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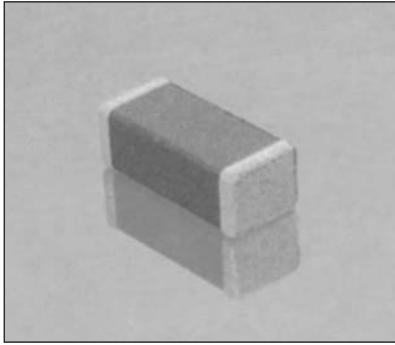
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Jameco Part Number 2027725

High Voltage MLCC (RoHS)

Applications from 600V to 5000V



Advanced Ceramic Capacitors

High value, low leakage and small size are difficult parameters to obtain in capacitors for high voltage systems. AVX special high voltage MLC chips 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 chips. These larger sizes require that special precautions be taken in applying these chips in surface mount assemblies. This is due to differences in the coefficient of thermal expansion (CTE) between the substrate materials and chip capacitors. Apply heat at less than 4°C per second during the preheat. The preheat temperature must be within 50°C of the peak temperature reached by the ceramic bodies through the soldering process. Chips 1808 and larger to use reflow soldering only.

Capacitors with X7R Dielectrics are not intended for AC line filtering applications. Contact plant for recommendations.

Capacitors may require protective surface coating to prevent external arcing.

NEW 630V RANGE



Check for up-to-date CV Tables at <http://www.avx.com/docs/catalogs/aphvc.pdf>

HOW TO ORDER

1808

AVX Style
1206
1210
1808
1812
1825
2220
2225
3640

A

Voltage
600V/630V = C
1000V = A
1500V = S
2000V = G
2500V = W
3000V = H
4000V = J
5000V = K

A

Temperature Coefficient
COG = A
X7R = C

271

Capacitance Code
(2 significant digits + no. of zeros)
Examples:
10 pF = 100
100 pF = 101
1,000 pF = 102
22,000 pF = 223
220,000 pF = 224
1 μF = 105

K

Capacitance Tolerance
COG: J = ±5%
K = ±10%
M = ±20%
X7R: K = ±10%
M = ±20%
Z = +80%, -20%

A

Test Level
A = Standard

1

Termination*
1 = Pd/Ag
T = NiGuard
Nickel
Barrier
Solderable
Plate
Z = Flexitem™ V+

1

Packaging
1 = 7" Reel
3 = 13" Reel
9 = Bulk

A

Special Code
A = Standard

***Note:** Capacitors with X7R dielectrics are not intended for applications across AC supply mains or AC line filtering with polarity reversal. Contact plant for recommendations.

NOTE: Contact factory for availability of Termination and Tolerance Options for Specific Part Numbers.

HIGH VOLTAGE COG CAPACITANCE VALUES

VOLTAGE	0805	1206	1210	1808	1812	1825	2220	2225	3640
600/630	min. 10pF max. 330pF	10 pF 1200 pF	100 pF 2700 pF	100 pF 3300 pF	100 pF 5600 pF	1000 pF 0.012 μF	1000 pF 0.012 μF	1000 pF 0.018 μF	1000 pF 0.047 μF
1000	min. 10pF max. 180pF	10 pF 560 pF	10 pF 1500 pF	100 pF 2200 pF	100 pF 3300 pF	100 pF 8200 pF	1000 pF 0.010 μF	1000 pF 0.010 μF	1000 pF 0.022 μF
1500	min. — max. —	10 pF 270 pF	10 pF 680 pF	10 pF 820 pF	10 pF 1800 pF	100 pF 4700 pF	100 pF 4700 pF	100 pF 5600 pF	100 pF 0.010 μF
2000	min. — max. —	10 pF 120 pF	10 pF 270 pF	10 pF 330 pF	10 pF 680 pF	100 pF 1800 pF	100 pF 2200 pF	100 pF 2700 pF	100 pF 6800 pF
2500	min. — max. —	—	—	10 pF 180 pF	10 pF 470 pF	10 pF 1200 pF	100 pF 1500 pF	100 pF 1800 pF	100 pF 3900 pF
3000	min. — max. —	—	—	10 pF 120 pF	10 pF 330 pF	10 pF 820 pF	10 pF 1000 pF	10 pF 1200 pF	100 pF 2700 pF
4000	min. — max. —	—	—	10 pF 47 pF	10 pF 150 pF	10 pF 330 pF	10 pF 470 pF	10 pF 560 pF	100 pF 1200 pF
5000	min. — max. —	—	—	—	—	—	—	—	10 pF 820 pF

HIGH VOLTAGE X7R MAXIMUM CAPACITANCE VALUES

VOLTAGE	0805	1206	1210	1808	1812	1825	2220	2225	3640
600/630	min. 100pF max. 6800pF	1000 pF 0.022 μF	1000 pF 0.056 μF	1000 pF 0.068 μF	1000 pF 0.120 μF	0.010 μF 0.270 μF	0.010 μF 0.270 μF	0.010 μF 0.330 μF	0.010 μF 0.560 μF
1000	min. 100pF max. 1500pF	100 pF 6800 pF	1000 pF 0.015 μF	1000 pF 0.018 μF	1000 pF 0.039 μF	1000 pF 0.100 μF	1000 pF 0.120 μF	1000 pF 0.150 μF	1000 pF 0.220 μF
1500	min. — max. —	100 pF 2700 pF	100 pF 6800 pF	100 pF 6800 pF	100 pF 0.015 μF	1000 pF 0.056 μF	1000 pF 0.056 μF	1000 pF 0.068 μF	1000 pF 0.100 μF
2000	min. — max. —	10 pF 1500 pF	100 pF 3900 pF	100 pF 3300 pF	100 pF 8200 pF	100 pF 0.027 μF	1000 pF 0.027 μF	1000 pF 0.033 μF	1000 pF 0.027 μF
2500	min. — max. —	—	—	10 pF 2200 pF	10 pF 5600 pF	100 pF 0.015 μF	100 pF 0.018 μF	100 pF 0.022 μF	100 pF 0.022 μF
3000	min. — max. —	—	—	10 pF 1800 pF	10 pF 4700 pF	100 pF 0.012 μF	100 pF 0.012 μF	100 pF 0.015 μF	1000 pF 0.018 μF
4000	min. — max. —	—	—	—	—	—	—	—	100 pF 6800 pF
5000	min. — max. —	—	—	—	—	—	—	—	100 pF 3300 pF