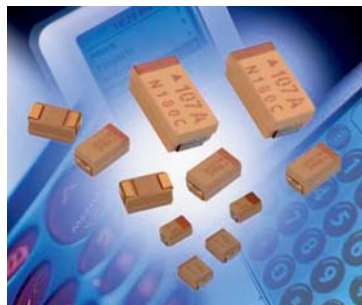


TLJ Series

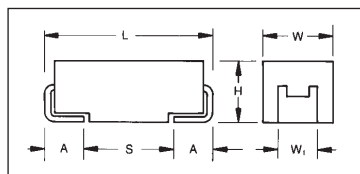


Tantalum Solid Electrolytic Chip Capacitors High CV Consumer Series



The consumer TLJ series of tantalum capacitors offers high capacitance vs. voltage ratio based on stable MnO_2 electrode capacitors. The TLJ series complies with RoHS requirements and it is an environmentally friendly component ready for lead-free assembly systems up to 3x reflow with 260°C peak temperature. The TLJ series is suitable for wide range of consumer electronic applications such as the latest portable handheld electronics, cellular phones, PDAs or other digital equipment and cameras.

- High Volumetric Efficiency
- Environmentally Friendly
- Small & Low Profile Cases
- 3x Reflow 260°C Compatible
- Consumer Applications



For part marking see page 164

CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	$L \pm 0.20$ (0.008)	$W \pm 0.20$ (0.008) -0.10 (0.004)	$H \pm 0.20$ (0.008) -0.10 (0.004)	$W_1 \pm 0.20$ (0.008)	$A \pm 0.30$ (0.012) -0.20 (0.008)	S Min.
A	3216-18	3.20 (0.126)	1.60 (0.063)	1.60 (0.063)	1.20 (0.047)	0.80 (0.031)	1.80 (0.071)
B	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)
G	3216	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	3528-12	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)
J	1608-09	1.60 (0.063)	0.80 (0.032)	0.90 (0.035)	0.60 (0.023)	0.30 (0.012)	0.55 (0.021)
K	3216	3.20 (0.126)	1.60 (0.063)	1.0 (0.039)	1.20 (0.047)	0.80 (0.031)	1.10 (0.043)
P	2012-15	2.05 (0.081)	1.35 (0.053)	1.50 (0.059) max	1.0 ± 0.1 (0.039 $\pm$ 0.004)	0.50 (0.020)	0.85 (0.033)
R	2012-12	2.05 (0.081)	1.30 (0.051)	1.20 (0.047) max	1.0 ± 0.1 (0.039 $\pm$ 0.004)	0.50 (0.020)	0.70 (0.028)
S	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	3528-12	3.50 (0.138)	2.80 (0.110)	1.20 (0.047) max	2.20 (0.087)	0.80 (0.031)	2.00 (0.079)
W	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)

W_1 dimension applies to the termination width for A dimensional area only.

HOW TO ORDER

TLJ

Type

W

Case Size
See table
above

157

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

M

Tolerance
 $M = \pm 20\%$

010

Rated DC Voltage
002=2.5Vdc
004=4Vdc
006=6.3Vdc
010=10Vdc
016=16Vdc

R

Packaging
 $R = 7''$ T/R
 $S = 13''$ T/R

0200

ESR in m Ω

TECHNICAL SPECIFICATIONS

Technical Data:

All technical data relate to an ambient temperature of +25°C

Capacitance Range:

10 μF to 220 μF

Capacitance Tolerance:

$\pm 20\%$

Rated Voltage (V_R)

-55°C $\leq$ +40°C:

2.5

4

6.3

10

16

Category Voltage (V_C)

at 85°C:

1.25

2

3.15

5

8

Category Voltage (V_C)

at 125°C:

0.5

0.8

1.26

2

3.2

Temperature Range:

-55°C to +125°C with category voltage

Reliability:

0.2% per 1000 hours at 85°C, $0.5 \times V_R$, with $0.1 \Omega/V$ series impedance with 60% confidence level

TLJ Series



Tantalum Solid Electrolytic Chip Capacitors High CV Consumer Series

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

Capacitance		Rated Voltage DC to 40°C / 0.5DC to 85°C / 0.2DC to 125°C					
μF	Code	2.5V (e)	4V (G)	6.3V (J)	10V (A)	16V (C)	35V (V)
1							
1.5							
2.2							P
3.3							
4.7				J(8500)	J(10000)		
6.8	685			J(10000)		R	
10	106			J(8000)	R(3000)	P	
15	156				R(2000)	P/S	
22	226		J	R(3500)	P	A/T(1000)	
33	336		R(3000)	K(1700)/(3000) R(3000)	P(3500)/R(3500) S(1500)	S/T	
47	476	R	K(1500)/P(3000) R(3000)	K(1500)/P(2500) S(1500)	A(600)/G(1500) P(3200)/S(1500) T(600)	B	
68	686	P	K(1200)/P(3000) S(1500)	A(500)/G(800) T(600)	A/T	B/W	
100	107	S	A(500)/G(800) S(1400)	A(500,800)/T(800)	H(900)/T	W	
150	157	A	A(800)/T(800)	H(900)/T(1200)	B(500)/W(200)		
220	227	A/T(1100)	H(900)/T(1100)	B(500)/W(200)			
330	337		B*/W(200)	B			
470	477	B*/W*	B*				

Red - Developmental Ratings - subject to change

Violet - Please Contact Manufacturer

Available Ratings, (ESR ratings in mOhms in brackets)

TLJ Series



Tantalum Solid Electrolytic Chip Capacitors High CV Consumer Series

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Capacitance (μF)	Rated Voltage (V)	Maximum Surge Current (A)*	DCL (μA) Max.	ESR Max. (mΩ) @100kHz	100kHz Ripple Current (mA)			100kHz Ripple Voltage (mV)		
							25°C	85°C	125°C	25°C	85°C	125°C
2.5 Volt @ 40°C (1.25V @ 85°C, 0.5V @ 125°C)												
TLJT227M002#1200	T	220	2.5	0.8	5.5	1100	365	329	146	219	197	88
4 Volt @ 40°C (2 Volt @ 85°C, 0.8 Volt @ 125°C)												
TLJR336M004#3000	R	33	4	0.6	1.3	3000	135	122	54	406	366	162
TLJK476M004#1500	K	47	4	1.0	1.9	1500	208	187	83	312	281	125
TLJP476M004#3000	P	47	4	0.6	1.9	3000	141	127	57	424	382	170
TLJR476M004#3000	R	47	4	0.6	1.9	3000	135	122	54	406	366	162
TLJK686M004#1200	K	68	4	1.2	2.7	1200	233	209	93	279	251	112
TLJP686M004#3000	P	68	4	1.2	2.7	3000	141	127	57	424	382	170
TLJS686M004#1500	S	68	4	1.0	2.7	1500	208	187	83	312	281	125
TLJA107M004#0500	A	100	4	2.1	4.0	500	387	349	155	194	174	77
TLJG107M004#0800	G	100	4	1.6	4.0	800	296	266	118	237	213	95
TLJS107M004#1400	S	100	4	1.1	4.0	1400	208	187	83	312	281	125
TLJA157M004#0800	A	150	4	1.6	6.0	800	306	276	122	245	220	98
TLJT157M004#0800	T	150	4	1.6	6.0	800	316	285	126	253	228	101
TLJH227M004#0900	H	220	4	1.5	8.8	900	298	268	119	268	241	107
TLJT227M004#1100	T	220	4	1.3	8.8	1100	316	285	126	253	228	101
TLJW337M004#0200	W	330	4	3.1	13.2	200	671	604	268	134	121	54
6.3 Volt @ 40C (3.15V @ 85C, 1.26V @ 125C)												
TLJJ475M006#KJ	J	4.7	6.3	0.4	0.5	8500	34	31	14	292	262	117
TLJJ685M006#KJ	J	6.8	6.3	0.3	0.5	10000	32	28	13	316	285	126
TLJJ106M006#KJ	J	10	6.3	0.4	0.6	8000	35	32	14	283	255	113
TLJR226M006#3500	R	22	6.3	0.8	1.3	3500	125	113	50	439	395	175
TLJK336M006#1700	K	33	6.3	1.5	2.0	1700	196	176	78	332	299	133
TLJP336M006#3000	P	33	6.3	0.9	2.0	3000	141	127	57	424	382	170
TLJR336M006#3000	R	33	6.3	0.9	2.0	3000	135	122	54	406	366	162
TLJK476M006#1500	K	47	6.3	1.6	2.8	1500	208	187	83	312	281	125
TLJP476M006#2500	P	47	6.3	1.1	2.8	2500	155	139	62	387	349	155
TLJS476M006#1500	S	47	6.3	1.6	2.8	1500	208	187	83	312	281	125
TLJA686M006#0500	A	68	6.3	3.3	4.1	500	387	349	155	194	174	77
TLJG686M006#0800	G	68	6.3	1.9	4.1	800	242	217	97	290	261	116
TLJT686M006#0600	T	68	6.3	3.0	4.1	600	365	329	146	219	197	88
TLJA107M006#0500	A	100	6.3	3.3	6.0	500	387	349	155	194	174	77
TLJA107M006#0800	A	100	6.3	2.5	6.0	800	306	276	122	245	220	98
TLJT107M006#0800	T	100	6.3	2.5	6.0	800	316	285	126	253	228	101
TLJH157M006#0900	H	150	6.3	2.3	9.0	900	298	268	119	268	241	107
TLJT157M006#1200	T	150	6.3	1.9	9.0	1200	316	285	126	253	228	101
TLJB227M006#0500	B	220	6.3	3.3	13.2	500	412	371	165	206	186	82
TLJW227M006#0200	W	220	6.3	4.8	13.2	200	671	604	268	134	121	54
10 Volt @ 40C (5V @ 85C, 2V @ 125C)												
TLJJ475M010#KJ	J	4.7	10	0.5	0.5	10000	32	28	13	316	285	126
TLJR106M010#3000	R	10	10	1.4	1.0	3000	135	122	54	406	366	162
TLJR156M010#2000	R	15	10	2.0	1.5	2000	166	149	66	332	298	133
TLJR336M010#3500	R	33	10	1.3	3.3	3500	125	113	50	439	395	175
TLJP336M010#3500	P	33	10	1.3	3.3	3500	141	127	57	424	382	170
TLJS336M010#1500	S	33	10	2.6	3.3	1500	208	187	83	312	281	125
TLJP476M010#3200	P	47	10	1.4	4.7	3200	137	123	55	438	394	175
TLJA476M010#0600	A	47	10	4.8	4.7	600	354	318	141	212	191	85
TLJG476M010#1500	G	47	10	2.6	4.7	1500	216	194	86	324	292	130
TLJS476M010#1500	S	47	10	2.6	4.7	1500	208	187	83	312	281	125
TLJT476M010#0600	T	47	10	4.8	4.7	600	365	329	146	219	197	88
TLJH107M010#0900	H	100	10	3.7	10.0	900	298	268	119	268	241	107
TLJB157M010#0500	B	150	10	5.3	15.0	500	412	371	165	206	186	82
TLJW157M010#0200	W	150	10	7.7	15.0	200	671	604	268	134	121	54
16 Volt @ 40C (8V @ 85C, 3.2V @ 125C)												
TLJT226M016#1000	T	22	16	5.5	3.5	1000	283	255	113	283	255	113

insert R for 7" reel or S for 13" reel

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5 RMS with DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes. TLJ series is MSL level 3 device.

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

DCL allowed to move up to 2.00 times catalog limit post mounting.

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

