

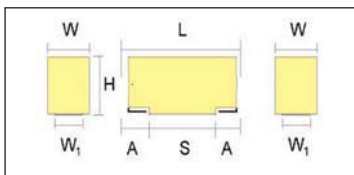
TLN Series



Tantalum Solid Electrolytic Chip Capacitors Undertab Series



- Undertab terminations layout:
 - High Volumetric Efficiency
 - High PCB assembly density
 - High capacitance in smaller dimensions
- 3x reflow 260°C compatible
- Consumer applications (e.g. PCMCIA/USB wireless express cards, mobiles, MP3 etc.)
- 7 case sizes available
- CV range: 47-1000µF / 4-10V



For part marking see page 130

CASE DIMENSIONS: millimeters (inches)

Code	EIA Code	EIA Metric	L±0.20 (0.008)	W+0.20 (0.008) -0.10 (0.004)	H max.	W ₁ ±0.20 (0.008)	A+0.30 (0.012) -0.20 (0.008)
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)
K	1206	3216-10	3.20 (0.126)	1.60 (0.063)	1.00 (0.039)	1.20 (0.047)	0.80 (0.031)
L	1210	3528-10	3.50 (0.138)	2.80(0.110)	1.00 (0.039) max	2.20(0.087)	0.80(0.031)
R	0805	2012-12	2.05 (0.081)	1.30 (0.051)	1.20 (0.047)	1.0±0.1 (0.039±0.004)	0.50 (0.020)
S	1206	3216-12	3.50 (0.138)	1.60 (0.063)	1.20 (0.047)	1.20 (0.047)	0.80 (0.031)
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)
Y	2917	7343-20	7.30 (0.287)	4.30 (0.169)	2.00 (0.079)	2.40 (0.094)	1.30 (0.051)

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

HOW TO ORDER

TLN
Type

S
Case Size
See table above

227
Capacitance Code
pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)

M
Tolerance
M = ±20%

004
Rated DC Voltage
004 = 4Vdc
006 = 6.3Vdc
010 = 10Vdc

R
Packaging
R = 7" T/R
S = 13" T/R

3000
ESR in mΩ

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C				
Capacitance Range:	33 µF to 1000 µF				
Capacitance Tolerance:	±20%				
Rated Voltage (V _R)	-55°C ≤ +40°C:	4	6.3	10	
Category Voltage (V _C)	at 85°C:	2	3.15	5	
Category Voltage (V _C)	at 125°C:	0.8	1.26	2	
Temperature Range:	-55°C to +125°C with category voltage				
Reliability:	0.2% per 1000 hours at 85°C, 0.5xV _R with 0.1Ω/V series impedance with 60% confidence level				

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CAPACITANCE AND RATED VOLTAGE, VR (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)	20V (D)	35V (V)
33	336				N(9600)*			
47	476			N(8300)*	K(1500)/N(9600)* R(4000)			
68	686		N(3000)*	N(8300)*	K(7200)*S(6000)			
100	107		N(5200)*	K(5400)/R(2000) S(5400)	K(9600)/L(7200)* S(7200)			
150	157		K(4000)*R(4000)*	K(8300)/L(5400)* S(5400)	G(6000)/L(9600) S(7200)*T(6000)*			
220	227		K(3000)/L(3000)* S(3000)	G(3000)/L(8300) S(8300)*T(3000)*	G(7200)*H(6000)* T(7200)			
330	337		G(4000)*L(4000)* S(5200)*T(3000)*	G(5400)*H(3000)* T(5400)	H(7200)*T(9600)*			
470	477		G(5200)*H(3000)* T(4000)*	H(5400)*T(8300)*	H(9600)*			
680	687		H(4000)*T(5200)*	H(8300)*				
1000	108		H(5200)*	Y(150)				

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.

RATINGS & PART NUMBER REFERENCE

AVX Part No.	Case Size	Cap (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	105°C	25°C	85°C	105°C
4 Volt @ 40°C (2 Volt @ 85°C, 0.8 Volt @ 125°C)												
TLNK227M004#3000	K	220	4	0.6	17.6	3000	135	122	54	406	366	162
TLNS227M004#3000	S	220	4	0.6	17.6	3000	135	122	54	406	366	162
6.3 Volt @ 40°C (3.15 Volt @ 85°C, 1.26 Volt @ 125°C)												
TLNK107M006#5400	K	100	6.3	0.5	6	5400	101	91	40	545	490	218
TLNR107M006#2000	R	100	6.3	0.5	12	2000	150	135	60	300	270	120
TLNS107M006#5400	S	100	6.3	0.5	6	5400	101	91	40	545	490	218
TLNK157M006#8300	K	150	6.3	0.4	18	8300	81	73	33	676	608	270
TLNS157M006#5400	S	150	6.3	0.5	9	5400	101	91	40	545	490	218
TLNG227M006#3000	G	220	6.3	0.9	13.2	3000	141	127	57	424	382	170
TLNL227M006#8300	L	220	6.3	0.4	26.4	8300	85	77	34	706	635	282
TLNT337M006#5400	T	330	6.3	0.5	19.8	5400	114	102	46	615	553	246
TLNY108M006#0150	Y	1000	6.3	5.3	63	150	876	788	350	131	118	53
10 Volt @ 40°C (5 Volt @ 85°C, 2 Volt @ 125°C)												
TLNK476M010#1500	K	47	10	0.6	4.7	1500	191	172	77	287	259	115
TLNR476M010#4000	R	47	10	1.1	4.7	4000	106	95	42	424	382	170
TLNS686M010#6000	S	68	10	0.8	6.8	6000	96	86	38	574	517	230
TLNK107M010#9600	K	100	10	0.5	20	9600	76	68	30	727	654	291
TLNS107M010#7200	S	100	10	0.7	10	7200	87	79	35	629	566	252
TLNG157M010#6000	G	150	10	0.8	15	6000	100	90	40	600	540	240
TLNL157M010#9600	L	150	10	0.5	30	9600	79	71	32	759	683	304
TLNT227M010#7200	T	220	10	0.7	22	7200	99	89	39	710	639	284

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 1.5V. DCL is measured at rated voltage after 5 minutes.

TLN series is MSL level 3 according to J-STD-020C.

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.

