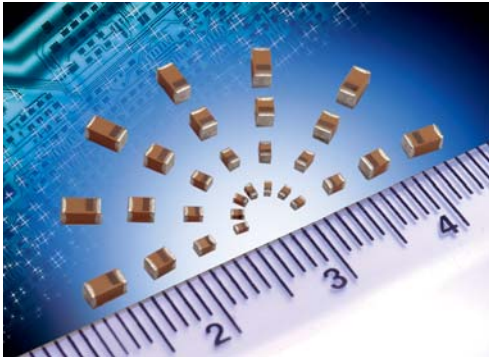


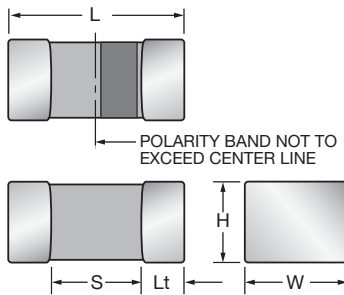
Standard Microchip



- The WW smallest surface mount tantalum capacitor
- CV range: 0.47 - 150µF / 2 - 25V
- 5 case sizes available
- Low profile options available
- Industrial and hi-rel medical applications



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
B	1210	3528-15	3.50 ^{+0.20} _{-0.20} (0.138 ^{+0.008} _{-0.008})	2.80 ^{+0.20} _{-0.10} (0.110 ^{+0.008} _{-0.004})	1.50 max.	2.00 min.	0.15 min.	90.0mg
K	0402	1005-07	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. (0.016 min.)	0.10 (0.004)	2.0mg
L	0603	1608-10	1.60 ^{+0.20} _{-0.00} (0.063 ^{+0.008} _{-0.000})	0.85 ^{+0.15} _{-0.00} (0.033 ^{+0.006} _{-0.000})	0.85 ^{+0.15} _{-0.00} (0.033 ^{+0.006} _{-0.000})	0.55 min. (0.022 min.)	0.15 (0.006)	8.6mg
R	0805	2012-15	2.00 ^{+0.20} _{-0.00} (0.079 ^{+0.008} _{-0.000})	1.35 ^{+0.15} _{-0.00} (0.053 ^{+0.006} _{-0.000})	1.35 ^{+0.15} _{-0.00} (0.053 ^{+0.006} _{-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®	1206=A 1210=B 0402=K 0603=L 0805=R	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		

Packaging Suffix

Reel Size	Standard Tin Termination Plastic Tape	Standard Tin Termination Plastic Tape	Gold Termination Plastic Tape
Case	A/B/R/L	K	A/B/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
Category Voltage (V _C)	≤ +125°C: 1.3 2 2.7 3.3 4 7 10 13 17
Surge Voltage (V _S)	≤ +85°C: 2.7 3.9 5.2 6.5 8 13 20 26 32
Surge Voltage (V _S)	≤ +125°C: 1.7 2.6 3.2 4 5 8 12 16 20
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	6.3V	10V	16V	20V	25V	50V
0.10 0.15 0.22	104 154 224							K*		
0.33 0.47 0.68	334 474 684					K ^(M) /L K ^(M) /L	L L			
1.0 1.5 2.2	105 155 225		K ^(M) /L	L L	K/L L K ^(M) /L	K/L L L	L L		R	A*
3.3 4.7 6.8	335 475 685	K ^(M) /L K ^(M) /L K ^(M) /L	K ^(M) /L K ^(M) /L L	L L L	L L L/R	L/R L/R L/R	R*	R ^(M) R ^(M)	A*	
10 15 22	106 156 226	K ^(M) /L R R	L R L ^(M) /R	J/L/R L ^(M) /R L ^(M) /R	L ^(M) /R L ^(M) /R R	L/R R R	R			
33 47 68	336 476 686	R R R ^(M)	R R R ^(M)	R R A ^(M)	R R ^(M) /A A ^{(M)*}	R ^(M) /A ^(M) /B* B				
100 150 220	107 157 227	A ^(M)	R ^(M) /A ^(M)	R ^(M) /A ^(M)	A ^(M)					

Released codes ^(M tolerance only)

*Codes under development - subject to change.

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

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

Note: Voltage ratings are minimum values. AVX reserves the right to supply higher ratings in the same case size, to the same reliability standards.

AVX Part No.	EIA Code	EIA Metric	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACK335M002#TA	0402	1005-07	K	3.3	2	0.5	8	15
TACL335*002#TA	0603	1608-10	L	3.3	2	0.5	6	7.5
TACK475M002#TA	0402	1005-07	K	4.7	2	0.5	12	15
TACL475*002#TA	0603	1608-10	L	4.7	2	0.5	6	7.5
TACK685M002#TA	0402	1005-07	K	6.8	2	0.5	20	15
TACL685*002#TA	0603	1608-10	L	6.8	2	0.5	6	7.5
TACK106M002#TA	0402	1005-07	K	10	2	0.5	15	15
TACL106*002#TA	0603	1608-10	L	10	2	0.5	10	7.5
TACR226*002#TA	0805	2012-15	R	22	2	0.5	8	5
TACR336*002#TA	0805	2012-15	R	33	2	0.7	10	5
TACR476*002#TA	0805	2012-15	R	47	2	0.9	10	5
TACR686M002#TA	0805	2012-15	R	68	2	1.4	14	5
TACA157M002#TA	1206	3216-18	A	150	2	3	20	1
TACK225M003#TA	0402	1005-07	K	2.2	3	0.5	6	15
TACL225*003#TA	0603	1608-10	L	2.2	3	0.5	6	7.5
TACK335M003#TA	0402	1005-07	K	3.3	3	0.5	8	15
TACL335*003#TA	0603	1608-10	L	3.3	3	0.5	6	7.5
TACK475M003#TA	0402	1005-07	K	4.7	3	0.5	12	15
TACL475*003#TA	0603	1608-10	L	4.7	3	0.5	6	7.5
TACL685*003#TA	0603	1608-10	L	6.8	3	0.5	6	7.5
TACL106*003#TA	0603	1608-10	L	10	3	0.5	10	7.5
TACR156*003#TA	0805	2012-15	R	15	3	0.5	8	5
TACL226M003#TA	0603	1608-10	L	22	3	0.7	20	7.5
TACR226*003#TA	0805	2012-15	R	22	3	0.7	8	5
TACR336*003#TA	0805	2012-15	R	33	3	1	10	5
TACR476*003#TA	0805	2012-15	R	47	3	1.5	10	5
TACR686M003#TA	0805	2012-15	R	68	3	2	14	5
TACA107M003#TA	1206	3216-18	A	100	3	3	15	1
TACR107M003#TA	0805	2012-15	R	100	3	3	30	5
TACL155*004#TA	0603	1608-10	L	1.5	4	0.5	6	7.5
TACL225*004#TA	0603	1608-10	L	2.2	4	0.5	6	7.5
TACL335*004#TA	0603	1608-10	L	3.3	4	0.5	6	7.5
TACL475*004#TA	0603	1608-10	L	4.7	4	0.5	6	7.5
TACL685*004#TA	0603	1608-10	L	6.8	4	0.5	8	7.5
TACL106*004#TA	0603	1608-10	L	10	4	0.5	10	7.5
TACR106*004#TA	0805	2012-15	R	10	4	0.5	8	5
TACL156M004#TA	0603	1608-10	L	15	4	0.6	20	7.5
TACR156*004#TA	0805	2012-15	R	15	4	0.6	8	5
TACL226M004#TA	0603	1608-10	L	22	4	0.9	20	7.5
TACR226*004#TA	0805	2012-15	R	22	4	0.9	8	5
TACR336*004#TA	0805	2012-15	R	33	4	1.3	10	5
TACR476*004#TA	0805	2012-15	R	47	4	1.9	14	5
TACA686M004#TA	1206	3216-18	A	68	4	2.7	15	1
TACA107M004#TA	1206	3216-18	A	100	4	4	20	1
TACR107M004#TA	0805	2012-15	R	100	4	4	30	5
TACK105*006#TA	0402	1005-07	K	1	6.3	0.5	6	15
TACL105*006#TA	0603	1608-10	L	1	6.3	0.5	6	7.5
TACL155*006#TA	0603	1608-10	L	1.5	6.3	0.5	6	7.5
TACK225M006#TA	0402	1005-07	K	2.2	6.3	0.5	8	15

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

Refers to termination finished and packaging reel size

MSL level: See page 116 (6. Moisture Sensitivity Level) or packaging and reel label.

AVX Part No.	EIA Code	EIA Metric	Case Size	Cap (µF)	Rated Voltage (V)	DCL (µA) Max.	DF % Max.	ESR Max. (Ω) @100kHz
TACL225*006#TA	0603	1608-10	L	2.2	6.3	0.5	6	7.5
TACL335*006#TA	0603	1608-10	L	3.3	6.3	0.5	6	7.5
TACL475*006#TA	0603	1608-10	L	4.7	6.3	0.5	8	7.5
TACL685*006#TA	0603	1608-10	L	6.8	6.3	0.5	10	7.5
TACR685*006#TA	0805	2012-15	R	6.8	6.3	0.5	8	5
TACL106M006#TA	0603	1608-10	L	10	6.3	0.6	10	6
TACR106*006#TA	0805	2012-15	R	10	6.3	0.6	8	5
TACL156M006#TA	0603	1608-10	L	15	6.3	0.9	20	7.5
TACR156*006#TA	0805	2012-15	R	15	6.3	0.9	8	5
TACR226*006#TA	0805	2012-15	R	22	6.3	1.4	10	5
TACR336*006#TA	0805	2012-15	R	33	6.3	2.1	12	5
TACR476M006#TA	0805	2012-15	R	47	6.3	3	20	5
TACA476*006#TA	1206	3216-18	A	47	6.3	3	15	1
TACA686M006#TA	1206	3216-18	A	68	6.3	4.3	15	1
TACA107M006#TA	1206	3216-18	A	100	6.3	6.3	20	1
TACK474M010#TA	0402	1005-07	K	0.47	10	0.5	6	15
TACL474*010#TA	0603	1608-10	L	0.47	10	0.5	6	7.5
TACK684M010#TA	0402	1005-07	K	0.68	10	0.5	8	15
TACL684*010#TA	0603	1608-10	L	0.68	10	0.5	6	7.5
TACK105*010#TA	0402	1005-07	K	1	10	0.5	6	15
TACL105*010#TA	0603	1608-10	L	1	10	0.5	6	7.5
TACL155*010#TA	0603	1608-10	L	1.5	10	0.5	6	7.5
TACL225*010#TA	0603	1608-10	L	2.2	10	0.5	6	7.5
TACL335*010#TA	0603	1608-10	L	3.3	10	0.5	8	7.5
TACR335*010#TA	0805	2012-15	R	3.3	10	0.5	8	5
TACL475*010#TA	0603	1608-10	L	4.7	10	0.5	10	6
TACR475*010#TA	0805	2012-15	R	4.7	10	0.5	8	6
TACL685*010#TA	0603	1608-10	L	6.8	10	0.7	20	7.5
TACR685*010#TA	0805	2012-15	R	6.8	10	0.7	8	5
TACL106*010#TA	0603	1608-10	L	10	10	1	20	7.5
TACR106*010#TA	0805	2012-15	R	10	10	1	8	5
TACR156*010#TA	0805	2012-15	R	15	10	1.5	10	5
TACR226*010#TA	0805	2012-15	R	22	10	2.2	14	5
TACA336M010#TA	1206	3216-18	A	33	10	3.3	12	1
TACB336*010#TA	1210	3528-15	B	33	10	3.3	15	1
TACR336M010#TA	0805	2012-15	R	33	10	3.3	20	5
TACB476*010#TA	1210	3528-15	B	47	10	4.7	15	1
TACL474*016#TA	0603	1608-10	L	0.47	16	0.5	6	7.5
TACL684*016#TA	0603	1608-10	L	0.68	16	0.5	6	7.5
TACL105*016#TA	0603	1608-10	L	1	16	0.5	6	7.5
TACL225*016#TA	0603	1608-10	L	2.2	16	0.5	10	7.5
TACR335*016#TA	0805	2012-15	R	3.3	16	0.5	8	5
TACR106*016#TA	0805	2012-15	R	10	16	1.6	10	5
TACK104*020#TA	0402	1005-07	K	0.10	20	0.5	6	40
TACR335M020#TA	0805	2012-15	R	3.3	20	0.7	8	5
TACR475M020#TA	0805	2012-15	R	4.7	20	0.9	8	5
TACR105*025#TA	0805	2012-15	R	1	25	0.5	8	5
TACA475*025#TA	1206	3216-18	A	4.7	25	1.2	8	1
TACA105*050#TA	1206	3216-18	A	1.0	50	0.5	6	1

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.

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.