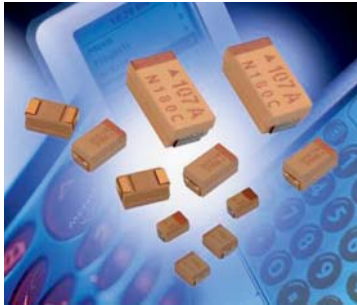


# TLJ Series



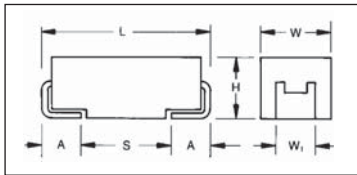
## Tantalum Solid Electrolytic Chip Capacitors High CV Consumer Series



- High Volumetric Efficiency
- 3x reflow 260°C compatible
- 13 case sizes available including low profile codes
- Environmentally friendly
- Consumer applications (e.g. mobiles phones, PDA etc.)
- CV range: 10-680µF / 2.5-20V



LEAD-FREE  
LEAD-FREE COMPATIBLE  
COMPONENT



For part marking see page 169

### 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 <sub>1</sub> ±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)
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)
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 (0.053)	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 (0.033)
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

**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 = ±20%

**010**  
Rated DC Voltage  
002 = 2.5Vdc  
004 = 4Vdc  
006 = 6.3Vdc  
010 = 10Vdc  
016 = 16Vdc  
020 = 20Vdc

**R**  
Packaging  
R = Pure Tin 7" Reel  
S = Pure Tin 13" Reel

**0200**  
ESR in mΩ

### TECHNICAL SPECIFICATIONS

Technical Data:

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

Capacitance Range: 10 µF to 680 µF

Capacitance Tolerance: ±20%

Rated Voltage (V <sub>R</sub> )	-55°C ≤ +40°C:	2.5	4	6.3	10	16	20	
Category Voltage (V <sub>C</sub> )	at 85°C:	1.3	2	3.2	5	8	10	
Category Voltage (V <sub>C</sub> )	at 125°C:	0.5	0.8	1.3	2	3.2	4	

Temperature Range: -55°C to +125°C with category voltage

Reliability: 0.2% per 1000 hours at 85°C, 0.5xV<sub>R</sub> with 0.1Ω/V series impedance with 60% confidence level



# TLJ Series



## Tantalum Solid Electrolytic Chip Capacitors High CV Consumer Series

### CAPACITANCE AND RATED VOLTAGE 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)	20V (D)	35V (V)
6.8	685							
10	106				N(2500) R(2000,3000)	S(2200)	T(1000)	
15	156				R(2000)			
22	226			N(5400)/R(3500)	K(1800)/N(3800) R(3800)	T(1000)		
33	336		N(8000)/R(3000)	K(1700)/N(8000) P(3000)/R(3000)	K(1500)/N(9600) P(3500) R(3500)/S(1500)	T(1000)		
47	476		K(1500)/N(4000) P(3000)/R(3000)	K(1500)/N(8300) P(700,900,1800,2500) R(3200)/S(1500)	A(600)/G(1500) P(3200)/R(3200) S(1500)/T(600)			
68	686		K(1200)/N(8000) P(3000) R(2900)/S(1500)	A(500)/G(800) K(2000) S(1500)/T(600)	A(1500)			
100	107		A(500)/G(800) K(2000)/N(5200) P(2700)/S(1400)	A(500,800)/G(800) K(2000) P(5400)/T(800)	A(1400) H(900)/T(900)			
150	157		A(800)/T(800)	A(900)/G(2500) H(900)/T(1200)	B(500) W(150,200)			
220	227	T(1100)	A(1100)/G(3000) H(900)/T(1100)	B(500)/T(2000) W(200)	F(300)			
330	337		T(2700)/W(200)	F(300)				
470	477							
680	687			Y(100,150)				
1000	108							
1500	158							

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.



# 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	MSL	100kHz Ripple Current (mA)			100kHz Ripple Voltage (mV)		
								25°C	85°C	125°C	25°C	85°C	125°C
<b>10 Volt @ 40°C (5 Volt @ 85°C, 2 Volt @ 125°C)</b>													
TLJN106M010#2500	N	10	10	1.7	1.0	2500	3	141	127	57	354	318	141
TLJR106M010#2000	R	10	10	2.0	1.0	2000	3	166	149	66	332	298	133
TLJR106M010#3000	R	10	10	1.4	1.0	3000	3	135	122	54	406	366	162
TLJR156M010#2000	R	15	10	2.0	1.5	2000	3	166	149	66	332	298	133
TLJK226M010#1800	K	22	10	2.2	2.2	1800	3	190	171	76	342	308	137
TLJN226M010#3800	N	22	10	1.2	2.2	3800	3	115	103	46	436	392	174
TLJR226M010#3800	R	22	10	1.2	2.2	3800	3	120	108	48	457	411	183
TLJK336M010#1500	K	33	10	2.6	3.3	1500	3	208	187	83	312	281	125
TLJN336M010#9600	N	33	10	0.5	6.6	9600	3	72	65	29	693	624	277
TLJP336M010#3500	P	33	10	1.3	3.3	3500	3	141	127	57	424	382	170
TLJR336M010#3500	R	33	10	1.3	3.3	3500	3	125	113	50	439	395	175
TLJS336M010#1500	S	33	10	2.6	3.3	1500	3	208	187	83	312	281	125
TLJA476M010#0600	A	47	10	4.8	4.7	600	3	354	318	141	212	191	85
TLJG476M010#1500	G	47	10	2.6	4.7	1500	3	216	194	86	324	292	130
TLJP476M010#3200	P	47	10	1.4	4.7	3200	3	137	123	55	438	394	175
TLJR476M010#3200	R	47	10	1.4	9.4	3200	3	131	118	52	420	378	168
TLJS476M010#1500	S	47	10	2.6	4.7	1500	3	208	187	83	312	281	125
TLJT476M010#0600	T	47	10	4.8	4.7	600	3	365	329	146	219	197	88
TLJA686M010#1500	A	68	10	2.6	6.8	1500	3	224	201	89	335	302	134
TLJA107M010#1400	A	100	10	2.7	10.0	1400	3	231	208	93	324	292	130
TLJH107M010#0900	H	100	10	3.7	10.0	900	3	298	268	119	268	241	107
TLJT107M010#0900	T	100	10	3.7	10.0	900	3	298	268	119	268	241	107
TLJB157M010#0500	B	150	10	5.3	15.0	500	3	412	371	165	206	186	82
TLJW157M010#0150	W	150	10	8.3	15.0	150	3	775	697	310	116	105	46
TLJW157M010#0200	W	150	10	7.7	15.0	200	3	671	604	268	134	121	54
TLJF227M010#0300	F	220	10	6.7	22.0	300	3	577	520	231	173	156	69
<b>16 Volt @ 40°C (8 Volt @ 85°C, 3.2 Volt @ 125°C)</b>													
TLJS106M016#2200	S	10	16	3.0	1.6	2200	3	172	155	69	378	340	151
TLJT226M016#1000	T	22	16	5.5	3.5	1000	3	283	255	113	283	255	113
TLJT336M016#1000	T	33	16	5.5	5.3	1000	3	283	255	113	283	255	113
<b>20 Volt @ 40°C (10 Volt @ 85°C, 4 Volt @ 125°C)</b>													
TLJT106M020#1000	T	10	20	6.9	2.0	1000	3	283	255	113	283	255	113

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 is measured at rated voltage after 5 minutes.

ESR allowed to move up to 1.25 times catalogue limit post mounting  
DCL allowed to move up to 2.00 times catalogue limit post mounting

For typical weight and composition see page 162.

**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.**

