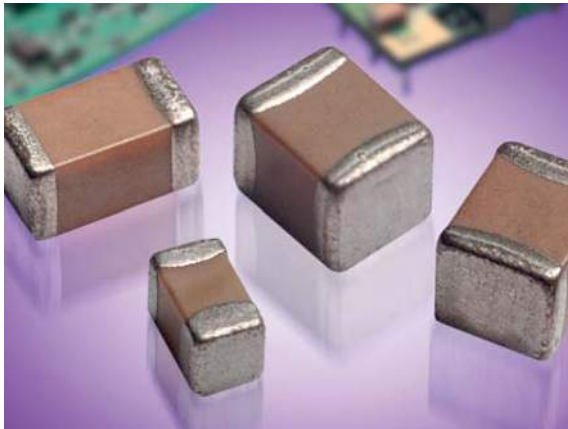


High Voltage MLC Chips

For 600V to 5000V Applications



NEW 630V RANGE

High value, low leakage and small size are difficult parameters to obtain in capacitors for high voltage systems. AVX special high voltage MLC chip capacitors meet these performance characteristics and are designed for applications such as snubbers in high frequency power converters, resonators in SMPS, and high voltage coupling/dc blocking. These high voltage chip designs exhibit low ESRs at high frequencies.

Larger physical sizes than normally encountered chips are used to make high voltage MLC chip products. Special precautions must be taken in applying these chips in surface mount assemblies. The temperature gradient during heating or cooling cycles should not exceed 4°C per second. The preheat temperature must be within 50°C of the peak temperature reached by the ceramic bodies through the soldering process. Chip sizes 1210 and larger should be reflow soldered only. Capacitors may require protective surface coating to prevent external arcing.

For 1825, 2225 and 3640 sizes, AVX offers leaded version in either thru-hole or SMT configurations (for details see section on high voltage leaded MLC chips).

HOW TO ORDER

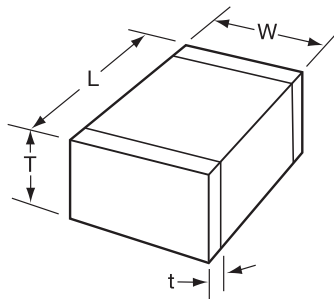
1808	A	A	271	K	A	1	2	A
AVX Style	Voltage	Temperature Coefficient	Capacitance Code (2 significant digits + no. of zeros)	Capacitance Tolerance	Test Level	Termination*	Packaging	Special Code
0805	600V/630V = C	NPO (COG) = A	Examples: 10 pF = 100 100 pF = 101 1,000 pF = 102 22,000 pF = 223 220,000 pF = 224 1 μF = 105	COG:J = ±5% K = ±10% M = ±20% X7R:K = ±10% M = ±20% Z = +80%, -20%	A = Standard	1 = Pd/Ag T = Plated Ni and Sn (RoHS Compliant)	1 or 2 = 7" Reel** 3 or 4 = 13" Reel	A = Standard
1206	1000V = A	X7R = C						
1210	1500V = S							
1808	2000V = G							
1812	2500V = W							
1812	3000V = H							
1825	4000V = J							
2220	5000V = K							
2225								
3640								

*Note: Terminations with 5% minimum lead (Pb) is available, see pages 100 and 101 for LD style. Leaded terminations are available, see pages 102-106.

Notes: Capacitors with X7R dielectrics are not intended for applications across AC supply mains or AC line filtering with polarity reversal. Contact plant for recommendations. Contact factory for availability of Termination and Tolerance options for Specific Part Numbers.

** The 3640 Style is not available on 7" Reels.

*** AVX offers nonstandard chip sizes. Contact factory for details.



DIMENSIONS

	millimeters (inches)								
SIZE	0805	1206	1210*	1808*	1812*	1825*	2220*	2225*	3640*
(L) Length	2.10 ± 0.20 (0.083 ± 0.008)	3.30 ± 0.30 (0.130 ± 0.012)	3.30 ± 0.40 (0.130 ± 0.016)	4.60 ± 0.50 (0.181 ± 0.020)	4.60 ± 0.50 (0.181 ± 0.020)	4.60 ± 0.50 (0.181 ± 0.020)	5.70 ± 0.50 (0.224 ± 0.020)	5.72 ± 0.25 (0.225 ± 0.010)	9.14 ± 0.25 (0.360 ± 0.010)
(W) Width	1.25 ± 0.20 (0.049 ± 0.008)	1.60 ^{+0.30} _{-0.10} (0.063 ^{+0.012} _{-0.004})	2.50 ± 0.30 (0.098 ± 0.012)	2.00 ± 0.20 (0.079 ± 0.008)	3.20 ± 0.30 (0.126 ± 0.012)	6.30 ± 0.40 (0.248 ± 0.016)	5.00 ± 0.40 (0.197 ± 0.016)	6.35 ± 0.25 (0.250 ± 0.010)	10.2 ± 0.25 (0.400 ± 0.010)
(T) Thickness Max.	1.35 (0.053)	1.80 (0.071)	2.80 (0.110)	2.20 (0.087)	2.80 (0.110)	3.40 (0.134)	3.40 (0.134)	2.54 (0.100)	2.54 (0.100)
(t) terminal min. max.	0.50 ± 0.20 (0.020 ± 0.008)	0.60 ± 0.20 (0.024 ± 0.008)	0.75 ± 0.35 (0.030 ± 0.014)	0.75 ± 0.35 (0.030 ± 0.014)	0.75 ± 0.35 (0.030 ± 0.014)	0.75 ± 0.35 (0.030 ± 0.014)	0.85 ± 0.35 (0.033 ± 0.014)	0.85 ± 0.35 (0.033 ± 0.014)	0.76 (0.030) 1.52 (0.060)

*Reflow Soldering Only

Mouser Electronics

Authorized Distributor

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AVX:

[1206AA101JAT1A](#) [1206AA101KAM1A](#) [1206AA220KAT1A](#) [1206AA221JAT1A](#) [1206AA330JAT1A](#)
[1206AA470KAT1A](#) [1206AA471JAT1A](#) [1206AC102KAT1A](#) [1206AC222KAT1A](#) [1206AC272KAT1A](#) [1206AC392KAT1A](#)
[1206AC471KAT1A](#) [1206AC472KA11A](#) [1206AC472KAT1A](#) [1206AC472MAT1A](#) [1206CA101JAT3A](#)
[1206CA221KAT1A](#) [1206CA331KAT1A](#) [1206CC102KAT1A](#) [1206CC102MAT1A](#) [1206CC103KAT1A](#)
[1206CC153KAT1A](#) [1206CC153MAT1A](#) [1206CC271KAT1A](#) [1206CC471KAT1A](#) [1206CC472KBT1A](#)
[1206CC822KAT1A](#) [1206GA220JAT1A](#) [1206GA330KAT1A](#) [1206GC101KAT1A](#) [1206GC101MAT1A](#)
[1206GC102KAT1A](#) [1206GC221KAT1A](#) [1206GC471KA11A](#) [1206GC471KAT1A](#) [1206GC471MAT1A](#)
[1206JA102KAT2A](#) [1206SA101JAT1A](#) [1206SA390JAT1A](#) [1206SC102KAT1A](#) [1206SC122KA11A](#) [1206SC122KAT1A](#)
[1206SC471KAT1A](#) [1210AA331KAT1A](#) [1210AC103KAT1A](#) [1210AC222MAT1A](#) [1210AC272KAT1A](#)
[1210AC472KAT1A](#) [1210AC822KAT1A](#) [1210CC102KAT1A](#) [1210CC103KAT1A](#) [1210CC153KAT1A](#)
[1210CC223KAT1A](#) [1210CC273KAT1A](#) [1210GC101KAT1A](#) [1210GC102KAT1A](#) [1210GC102MAT1A](#)
[1210GC471KAT1A](#) [1210GC821KAT1A](#) [1210SC222MAT1A](#) [1210SC272KAT1A](#) [1210SC272MAT1A](#)
[1808AA101KAT1A](#) [1808AA102KAT1A](#) [1808AA330KAT1A](#) [1808AA331KAT1A](#) [1808AA331KAT2A](#) [1808AA560JAT1A](#)
[1808AA680KAT1A](#) [1808AC102KAT1A](#) [1808AC103KAT1A](#) [1808AC103KBT1A](#) [1808AC103MAT1A](#)
[1808AC152KAT1A](#) [1808AC153KA11A](#) [1808AC153KAT1A](#) [1808AC153KAT3A](#) [1808AC153MAT1A](#)
[1808AC153MAT3A](#) [1808AC202MAT1A](#) [1808AC222KAT1A](#) [1808AC471KBT1A](#) [1808AC472KAT1A](#)
[1808AC682KAT1A](#) [1808CA470MAT1A](#) [1808CC103KA11A](#) [1808CC103KAT1A](#) [1808CC393KAT1A](#)
[1808CC393MA11A](#) [1808CC393MAT1A](#) [1808CC472KAT1A](#) [1808GA101JAT1A](#) [1808GA221JAT1A](#)
[1808GA221JAT3A](#) [1808GA221KAT1A](#) [1808GA331KAT1A](#) [1808GC101KAT1A](#) [1808GC102KAT1A](#)
[1808GC102MAT1A](#) [1808GC152KA11A](#)