

MLCC Multilayer Chip Capacitors



Ultra stable Class I dielectric (EIA COG) or NPO:

linear temperature coefficient, low loss, stable electrical properties with time, voltage and frequency. Designed for surface mount application with nickel barrier termination

suitable for solder wave, vapor phase or reflow solder board attachment. Also available with silver-palladium terminations for hybrid use with conductive epoxy. COG chips are used in precision circuitry requiring Class I stability.

CAPACITANCE & VOLTAGE SELECTION FOR POPULAR CHIP SIZES

3 digit code: two significant digits, followed by number of zeros eg: 183 = 18,000 pF. R denotes decimal, eg. 2R7 = 2.7 pF

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
MIn Cap	0R3	0R5	0R3	0R5	0R5	0R5	0R5	0R5	100	150	270	270
16V	271	222	182	682	822	153	273	393	563	823	104	124
25V	221	182	122	562	682	123	273	333	563	823	104	124
50V	181	152	102	472	562	123	223	273	473	823	104	124
100V	181	152	102	392	562	123	223	273	473	683	823	104
200V	680	561	391	182	222	392	822	123	183	473	473	563
250V	390	331	221	102	152	272	562	682	103	273	273	333
300V	.	.	.	681	821	222	392	472	822	273	223	273
400V	.	.	.	471	561	152	332	332	682	183	153	183
500V	.	.	.	471	471	122	332	272	562	123	123	153
600V	.	.	.	471	471	122	332	222	472	123	103	153
800V*	.	.	.	471	471	122	332	182	392	103	103	123
1000V*	.	.	.	391	471	102	222	182	392	103	103	123
1500V*	.	.	.	.	.	561	122	122	222	472	472	682
2000V*	.	.	.	.	.	391	821	821	182	272	272	392
3000V*	.	.	.	.	.	.	.	391	821	122	122	182
4000V*	.	.	.	.	.	.	.	221	471	681	681	102

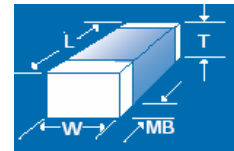
*Units rated above 800V may require conformal coating in use to preclude arcing over the chip surface.



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 Issue: July-2003



DIMENSIONS +/- INCHES (MM)

SIZE	0402	0504	0603	0805	1005	1206	1210	1808	1812	1825	2221	2225
LENGTH L	.040 (1.02)	.050 (1.27)	.060 (1.52)	.080 (2.03)	.100 (2.54)	.125 (3.18)	.125 (3.18)	.180 (4.57)	.180 (4.57)	.180 (4.57)	.220 (5.59)	.220 (5.59)
WIDTH W	.020 (.508)	.040 (1.02)	.030 (.760)	.050 (1.27)	.050 (1.27)	.060 (1.52)	.100 (2.54)	.080 (2.03)	.125 (3.18)	.250 (6.35)	.210 (5.33)	.250 (6.35)
T MAX.	.024 (.610)	.044 (1.12)	.035 (.889)	.054 (1.37)	.054 (1.37)	.064 (1.63)	.065 (1.65)	.065 (1.65)	.065 (1.65)	.080 (2.03)	.080 (2.03)	.080 (2.03)
MB	.010 (.254)	.014 (.355)	.014 (.355)	.020 (.508)	.020 (.508)	.020 (.508)	.020 (.508)	.024 (.610)	.024 (.610)	.024 (.610)	.030 (.760)	.030 (.760)

TOLERANCES +/- INCHES (MM)

LENGTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.012 (.305)	.012 (.305)	.012 (.305)	.015 (.380)	.015 (.380)
WIDTH	.004 (.102)	.006 (.152)	.006 (.152)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.008 (.203)	.015 (.380)	.015 (.380)	.015 (.380)
MB	.006 (.152)	.006 (.152)	.006 (.152)	.010 (.254)	.010 (.254)	.010 (.254)	.010 (.254)	.014 (.355)	.014 (.355)	.014 (.355)	.015 (.380)	.015 (.380)

HOW TO ORDER

1206	N	272	J	101	N	X	T	M
SIZE See Chart	DIELECTRIC N =COG	CAPACITANCE Value in Picofarads Two significant figures, followed by number of zeros: 272 = 2700 pF	TOLERANCE B = 0.10 pF (0.1 to 10 pF) C = 0.25 pF (0.1 to 10 pF) D = 0.50 pF (0.1 to 20 pF) F = +/- 1.0 % G = +/- 2.0 % H = +/- 3.0 % J = +/- 5.0 % K = +/- 10 % M = +/- 20 % Z = +80% -20% P = +100% -0%	VOLTAGE-VDCW Two significant figures, followed by number of zeros: 101 = 100V	TERMINATION N = Nickel Barrier (100% Sn) P = Palladium Silver Y = Nickel Barrier (90Sn/10Pb)	THICKNESS OPTION X = Non-standard thickness. Specify in Mils if non-standard is required. Standard items are any thickness to Max. shown in charts.	PACKING OPTION T = Reeled	MARKING OPTION M = Marked (See Marking Specifications)



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