

MLC Chip Capacitors

High Voltage MLC Leaded Chips

For 600V to 5000V Applications

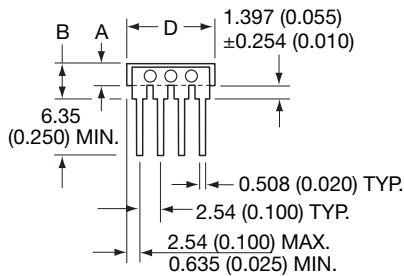


HOW TO ORDER

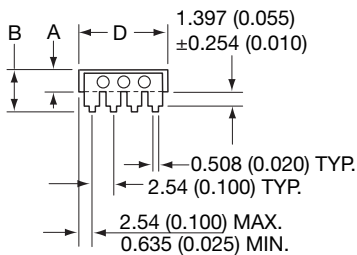
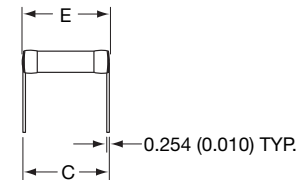
1825	A	A	271	K	A	V	00N
AVX Style 1825 2225 3640	Voltage 600V/630V = C 1000V = A 1500V = S 2000V = G 2500V = W 3000V = H 4000V = J 5000V = K	Temperature Coefficient C0G = A X7R = C	Capacitance Code (2 significant digits + no. of zeros) Examples: 10 pF = 100 100 pF = 101 1,000 pF = 102 22,000 pF = 223 220,000 pF = 224	Capacitance Tolerance C0G: J = ±5% K = ±10% M = ±20% X7R: K = ±10% M = ±20% Z = +80%, -20%	Test Level A = Standard	Finish V = Uncoated W = Epoxy Coated	Lead Style 00N = Straight Lead 00J = Leads Formed In 00L = Leads Formed Out

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. Capacitors may require protective surface coating to prevent external arcing.

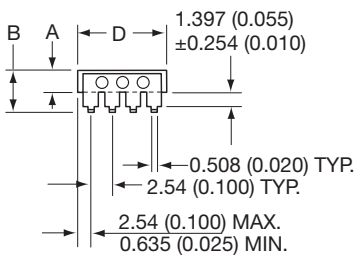
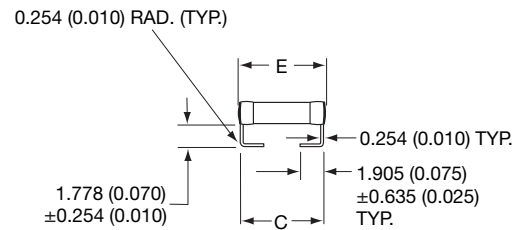
Not RoHS Compliant



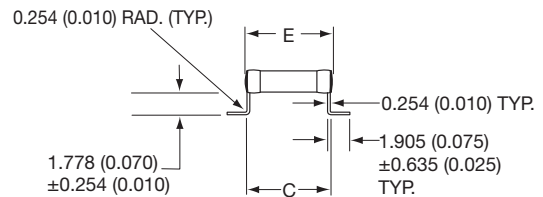
“N” STYLE LEADS



“J” STYLE LEADS



“L” STYLE LEADS



DIMENSIONS

millimeters (inches)

Style	A (max.)	B (max.)	C ±.635 (±0.025)	D ±.635 (±0.025)	E (max.)	No. of Leads per side
1825			5.08 (0.200)	6.35 (0.250)	6.86 (0.270)	3
2225	2.54 (0.100)	For “N” Style Leads, “B” Dimension = 4.19 (0.165) For “J” & “L” Leads, “B” Dimension = 4.58 (0.180)	6.35 (0.250)	6.35 (0.250)	7.62 (0.300)	3
3640			10.2 (0.400)	10.2 (0.400)	11.2 (0.440)	4

Note: For W (Epoxy Coated) part add 0.127 (0.005) to max. and nominal dimensions A, B, D, & E

Performance of SMPS capacitors can be simulated by downloading SpiCalci software program - <http://www.avx.com/download/software/SpiCalci-AVX.zip>
Custom values, ratings and configurations are also available.

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COG Dielectric

Performance Characteristics

Capacitance Range	10 pF to 0.047 μ F (25°C, 1.0 \pm 0.2 Vrms at 1kHz, for \leq 1000 pF use 1 MHz)
Capacitance Tolerances	\pm 5%, \pm 10%, \pm 20%
Dissipation Factor	0.15% max. (+25°C, 1.0 \pm 0.2 Vrms, 1kHz, for \leq 1000 pF use 1 MHz)
Operating Temperature Range	-55°C to +125°C
Temperature Characteristic	0 \pm 30 ppm/°C (0 VDC)
Voltage Ratings	600, 630, 1000, 1500, 2000, 2500, 3000, 4000 & 5000 VDC (+125°C)
Insulation Resistance (+25°C, at 500 VDC)	100K M Ω min. or 1000 M Ω - μ F min., whichever is less
Insulation Resistance (+125°C, at 500 VDC)	10K M Ω min. or 100 M Ω - μ F min., whichever is less
Dielectric Strength	Minimum 120% rated voltage for 5 seconds at 50 mA max. current

HIGH VOLTAGE COG CAPACITANCE VALUES

VOLTAGE		1825	2225	3640
600/630	min.	1000 pF	1000 pF	1000 pF
	max.	0.012 μ F	0.018 μ F	0.047 μ F
1000	min.	100 pF	1000 pF	1000 pF
	max.	8200 pF	0.010 μ F	0.022 μ F
1500	min.	100 pF	100 pF	100 pF
	max.	4700 pF	5600 pF	0.010 μ F
2000	min.	100 pF	100 pF	100 pF
	max.	1800 pF	2700 pF	6800 pF
2500	min.	10 pF	100 pF	100 pF
	max.	1200 pF	1800 pF	3900 pF
3000	min.	10 pF	10 pF	100 pF
	max.	8200 pF	1200 pF	2700 pF
4000	min.	10 pF	10 pF	100 pF
	max.	330 pF	560 pF	1200 pF
5000	min.	—	10 pF	10 pF
	max.	—	270 pF	820 pF

X7R Dielectric

Performance Characteristics

Capacitance Range	100 pF to 0.56 μ F (25°C, 1.0 \pm 0.2 Vrms at 1kHz)
Capacitance Tolerances	\pm 10%; \pm 20%; +80%, -20%
Dissipation Factor	2.5% max. (+25°C, 1.0 \pm 0.2 Vrms, 1kHz)
Operating Temperature Range	-55°C to +125°C
Temperature Characteristic	\pm 15% (0 VDC)
Voltage Ratings	600, 630, 1000, 1500, 2000, 2500, 3000, 4000 & 5000 VDC (+125°C)
Insulation Resistance (+25°C, at 500 VDC)	100K M Ω min. or 1000 M Ω - μ F min., whichever is less
Insulation Resistance (+125°C, at 500 VDC)	10K M Ω min. or 100 M Ω - μ F min., whichever is less
Dielectric Strength	Minimum 120% rated voltage for 5 seconds at 50 mA max. current

HIGH VOLTAGE X7R MAXIMUM CAPACITANCE VALUES

VOLTAGE		1825	2225	3640
600/630	min.	0.010 μ F	0.010 μ F	0.010 μ F
	max.	0.270 μ F	0.330 μ F	0.560 μ F
1000	min.	1000 pF	1000 pF	0.010 μ F
	max.	0.100 μ F	0.150 μ F	0.220 μ F
1500	min.	1000 pF	1000 pF	1000 pF
	max.	0.056 μ F	0.068 μ F	0.100 μ F
2000	min.	100 pF	1000 pF	1000 pF
	max.	0.022 μ F	0.033 μ F	0.027 μ F
2500	min.	100 pF	100 pF	1000 pF
	max.	0.015 μ F	0.022 μ F	0.022 μ F
3000	min.	100 pF	100 pF	1000 pF
	max.	0.010 μ F	0.015 μ F	0.018 μ F
4000	min.	—	—	100 pF
	max.	—	—	6800 pF
5000	min.	—	—	100 pF
	max.	—	—	3300 pF