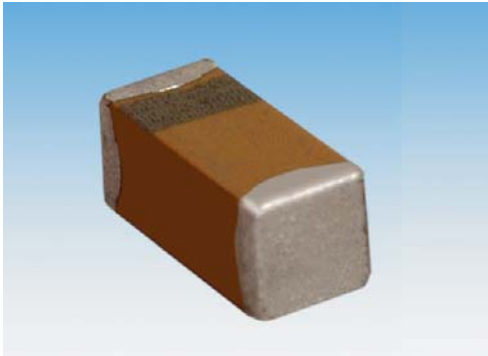


Standard Microchip



The world's smallest surface mount Tantalum capacitor, small enough to create space providing room for ideas to grow.

TACmicrochip® is a major breakthrough in miniaturization without reduction in performance.

It offers you the highest energy store in a small case size down to 0402; enhanced high frequency operation through unique ESR performance with temperature and voltage stability is also offered.

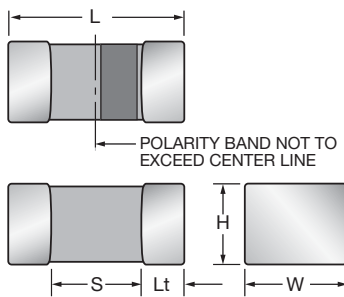


LEAD-FREE



RoHS COMPLIANT

CASE DIMENSIONS: millimeters (inches)



Code	EIA Code	EIA Metric	Length (L)	Width (W)	Height (H)	Termination Spacing(S)	Minimum Termination Length (Lt)	Average Mass
A	1206	3216-18	3.20±0.20 (0.126±0.008)	1.60±0.20 (0.063±0.008)	1.60±0.20 (0.063±0.008)	1.80 min. (0.071 min.)	0.15 (0.006)	44.6mg
K	0402	1005-07	1.00 ^{+0.20} _{-0.00} ^{+0.008} _{-0.000} (0.039 -0.000)	0.50 ^{+0.20} _{-0.00} ^{+0.008} _{-0.000} (0.020 -0.000)	0.50 ^{+0.20} _{-0.00} ^{+0.008} _{-0.000} (0.020 -0.000)	0.40 min. (0.016 min.)	0.10 (0.004)	2.0mg
L	0603	1608-10	1.60 ^{+0.20} _{-0.00} ^{+0.008} _{-0.000} (0.063 -0.000)	0.85 ^{+0.15} _{-0.00} ^{+0.006} _{-0.000} (0.033 -0.000)	0.85 ^{+0.15} _{-0.00} ^{+0.006} _{-0.000} (0.033 -0.000)	0.55 min. (0.022 min.)	0.15 (0.006)	8.6mg
R	0805	2012-15	2.00 ^{+0.20} _{-0.00} ^{+0.008} _{-0.000} (0.079 -0.000)	1.35 ^{+0.15} _{-0.00} ^{+0.006} _{-0.000} (0.053 -0.000)	1.35 ^{+0.15} _{-0.00} ^{+0.006} _{-0.000} (0.053 -0.000)	0.70 min. (0.027 min.)	0.15 (0.006)	29.9mg

HOW TO ORDER

TAC	L	226	M	004	R	TA
Type	Case Size	Capacitance Code	Tolerance	Rated DC Voltage	Packaging (see table below)	Alternative characters may be used for special requirements
TACmicrochip®	0402=K 0603=L 0805=R 1206=A	pF code: 1st two digits represent significant figures, 3rd digit represents multiplier (number of zeros to follow)	K=±10% M=±20%	002=2Vdc 003=3Vdc 004=4Vdc 005=5Vdc 006=6.3Vdc 010=10Vdc 016=16Vdc 020=20Vdc 025=25Vdc 035=35Vdc		

Packaging Suffix

Reel Size	Standard Tin Termination Plastic Tape	Standard Tin Termination Paper Tape	Gold Termination Plastic Tape
Case	A/R/L	K	A/R/L
7"	RTA	PTA	ATA
4 1/4"	XTA	QTA	FTA

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C											
Capacitance Range:	0.47 µF to 150 µF											
Capacitance Tolerance:	±10%; ±20%											
Leakage Current DCL:	0.01CV or 0.5µA whichever is the greater											
Rated Voltage (V _R)	≅ +85°C:	2	3	4	5	6.3	10	16	20	25	35	
Category Voltage (V _C)	≅ +125°C:	1.3	2	2.7	3.3	4	7	10	13	17	23	
Surge Voltage (V _S)	≅ +85°C:	2.7	3.9	5.2	6.5	8	13	20	26	32	46	
Surge Voltage (V _S)	≅ +125°C:	1.7	2.6	3.2	4	5	8	12	16	20	28	
Temperature Range:	-55°C to +125°C											
Reliability:	1% per 1000 hours at 85°C, V _R with 0.1Ω/V series impedance, 60% confidence level											
Termination Finish:	Nickel and Tin Plating (standard), Nickel and Gold Plating option available upon request											

STANDARD COMMERCIAL RANGE (EIA Sizes) (LETTER DENOTES CASE SIZE)

Capacitance		Voltage Rating DC (V _R) at 85°C								
µF	Code	2.0V	3.0V	4.0V	5.0V	6.3V	10V	16V	20V	25V
0.33	334									
0.47	474						K/L	L		
0.68	684						K/L	L		
1.0	105					K/L	K/L	L		R
1.5	155			L		L	L	L		
2.2	225		K/L	L		K/L	L	L		
3.3	335	K/L	K/L	L		L	L/R		R	
4.7	475	K/L	K/L	L		L	L/R		R	
6.8	685	K/L	L	L		L/R	L/R			
10	106	K/L	L	J/L/R		L/R	L/R	R		
15	156		R	L/R		L/R	R			
22	226	R	L/R	L/R	L	R	R			
33	336	R	R	R		R	R/A			
47	476	R	R	R		R/A				
68	686	R	R	A						
100	107		R/A	A		A				
150	157	A								
220	227									

Developmental Ratings - subject to change

Standard Height Profile: K, L, R, A Case

Low Profile: J, U, H, T, V Case

RATINGS & PART NUMBER REFERENCE

AVX Part No.	EIA	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACK335M002#	0402	K	3.3	2	0.5	8	15
TACL335*002#	0603	L	3.3	2	0.5	6	7.5
TACK475M002#	0402	K	4.7	2	0.5	12	15
TACL475*002#	0603	L	4.7	2	0.5	6	7.5
TACK685M002#	0402	K	6.8	2	0.5	20	15
TACL685*002#	0603	L	6.8	2	0.5	6	7.5
TACK106M002#	0402	K	10	2	0.5	15	15
TACL106*002#	0603	L	10	2	0.5	10	7.5
TACR226*002#	0805	R	22	2	0.5	8	5
TACR336*002#	0805	R	33	2	0.7	10	5
TACR476*002#	0805	R	47	2	0.9	10	5
TACR686M002#	0805	R	68	2	1.4	14	5
TACA157M002#	1206	A	150	2	3.0	20	1
TACK225M003#	0402	K	2.2	3	0.5	6	15
TACL225*003#	0603	L	2.2	3	0.5	6	7.5
TACK335M003#	0402	K	3.3	3	0.5	8	15
TACL335*003#	0603	L	3.3	3	0.5	6	7.5
TACK475M003#	0402	K	4.7	3	0.5	12	15
TACL475*003#	0603	L	4.7	3	0.5	6	7.5
TACL685*003#	0603	L	6.8	3	0.5	6	7.5
TACL106*003#	0603	L	10	3	0.5	10	7.5
TACR156*003#	0805	R	15	3	0.5	8	5
TACL226M003#	0603	L	22	3	0.7	20	7.5
TACR226*003#	0805	R	22	3	0.7	8	5
TACR336*003#	0805	R	33	3	1.0	10	5
TACR476*003#	0805	R	47	3	1.5	10	5
TACR686M003#	0805	R	68	3	2.0	14	5
TACA107M003#	1206	A	100	3	3.0	15	1
TACL155*004#	0603	L	1.5	4	0.5	6	7.5
TACL225*004#	0603	L	2.2	4	0.5	6	7.5
TACL335*004#	0603	L	3.3	4	0.5	6	7.5
TACL475*004#	0603	L	4.7	4	0.5	6	7.5
TACL685*004#	0603	L	6.8	4	0.5	8	7.5
TACJ106M004#	0603	J	10	4	0.5	20	7.5
TACL106M004#	0603	L	10	4	0.5	10	7.5
TACR106*004#	0805	R	10	4	0.5	8	5
TACL156M004#	0603	L	15	4	0.6	20	7.5
TACR156*004#	0805	R	15	4	0.6	8	5
TACL226M004#	0603	L	22	4	0.9	20	7.5
TACR226*004#	0805	R	22	4	0.9	8	5
TACR336*004#	0805	R	33	4	1.3	10	5
TACR476M004#	0805	R	47	4	1.9	14	5
TACA686M004#	1206	A	68	4	2.7	15	1
TACA107M004#	1206	A	100	4	4.0	20	1
TACK105M006#	0402	K	1.0	6.3	0.5	6	15

AVX Part No.	EIA	Case Size	Capacitance (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACL105*006#	0603	L	1.0	6.3	0.5	6	7.5
TACL155*006#	0603	L	1.5	6.3	0.5	6	7.5
TACK225M006#	0402	K	2.2	6.3	0.5	8	15
TACL225*006#	0603	L	2.2	6.3	0.5	6	7.5
TACL335*006#	0603	L	3.3	6.3	0.5	6	7.5
TACL475*006#	0603	L	4.7	6.3	0.5	8	7.5
TACL685*006#	0603	L	6.8	6.3	0.5	10	7.5
TACR685*006#	0805	R	6.8	6.3	0.5	8	5
TACL106M006#	0603	L	10	6.3	0.6	10	6
TACR106*006#	0805	R	10	6.3	0.6	8	5
TACL156M006#	0603	L	15	6.3	0.9	20	7.5
TACR156*006#	0805	R	15	6.3	0.9	8	5
TACR226*006#	0805	R	22	6.3	1.4	10	5
TACR336*006#	0805	R	33	6.3	2.1	12	5
TACR476M006#	0805	R	47	6.3	3	20	5
TACA476M006#	1206	A	47	6.3	3.0	15	1
TACA107M006#	1206	A	100	6.3	6.3	20	1
TACK474M010#	0402	K	0.47	10	0.5	6	15
TACL474*010#	0603	L	0.47	10	0.5	6	7.5
TACK684M010#	0402	K	0.68	10	0.5	8	15
TACL684*010#	0603	L	0.68	10	0.5	6	7.5
TACK105M010#	0402	K	1.0	10	0.5	6	15
TACL105*010#	0603	L	1.0	10	0.5	6	7.5
TACL155*010#	0603	L	1.5	10	0.5	6	7.5
TACL225*010#	0603	L	2.2	10	0.5	6	7.5
TACL335*010#	0603	L	3.3	10	0.5	8	7.5
TACR335*010#	0805	R	3.3	10	0.5	8	5
TACL475M010#	0603	L	4.7	10	0.5	10	6
TACR475*010#	0805	R	4.7	10	0.5	8	6
TACL685*010#	0603	L	6.8	10	0.7	20	7.5
TACR685*010#	0805	R	6.8	10	0.7	8	5
TACL106M010#	0603	L	10	10	1.0	20	7.5
TACR106*010#	0805	R	10	10	1.0	8	5
TACR156*010#	0805	R	15	10	1.5	10	5
TACR226M010#	0805	R	22	10	2.2	14	5
TACA336M010#	1206	A	33	10	3.3	12	1
TACR336*010#	0805	R	33	10	3.3	20	5
TACL474*016#	0603	L	0.47	16	0.5	6	7.5
TACL684*016#	0603	L	0.68	16	0.5	6	7.5
TACL105*016#	0603	L	1.0	16	0.5	6	7.5
TACL225M016#	0603	L	2.2	16	0.5	10	7.5
TACR106*016#	0805	R	10	16	1.6	10	5
TACR475M020#	0805	R	4.7	20	0.9	8	5
TACR475M020#	0805	R	4.7	20	0.9	8	5
TACR105*025#	0805	R	1.0	25	0.5	8	5

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.

* Insert K for ±10% and M for ±20% Capacitance Tolerance

Refer to packaging suffix for options

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.