

# Low Inductance Chip Capacitors



## Specially Designed MLC Chips for Low Inductance



AVX's low inductance capacitors are designed for use in high speed circuits. Their aspect ratio and size have been optimized to reduce inductance from the 1 nH range found in normal chip capacitors to less than 0.4 nH. Their low profile is ideal for surface mounting or inside cavity mounting, adjacent to the IC itself.

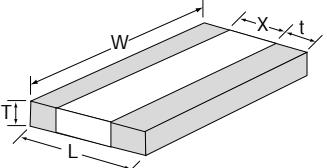
### HOW TO ORDER

0508	5	C	822	M	A	T	1	W
AVX Style	Voltage	Temperature Coefficient	Capacitance Code	Capacitance Tolerance	Failure Rate	Termination	Marking	Special Code
50V = 5	25V = 3	C = X7R G = Y5V	(2 significant digits + no. of zeros)	M = ±20% Z = +80,-20%	A = Does not apply H = High Rel*	T = NiGuard Nickel Barrier Solder Plate	Packaging	Thickness: mm (in.)
0306	25V = 3			P = GMV			9 = Bulk Unmarked	U=.51 (.020) max
0508	16V = Y			K = ±10%			1 = Reel Unmarked	V=.76 (.030) max.
0612	10V = Z		Examples: 10 pF = 100 100 pF = 101 1,000 pF = 102 22,000 pF = 223 220,000 pF = 224 1 μF = 105					W=1.02 (.040) max.

\*Consult factory for details.

### CAPACITANCE RANGE: X7R AND Y5V DIELECTRIC

Dimensions: millimeters (inches)

				
AVX Style		0306	0508	0612
Length (L)	MM (in.)	0.81 ± 0.15 (.032 ± .006)	1.27 ± .25 (.050 ± .010)	1.6 ± .25 (.060 ± .010)
Width (W)	MM (in.)	1.60 ± 0.15 (.063 ± .006)	2.0 ± .25 (.080 ± .010)	3.2 ± .25 (.126 ± .010)
Separation (X)	MM (in.) min.	0.23 (.009)	0.38 (.015)	0.50 (.020)
Terminal (t)*	MM (in.)	0.38 max. / 0.13 min. (0.015 max. / 0.005 min.)	0.50 max. / 0.13 min. (0.020 max. / 0.005 min.)	0.46 max. / 0.13 min. (0.018 max. / 0.005 min.)

### MAXIMUM CAPACITANCE VALUES, (μF)

Thickness (T)	Size	X7R			Y5V		
		10V	16V	25V	10V	16V	25V
0.050	0612	2.2	1.0	0.27	6.8	3.3	1.2
0.040	0612	1.5	0.68	0.22	4.7	1.8	.82
	0508	0.68	0.27	0.1	2.2	1.0	.47
0.030	0612	1.0	0.47	0.12	3.3	1.5	.56
	0508	0.47	0.18	0.056	1.5	.56	.22
0.022	0612	0.47	0.18	0.056	1.5	.68	.27
	0508	0.22	0.082	0.022	0.68	.33	.12
	0306	0.1					

