	40.0	8	70	3	1102	992	441	77	69	31
TCJG107M004#0300	G	100	4	40.0	10	300	3	483	435	193	145	130	58
TCJT107M004#0150	T	100	4	40.0	8	150	3	730	657	292	110	99	44
TCJB157M004#0070	B	150	4	60.0	6	70	3	1102	992	441	77	69	31
TCJB227M004#0045	B	220	4	88.0	10	45	3	1374	1237	550	62	56	25
TCJB227M004#0070	B	220	4	88.0	10	70	3	1102	992	441	77	69	31
6.3 Volt @ 85°C (4 Volt @ 125°C)													
TCJA106M006#0300	A	10	6.3	6.0	6	300	3	500	450	200	150	135	60
TCJR106M006#0500	R	10	6.3	6.0	6	500	3	332	298	133	166	149	66
TCJA156M006#0300	A	15	6.3	9.0	6	300	3	500	450	200	150	135	60
TCJA226M006#0300	A	22	6.3	13.2	6	300	3	500	450	200	150	135	60
TCJK226M006#0400	K	22	6.3	13.2	8	400	3	403	363	161	161	145	64
TCJR226M006#0500	R	22	6.3	13.2	10	500	3	332	298	133	166	149	66
TCJS226M006#0400	S	22	6.3	13.2	8	400	3	403	363	161	161	145	64
TCJT226M006#0150	T	22	6.3	13.2	6	150	3	730	657	292	110	99	44
TCJA336M006#0200	A	33	6.3	19.8	6	200	3	612	551	245	122	110	49
TCJB336M006#0070	B	33	6.3	19.8	6	70	3	1102	992	441	77	69	31
TCJB336M006#0200	B	33	6.3	19.8	6	200	3	652	587	261	130	117	52
TCJT336M006#0150	T	33	6.3	19.8	8	150	3	730	657	292	110	99	44
TCJA476M006#0200	A	47	6.3	28.2	6	200	3	612	551	245	122	110	49
TCJB476M006#0070	B	47	6.3	28.2	6	70	3	1102	992	441	77	69	31
TCJK476M006#0400	K	47	6.3	28.2	6	400	3	403	363	161	161	146	64
TCJP476M006#0500	P	47	6.3	28.2	10	500	3	346	312	139	173	156	69
TCJT476M006#0080	T	47	6.3	28.2	8	80	3	1000	900	400	80	72	32
TCJT476M006#0120	T	47	6.3	28.2	8	120	3	816	735	327	98	88	39
TCJB686M006#0055	B	68	6.3	40.8	8	55	3	1243	1119	497	68	62	27
TCJB686M006#0070	B	68	6.3	40.8	8	70	3	1102	992	441	77	69	31
TCJC686M006#0100	C	68	6.3	40.8	6	100	3	1049	944	420	105	94	42
TCJW686M006#0070	W	68	6.3	40.8	8	70	3	1134	1021	454	79	71	32
TCJB107M006#0045	B	100	6.3	60.0	10	45	3	1374	1237	550	62	56	25
TCJB107M006#0069	B	100	6.3	60.0	10	69	3	1110	999	444	77	69	31
TCJB107M006#0070	B	100	6.3	60.0	10	70	3	1102	992	441	77	69	31
TCJB157M006#0045	B	150	6.3	90.0	10	45	3	1374	1237	550	62	56	25
TCJB157M006#0069	B	150	6.3	90.0	10	69	3	1110	999	444	77	69	31
TCJB157M006#0070	B	150	6.3	90.0	10	70	3	1102	992	441	77	69	31
TCJH157M006#0200	H	150	6.3	90.0	6	200	3	632	569	253	126	114	51
TCJW157M006#0040	W	150	6.3	90.0	6	40	3	1500	1350	600	60	54	24
TCJW157M006#0070	W	150	6.3	90.0	6	70	3	1134	1021	454	79	71	32
TCJB227M006#0070	B	220	6.3	132.0	10	70	3	1102	992	441	77	69	31
TCJB227M006#0200	B	220	6.3	132.0	10	200	3	652	587	261	130	117	52
10 Volt @ 85°C (7 Volt @ 125°C)													
TCJK475M010#0500	K	4.7	10	4.7	6	500	3	361	324	144	180	162	72
TCJR475M010#0500	R	4.7	10	4.7	6	500	3	332	298	133	166	149	66
TCJA106M010#0300	A	10	10	10.0	6	300	3	500	450	200	150	135	60
TCJA156M010#0200	A	15	10	15.0	6	200	3	612	551	245	122	110	49

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

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

ESR allowed to move up to 1.25 times catalog limit post mounting.

For typical weight and composition see page 146.

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.

TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25°C	85°C	125°C	25°C	85°C	125°C
TCJB226M010#0300	B	22	10	22.0	6	300	3	532	479	213	160	144	64
TCJT226M010#0150	T	22	10	22.0	6	150	3	730	657	292	110	99	44
TCJB336M010#0070	B	33	10	33.0	6	70	3	1102	992	441	77	69	31
TCJB336M010#0200	B	33	10	33.0	6	200	3	652	587	261	130	117	52
TCJC336M010#0100	C	33	10	33.0	6	100	3	1049	944	420	105	94	42
TCJT336M010#0070	T	33	10	33.0	6	70	3	1069	962	428	75	67	30
TCJT336M010#0150	T	33	10	33.0	6	150	3	730	657	292	110	99	44
TCJB476M010#0070	B	47	10	47.0	6	70	3	1102	992	441	77	69	31
TCJC476M010#0100	C	47	10	47.0	6	100	3	1049	944	420	105	94	42
16 Volt @ 85°C (10 Volt @ 125°C)													
TCJA685M016#0200	A	6.8	16	10.9	6	200	3	612	551	245	122	110	49
TCJA106M016#0200	A	10	16	16.0	6	200	3	612	551	245	122	110	49
TCJB106M016#0200	B	10	16	16.0	6	200	3	652	587	261	130	117	52
TCJT106M016#0150	T	10	16	16.0	6	150	3	730	657	292	110	99	44
TCJT106M016#0200	T	10	16	16.0	6	200	3	632	569	253	126	114	51
TCJB156M016#0150	B	15	16	24.0	6	150	3	753	677	301	113	102	45
TCJB226M016#0150	B	22	16	35.2	6	150	3	753	677	301	113	102	45

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

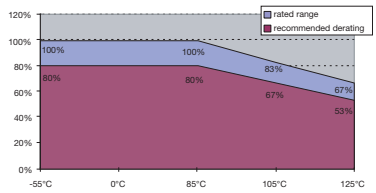
All technical data relates to an ambient temperature of +25ºC. Capacitance and DF are measured at 120Hz, 0.5RMS with DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

ESR allowed to move up to 1.25 times catalog limit post mounting.

For typical weight and composition see page 146.

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.

Voltage Derating vs Temperature Recommendation



AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25°C	85°C	105°C	25°C	85°C	105°C
2.5 Volt @ 85°C (2 Volt @ 105°C)													
TCJB227M002#0035	B	220	2.5	55	8	35	3	1558	1403	1013	55	49	35
TCJB227M002#0045	B	220	2.5	55	8	45	3	1374	1237	893	62	56	40
TCJB227M002#0070	B	220	2.5	55	8	70	3	1102	992	716	77	69	50
TCJB337M002#0035	B	330	2.5	82.5	8	35	3	1558	1403	1013	55	49	35
TCJB337M002#0045	B	330	2.5	82.5	8	45	3	1374	1237	893	62	56	40
TCJB337M002#0070	B	330	2.5	82.5	8	70	3	1102	992	716	77	69	50
TCJY337M002#0040	Y	330	2.5	82.5	6	40	3	1768	1591	1149	71	64	46
TCJD477M002#0040	D	470	2.5	117.5	6	40	3	1936	1743	1259	77	70	50
TCJD477M002#0050	D	470	2.5	117.5	6	50	3	1732	1559	1126	87	78	56
TCJY477M002#0040	Y	470	2.5	117.5	6	40	3	1768	1591	1149	71	64	46
TCJY477M002#0050	Y	470	2.5	117.5	6	50	3	1581	1423	1028	79	71	51
4 Volt @ 85°C (3.2 Volt @ 105°C)													
TCJB227M004#0035	B	220	4	88	10	35	3	1558	1403	1013	55	49	35
TCJB227M004#0060	B	220	4	88	10	60	3	1190	1071	774	71	64	46
TCJY227M004#0040	Y	220	4	88	6	40	3	1768	1591	1149	71	64	46
TCJD337M004#0040	D	330	4	132	6	40	3	1936	1743	1259	77	70	50
TCJD337M004#0050	D	330	4	132	6	50	3	1732	1559	1126	87	78	56
TCJY337M004#0040	Y	330	4	132	6	40	3	1768	1591	1149	71	64	46
TCJY337M004#0050	Y	330	4	132	6	50	3	1581	1423	1028	79	71	51
TCJD477M004#0040	D	470	4	188	6	40	3	1936	1743	1259	77	70	50
TCJD477M004#0050	D	470	4	188	6	50	3	1732	1559	1126	87	78	56
TCJY477M004#0040	Y	470	4	188	6	40	3	1768	1591	1149	71	64	46
TCJY477M004#0050	Y	470	4	188	6	50	3	1581	1423	1028	79	71	51
6.3 Volt @ 85°C (5 Volt @ 105°C)													
TCJN106M006#0250	N	10	6.3	6.0	6	250	3	447	402	291	112	101	73
TCJN106M006#0500	N	10	6.3	6.0	6	500	3	316	285	206	158	142	103
TCJN226M006#0500	N	22	6.3	13.2	10	500	3	316	285	206	158	142	103
TCJK476M006#0150	K	47	6.3	28.2	6	150	3	658	592	428	99	89	64
TCJK476M006#0200	K	47	6.3	28.2	6	200	3	570	513	371	114	103	74
TCJR476M006#0500	R	47	6.3	28.2	10	500	3	332	298	216	166	149	108
TCJT476M006#0055	T	47	6.3	28.2	8	55	3	1206	1085	784	66	60	43
TCJT476M006#0070	T	47	6.3	28.2	8	70	3	1069	962	695	75	67	49
TCJT686M006#0200	T	68	6.3	40.8	8	200	3	632	569	411	126	114	82
TCJT107M006#0070	T	100	6.3	60	10	70	3	1069	962	695	75	67	49
TCJT107M006#0200	T	100	6.3	60	10	200	3	632	569	411	126	114	82
TCJB157M006#0035	B	150	6.3	90	10	35	3	1558	1403	1013	55	49	35
TCJY157M006#0040	Y	150	6.3	90	6	40	3	1768	1591	1149	71	64	46
TCJD227M006#0035	D	220	6.3	132	6	35	3	2070	1863	1346	72	65	47
TCJD227M006#0040	D	220	6.3	132	6	40	3	1936	1743	1259	77	70	50

TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25ºC	85ºC	105ºC	25ºC	85ºC	105ºC
TCJD227M006#0050	D	220	6.3	132	6	50	3	1732	1559	1126	87	78	56
TCJY227M006#0035	Y	220	6.3	132	6	35	3	1890	1701	1228	66	60	43
TCJY227M006#0040	Y	220	6.3	132	6	40	3	1768	1591	1149	71	64	46
TCJY227M006#0050	Y	220	6.3	132	6	50	3	1581	1423	1028	79	71	51
TCJD337M006#0040	D	330	6.3	198	6	40	3	1936	1743	1259	77	70	50
TCJD337M006#0050	D	330	6.3	198	6	50	3	1732	1559	1126	87	78	56
TCJY337M006#0040	Y	330	6.3	198	12	40	3	1768	1591	1149	71	64	46
TCJY337M006#0050	Y	330	6.3	198	12	50	3	1581	1423	1028	79	71	51
10 Volt @ 85°C (8 Volt @ 105°C)													
TCJT226M010#0070	T	22	10	22	6	70	3	1069	962	695	75	67	49
TCJD686M010#0045	D	68	10	68	6	45	3	1826	1643	1187	82	74	53
TCJD686M010#0055	D	68	10	68	6	55	3	1651	1486	1073	91	82	59
TCJY686M010#0045	Y	68	10	68	6	45	3	1667	1500	1083	75	68	49
TCJY686M010#0055	Y	68	10	68	6	55	3	1508	1357	980	83	75	54
TCJD107M010#0045	D	100	10	100	6	45	3	1826	1643	1187	82	74	53
TCJD107M010#0055	D	100	10	100	6	55	3	1651	1486	1073	91	82	59
TCJY107M010#0045	Y	100	10	100	6	45	3	1667	1500	1083	75	68	49
TCJY107M010#0055	Y	100	10	100	6	55	3	1508	1357	980	83	75	54
TCJD157M010#0040	D	150	10	150	6	40	3	1936	1743	1259	77	70	50
TCJD157M010#0045	D	150	10	150	6	45	3	1826	1643	1187	82	74	53
TCJD157M010#0055	D	150	10	150	6	55	3	1651	1486	1073	91	82	59
TCJY157M010#0040	Y	150	10	150	6	40	3	1768	1591	1149	71	64	46
TCJY157M010#0045	Y	150	10	150	6	45	3	1667	1500	1083	75	68	49
TCJY157M010#0055	Y	150	10	150	6	55	3	1508	1357	980	83	75	54
TCJD227M010#0040	D	220	10	220	6	40	3	1936	1743	1259	77	70	50
TCJD227M010#0050	D	220	10	220	6	50	3	1732	1559	1126	87	78	56
TCJY227M010#0040	Y	220	10	220	6	40	3	1768	1591	1149	71	64	46
TCJY227M010#0050	Y	220	10	220	6	50	3	1581	1423	1028	79	71	51
16 Volt @ 85°C (12.8 Volt @ 105°C)													
TCJY336M016#0045	Y	33	16	52.8	6	45	3	1667	1500	1083	75	68	49
TCJY336M016#0060	Y	33	16	52.8	6	60	3	1443	1299	938	87	78	56
TCJY336M016#0070	Y	33	16	52.8	6	70	3	1336	1203	869	94	84	61
TCJY476M016#0045	Y	47	16	75.2	6	45	3	1667	1500	1083	75	68	49
TCJY476M016#0070	Y	47	16	75.2	6	70	3	1336	1203	869	94	84	61
TCJD686M016#0045	D	68	16	108.8	6	45	3	1826	1643	1187	82	74	53
TCJD686M016#0055	D	68	16	108.8	6	55	3	1651	1486	1073	91	82	59
TCJY686M016#0045	Y	68	16	108.8	6	45	3	1667	1500	1083	75	68	49
TCJY686M016#0050	Y	68	16	108.8	6	50	3	1581	1423	1028	79	71	51
TCJE107M016#0040	E	100	16	160.0	6	40	3	2031	1828	1320	81	73	53
TCJE157M016#0040	E	150	16	240.0	6	40	3	2031	1828	1320	81	73	53
20 Volt @ 85°C (16 Volt @ 105°C)													
TCJY226M020#0070	Y	22	20	44.0	6	70	3	1336	1203	869	94	84	61
TCJY336M020#0070	Y	33	20	66.0	6	70	3	1336	1203	869	94	84	61
TCJY476M020#0070	Y	47	20	94.0	6	70	3	1336	1203	869	94	84	61
TCJD686M020#0055	D	68	20	136.0	6	55	3	1651	1486	1073	91	82	59
TCJE686M020#0045	E	68	20	136.0	6	45	3	1915	1723	1245	86	78	56
TCJD107M020#0055	D	100	20	200.0	6	55	3	1651	1486	1073	91	82	59
TCJE107M020#0045	E	100	20	200.0	6	45	3	1915	1723	1245	86	78	56
25 Volt @ 85°C (20 Volt @ 105°C)													
TCJP105M025#0500	P	1.0	25	2.5	6	500	3	346	312	225	173	156	113
TCJB475M025#0090	B	4.7	25	11.8	6	90	3	972	875	632	87	79	57
TCJB475M025#0150	B	4.7	25	11.8	6	150	3	753	677	489	113	102	73
TCJB685M025#0090	B	6.8	25	17.0	6	90	3	972	875	632	87	79	57
TCJB685M025#0150	B	6.8	25	17.0	6	150	3	753	677	489	113	102	73
TCJB106M025#0090	B	10	25	25.0	6	90	3	972	875	632	87	79	57
TCJB106M025#0150	B	10	25	25.0	6	150	3	753	677	489	113	102	73
TCJB156M025#0100	B	15	25	37.5	6	100	3	922	830	599	92	83	60
TCJB156M025#0150	B	15	25	37.5	6	150	3	753	677	489	113	102	73
TCJB226M025#0150	B	22	25	55.0	6	150	3	753	677	489	113	102	73
TCJC226M025#0100	C	22	25	55.0	6	100	3	1049	944	682	105	94	68
TCJD226M025#0060	D	22	25	55.0	6	60	3	1581	1423	1028	95	85	62
TCJD226M025#0100	D	22	25	55.0	6	100	3	1225	1102	796	122	110	80
TCJY226M025#0070	Y	22	25	55.0	6	70	3	1336	1203	869	94	84	61
TCJD336M025#0060	D	33	25	82.5	6	60	3	1581	1423	1028	95	85	62
TCJD336M025#0100	D	33	25	82.5	6	100	3	1225	1102	796	122	110	80
TCJY336M025#0060	Y	33	25	82.5	6	60	3	1443	1299	938	87	78	56

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

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

ESR allowed to move up to 1.25 times catalog limit post mounting.

For typical weight and composition see page 146.

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.

TCJ Series

Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (mΩ) @100kHz	MSL	100kHz RMS Current (mA)			100kHz RMS Voltage (mV)		
								25ºC	85ºC	105ºC	25ºC	85ºC	105ºC
TCJY336M025#0070	Y	33	25	82.5	6	70	3	1336	1203	869	94	84	61
TCJY336M025#0100	Y	33	25	82.5	6	100	3	1118	1006	727	112	101	73
TCJD476M025#0060	D	47	25	117.5	6	60	3	1581	1423	1028	95	85	62
TCJD476M025#0100	D	47	25	117.5	6	100	3	1225	1102	796	122	110	80
TCJE476M025#0050	E	47	25	117.5	6	50	3	1817	1635	1181	91	82	59
TCJE686M025#0050	E	68	25	170.0	6	50	3	1817	1635	1181	91	82	59
TCJE107M025#0080	E	100	25	250.0	6	80	3	1436	1293	933	115	103	75
35 Volt @ 85°C (28 Volt @ 105°C)													
TCJB155M035#0200	B	1.5	35	5.3	6	200	3	652	587	424	130	117	85
TCJB225M035#0200	B	2.2	35	7.7	6	200	3	652	587	424	130	117	85
TCJB335M035#0200	B	3.3	35	11.6	6	200	3	652	587	424	130	117	85
TCJB475M035#0200	B	4.7	35	16.5	6	200	3	652	587	424	130	117	85
TCJC475M035#0200	C	4.7	35	16.5	6	200	3	742	667	482	148	133	96
TCJC685M035#0200	C	6.8	35	23.8	6	200	3	742	667	482	148	133	96
TCJB106M035#0200	B	10	35	35.0	6	200	3	652	587	424	130	117	85
TCJC106M035#0200	C	10	35	35.0	6	200	3	742	667	482	148	133	96
TCJC156M035#0200	C	15	35	52.5	6	200	3	742	667	482	148	133	96
TCJY106M035#0070	Y	10	35	35.0	6	70	3	1336	1203	869	94	84	61
TCJD156M035#0070	D	15	35	52.5	6	70	3	1464	1317	952	102	92	67
TCJD156M035#0100	D	15	35	52.5	6	100	3	1225	1102	796	122	110	80
TCJD226M035#0070	D	22	35	77.0	6	70	3	1464	1317	952	102	92	67
TCJD226M035#0100	D	22	35	77.0	6	100	3	1225	1102	796	122	110	80
TCJD336M035#0070	D	33	35	115.5	6	70	3	1464	1317	952	102	92	67
TCJD336M035#0100	D	33	35	115.5	6	100	3	1225	1102	796	122	110	80
TCJE336M035#0055	E	33	35	115.5	6	55	3	1732	1559	1126	95	86	62
TCJE336M035#0070	E	33	35	115.5	6	70	3	1535	1382	998	107	97	70
TCJE476M035#0055	E	47	35	164.5	6	55	3	1732	1559	1126	95	86	62
50 Volt @ 85°C (40 Volt @ 105°C)													
TCJB684M050#0400	B	0.68	50	3.4	6	400	3	461	415	300	184	166	120
TCJB105M050#0300	B	1.0	50	5.0	6	300	3	532	479	346	160	144	104
TCJB155M050#0300	B	1.5	50	7.5	6	300	3	532	479	346	160	144	104
TCJC155M050#0300	C	1.5	50	7.5	6	300	3	606	545	394	182	163	118
TCJC225M050#0300	C	2.2	50	11	6	300	3	606	545	394	182	163	118
TCJC335M050#0200	C	3.3	50	16.5	8	200	3	742	667	482	148	133	96
TCJC475M050#0200	C	4.7	50	23.5	8	200	3	742	667	482	148	133	96
TCJC685M050#0200	C	6.8	50	34.0	8	200	3	742	667	482	148	133	96
TCJD685M050#0120	D	6.8	50	34.0	10	120	3	1118	1006	727	134	121	87
TCJD106M050#0120	D	10	50	50.0	10	120	3	1118	1006	727	134	121	87
TCJE106M050#0070	E	10	50	50.0	6	70	3	1535	1382	998	107	97	70
TCJE106M050#0100	E	10	50	50.0	6	100	3	1285	1156	835	128	116	83
TCJE156M050#0070	E	15	50	75.0	6	70	3	1535	1382	998	107	97	70
TCJE156M050#0100	E	15	50	75.0	6	100	3	1285	1156	835	128	116	83
63 Volt @ 85°C (50.4 Volt @ 105°C)													
TCJB474M063#0400	B	0.47	63	3.0	8	400	3	461	415	300	184	166	120
TCJB684M063#0300	B	0.68	63	4.3	8	300	3	532	479	346	160	144	104
TCJB105M063#0300	B	1.0	63	6.3	8	300	3	532	479	346	160	144	104
TCJC105M063#0300	C	1.0	63	6.3	6	300	3	606	545	394	182	163	118
TCJC155M063#0300	C	1.5	63	9.5	6	300	3	606	545	394	182	163	118
TCJC225M063#0200	C	2.2	63	13.9	6	200	3	742	667	482	148	133	96
TCJC335M063#0200	C	3.3	63	20.8	6	200	3	742	667	482	148	133	96
TCJC475M063#0200	C	4.7	63	29.6	6	200	3	742	667	482	148	133	96
TCJD475M063#0120	D	4.7	63	29.6	6	120	3	1118	1006	727	134	121	87
TCJD685M063#0120	D	6.8	63	42.8	6	120	3	1118	1006	727	134	121	87
TCJE685M063#0100	E	6.8	63	42.8	6	100	3	1285	1156	835	128	116	83
TCJE685M063#0150	E	6.8	63	42.8	6	150	3	1049	944	682	157	142	102
TCJE106M063#0100	E	10	63	63.0	6	100	3	1285	1156	835	128	116	83
TCJE106M063#0150	E	10	63	63.0	6	150	3	1049	944	682	157	142	102
75 Volt @ 85°C (60 Volt @ 105°C)													
TCJD475M075#0150	D	4.7	75	35.3	6	150	3	1000	900	650	150	135	98
TCJD685M075#0120	D	6.8	75	51.0	6	120	3	1118	1006	727	134	121	87
100 Volt @ 85°C (80 Volt @ 105°C)													
TCJV685M100#0250	V	6.8	100	68.0	8	250	3	1000	900	650	250	225	163
125 Volt @ 85°C (100 Volt @ 105°C)													
TCJD335M125#0250	D	3.3	125	41.2	8	250	3	775	697	503	194	174	126

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

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

ESR allowed to move up to 1.25 times catalog limit post mounting.

For typical weight and composition see page 146.

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.

Voltage vs Temperature Rating