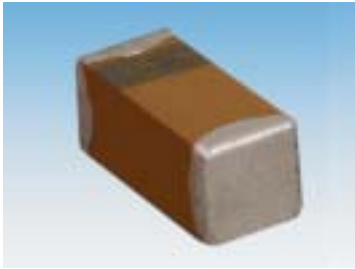


Standard Microchip

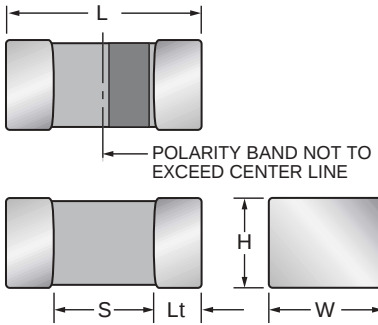


The world's smallest surface mount Tantalum capacitor, small enough to create space providing room for ideas to grow.

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.

CASE DIMENSIONS: millimeters (inches)



Code	EIA Code	EIA Metric	Length (L)	Width (W)	Height (H)	Termination Spacing(S)	Minimum Termination Length (Lt)	Average Mass
K	0402	1005-05	1.00 ^{+0.20} _{-0.00} (0.039 ^{+0.008} _{-0.000})	0.50 ^{+0.20} _{-0.00} (0.020 ^{+0.008} _{-0.000})	0.50 ^{+0.20} _{-0.00} (0.020 ^{+0.008} _{-0.000})	0.40 min.	0.10 (0.004)	2.0mg
L	0603	1608-08	1.60 ^{+0.25} _{-0.15} (0.063 ^{+0.010} _{-0.006})	0.85 ^{+0.20} _{-0.10} (0.033 ^{+0.008} _{-0.004})	0.85 ^{+0.20} _{-0.10} (0.033 ^{+0.008} _{-0.004})	0.65 min.	0.15 (0.006)	8.6mg
R	0805	2012-12	2.00 ^{+0.25} _{-0.15} (0.079 ^{+0.010} _{-0.006})	1.35 ^{+0.20} _{-0.10} (0.053 ^{+0.008} _{-0.004})	1.35 ^{+0.20} _{-0.10} (0.053 ^{+0.008} _{-0.004})	0.85 min.	0.15 (0.006)	29.9mg
A	1206	3216-16	3.20 ^{±0.20} (0.126 ^{±0.008})	1.60 ^{±0.20} (0.063 ^{±0.008})	1.60 ^{±0.20} (0.063 ^{±0.008})	2.00 min.	0.15 (0.006)	44.6mg

HOW TO ORDER

TAC	L	226	M	004	R	**
Type	Case Code	Capacitance Code	Tolerance	Rated DC Voltage	Packaging	Additional characters may be add 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 006=6.3Vdc 010=10Vdc 016=16Vdc 020=20Vdc 025=25Vdc 035=35Vdc	(see table below)	

Packaging Suffix

RTA – Std. termination (Nickel & Tin) supplied on plastic embossed tape on a 4mm pitch in a 7" diameter reel.

XTA – Std. termination (Nickel & Tin) supplied on plastic embossed tape on a 4mm pitch in a 4.25" diameter reel.

PTA – Std. termination (Nickel & Tin) supplied on punched paper tape on a 2mm pitch in a 7" diameter reel.

QTA – Std. termination (Nickel & Tin) supplied on punched paper tape on a 2mm pitch in a 4.25" diameter reel.

ATA – Nickel & thin Gold plated termination, supplied on plastic embossed tape on a 4mm pitch in a 7" diameter reel.

FTA – Nickel & thin Gold plated termination, supplied on plastic embossed tape on a 4mm pitch in a 4.25" diameter reel.

Packaging Suffix

Reel Size	Standard Tin Termination Plastic Tape 1206/0805/0603	Standard Tin Termination Paper Tape 0402	Gold Termination Plastic Tape 1206/0805/0603
7"	Rxx	Pxx	Axx
4 1/4"	Xxx	Qxx	Fxx

TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C									
Capacitance Range:	0.47µF to 150µF									
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	6.3	10	16	20	25	35
Category Voltage (V _C)	≧ +125°C:	1.3	2	2.7	4	7	10	13	17	23
Surge Voltage (V _S)	≧ +85°C:	2.7	3.9	5.2	8	13	20	26	32	46
Surge Voltage (V _S)	≧ +125°C:	1.7	2.6	3.2	5	8	12	16	20	28
Temperature Range:	-55°C to +125°C									
Reliability:	1% per 1000 hours at 85°C, Vr 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 Microchip

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

Capacitance		Voltage Rating DC (VR) at 85°C								
Cap. (µF)	Code	2.0V	3.0V	4.0V	6.3V	10V	16V	20V	25V	35V
0.33 0.47 0.68	334 474 684					K/L K/L	L L			
1.0 1.5 2.2	105 155 225		K/L	L L	K/L L K/L	K/L L L	L L		R	R
3.3 4.7 6.8	335 475 685	K/L K/L L	K/L K/L L	L K/L L	L L L/R	L/R L/R R		R		
10 15 22	106 156 226	K/L R R	K/L R L/R	L/R L/R L/R	L/R L/R R	L/R R R/A	R			
33 47 68	336 476 686	R R R	R L/R R	R R A	R R/A	A				
100 150 220	107 157 227	A	R/A	A	A					

Developmental Ratings - subject to change

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

Low Profile: N, U, H, T, W Case

Custom Low Profile: X Case

RATINGS & PART NUMBER REFERENCE

AVX Part No.	EIA	CODE	Capacitance (μF)	Rated Voltage (V)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACK335M002#	0402	K	3.3	2.0	0.5	8.0	20.0
TACL335*002#	0603	L	3.3	2.0	0.5	6.0	10.0
TACK475M002#	0402	K	4.7	2.0	0.5	12.0	20.0
TACL475*002#	0603	L	4.7	2.0	0.5	6.0	10.0
TACL685*002#	0603	L	6.8	2.0	0.5	6.0	10.0
TACK106M002#	0402	K	10	2.0	0.5	15.0	10.0
TACL106*002#	0603	L	10	2.0	0.5	10.0	10.0
TACR226*002#	0805	R	22	2.0	0.7	8.0	6.0
TACR336*002#	0805	R	33	2.0	1.0	10.0	6.0
TACR476*002#	0805	R	47	2.0	1.5	10.0	6.0
TACR686M002#	0805	R	68	2.0	1.4	14.0	6.0
TACA157M002#	1206	A	150	2.0	3.0	20.0	1.0
TACK225M003#	0402	K	2.2	3.0	0.5	6.0	20.0
TACL225*003#	0603	L	2.2	3.0	0.5	6.0	10.0
TACK335M003#	0402	K	3.3	2.0	0.5	8.0	20.0
TACL335*003#	0603	L	3.3	3.0	0.5	6.0	10.0
TACK475M003#	0402	K	4.7	3.0	0.5	12.0	20.0
TACL475*003#	0603	L	4.7	3.0	0.5	6.0	10.0
TACL685*003#	0603	L	6.8	3.0	0.5	6.0	10.0
TACK106M003#	0402	K	10	3.0	0.5	15.0	10.0
TACL106*003#	0603	L	10	3.0	0.5	10.0	10.0
TACR156*003#	0805	R	15	3.0	0.5	8.0	6.0
TACL226M003#	0603	L	22	3.0	0.7	20.0	10.0
TACR226*003#	0805	R	22	3.0	0.7	8.0	6.0
TACR336*003#	0805	R	33	3.0	1.0	10.0	6.0
TACR476*003#	0805	R	47	3.0	1.5	10.0	6.0
TACR686M003#	0805	R	68	3.0	2.0	14.0	6.0
TACA107M003#	1206	A	100	3.0	3.0	15.0	1.0
TACL156*004#	0603	L	1.5	4.0	0.5	6.0	10.0
TACL225*004#	0603	L	2.2	4.0	0.5	6.0	10.0
TACL335*004#	0603	L	3.3	4.0	0.5	6.0	10.0
TACK475M004#	0402	K	4.7	4.0	0.5	15.0	20.0
TACL475*004#	0603	L	4.7	4.0	0.5	6.0	10.0
TACL685*004#	0603	L	6.8	4.0	0.5	8.0	10.0
TACL106M004#	0603	L	10	4.0	0.5	10.0	10.0
TACR106*004#	0805	R	10	4.0	0.5	8.0	6.0
TACL156M004#	0603	L	15	4.0	0.6	20.0	10.0
TACR156*004#	0805	R	15	4.0	0.6	8.0	6.0
TACL226M004#	0603	L	22	4.0	0.9	20.0	10.0
TACR226*004#	0805	R	22	4.0	0.9	8.0	6.0
TACR336*004#	0805	R	33	4.0	1.3	10.0	6.0
TACR476M004#	0805	R	47	4.0	1.9	14.0	6.0
TACA686M004#	1206	A	68	4.0	2.7	15.0	1.0
TACA107M004#	1206	A	100	4.0	4.0	20.0	1.0

AVX Part No.	EIA	CODE	Capacitance (μF)	Rated Voltage (V)	DCL (μA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACK105M006#	0402	K	1.0	6.3	0.5	6.0	20.0
TACL105*006#	0603	L	1.0	6.3	0.5	6.0	10.0
TACL155*006#	0603	L	1.5	6.3	0.5	6.0	10.0
TACK225M006#	0402	K	2.2	6.3	0.5	8.0	20.0
TACL225*006#	0603	L	2.2	6.3	0.5	6.0	10.0
TACL335*006#	0603	L	3.3	6.3	0.5	6.0	10.0
TACL475*006#	0603	L	4.7	6.3	0.5	8.0	10.0
TACL685*006#	0603	L	6.8	6.3	0.5	10.0	10.0
TACR685*006#	0805	R	6.8	6.3	0.5	8.0	6.0
TACL106M006#	0603	L	10	6.3	0.6	10.0	6.0
TACR106*006#	0805	R	10	6.3	0.6	8.0	6.0
TACL156M006#	0603	L	15	6.0	0.9	20.0	10.0
TACR156*006#	0805	R	15	6.3	0.9	8.0	6.0
TACR226*006#	0805	R	22	6.3	1.4	10.0	6.0
TACR336*006#	0805	R	33	6.3	2.1	12.0	6.0
TACA476M006#	1206	A	47	6.3	3.0	15.0	6.0
TACA107M006#	1206	A	100	6.3	6.3	20.0	1.0
TACK474M010#	0402	K	0.47	10.0	0.5	6.0	20.0
TACL474*010#	0603	L	0.47	10.0	0.5	6.0	12.0
TACK684M010#	0402	K	0.68	10.0	0.5	8.0	20.0
TACL684*010#	0603	L	0.68	10.0	0.5	6.0	10.0
TACK105*010#	0402	K	1.0	10.0	0.5	6.0	20.0
TACL105*010#	0603	L	1.0	10.0	0.5	6.0	10.0
TACL155*010#	0603	L	1.5	10.0	0.5	6.0	10.0
TACL225*010#	0603	L	2.2	10.0	0.5	6.0	10.0
TACL335*010#	0603	L	3.3	10.0	0.5	8.0	10.0
TACR335*010#	0805	R	33	10.0	0.5	8.0	6.0
TACL475M010#	0603	L	4.7	10.0	0.5	10.0	6.0
TACR475*010#	0805	R	4.7	10.0	0.5	8.0	6.0
TACR685*010#	0805	R	6.8	10.0	0.7	8.0	6.0
TACL106M010#	0603	L	10	10.0	1.0	20.0	10.0
TACR106*010#	0805	R	10	10.0	1.0	8.0	6.0
TACR156*010#	0805	R	15	10.0	1.5	10.0	6.0
TACR226M010#	0805	R	22	10.0	2.2	14.0	6.0
TACA226M010#	1206	A	22	10.0	2.2	10.0	1.0
TACA336M010#	1206	A	33	10.0	3.3	12.0	1.0
TACL474*016#	0603	L	0.47	16.0	0.5	6.0	10.0
TACL684*016#	0603	L	0.68	16.0	0.5	6.0	10.0
TACL105*016#	0603	L	1.0	16.0	0.5	6.0	10.0
TACL225M016#	0603	L	2.2	16.0	0.5	10.0	10.0
TACR106*016#	0805	R	10	16.0	1.6	10.0	6.0
TACR475M020#	0805	R	4.7	20.0	0.9	8.0	6.0
TACR105*025#	0805	R	1.0	25.0	0.5	8.0	6.0

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

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.