MLC Chip Capacitors

High Voltage MLC Leaded Chips

For 600V to 5000V Applications

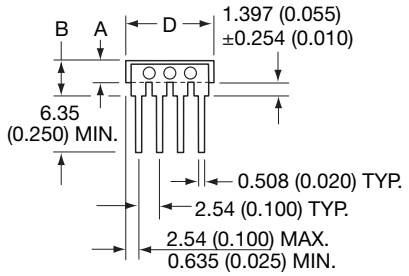
HOW TO ORDER

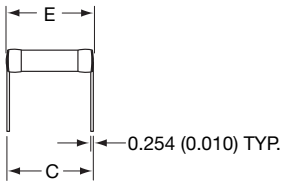
1825	A	A	271	K	A	V	00N
KAVX Style 1825 2225 3640	**Voltage** 600V/630V = C 1000V = A 1500V = S 2000V = G 2500V = W 3000V = H 4000V = J 5000V = K	**Temperature Coefficient** C0G = A X7R = C	**Capacitance Code** (2 significant digits + no. of zeros) Examples: 10 pF = 100 100 pF = 101 1,000 pF = 102 22,000 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.

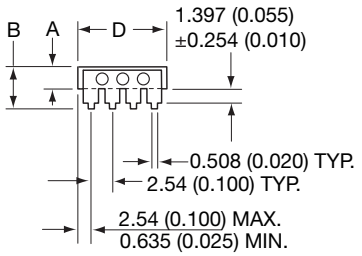
Not RoHS Compliant

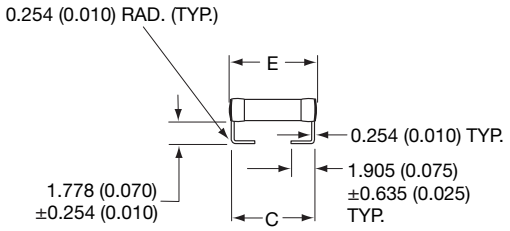
"N" STYLE LEADS



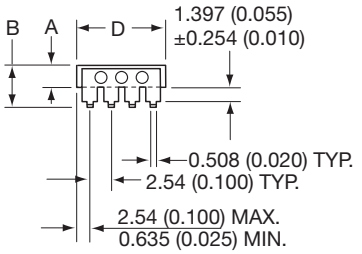


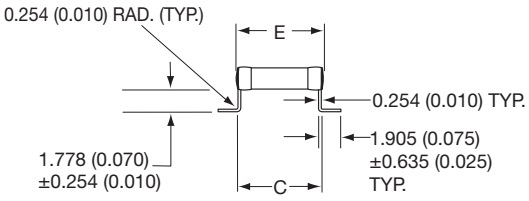
"J" STYLE LEADS





"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	2.54 (0.100)	For "N" Style Leads, "B" Dimension = 4.19 (0.165) For "J" & "L" Leads, "B" Dimension = 4.58 (0.180)	5.08 (0.200)	6.35 (0.250)	6.86 (0.270)	3
2225			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.kyocera-avx.com/download/software/SpiCalci-AVX.zip
Custom values, ratings and configurations are also available.

C0G Dielectric

Performance Characteristics

Capacitance Range	10 pF to 0.047 µF (25°C, 1.0 ±0.2 Vrms at 1kHz, for ≤ 1000 pF use 1 MHz)
Capacitance Tolerances	±5%, ±10%, ±20%
Dissipation Factor	0.15% max. (+25°C, 1.0 ±0.2 Vrms, 1kHz, for ≤ 1000 pF use 1 MHz)
Operating Temperature Range	-55°C to +125°C
Temperature Characteristic	0 ±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 MΩ min. or 1000 MΩ - µF min., whichever is less
Insulation Resistance (+125°C, at 500 VDC)	10K MΩ min. or 100 MΩ - µF min., whichever is less
Dielectric Strength	Minimum 120% rated voltage for 5 seconds at 50 mA max. current

HIGH VOLTAGE C0G CAPACITANCE VALUES

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

X7R Dielectric

Performance Characteristics

Capacitance Range	100 pF to 0.56 µF (25°C, 1.0 ±0.2 Vrms at 1kHz)
Capacitance Tolerances	±10%; ±20%; +80%, -20%
Dissipation Factor	2.5% max. (+25°C, 1.0 ±0.2 Vrms, 1kHz)
Operating Temperature Range	-55°C to +125°C
Temperature Characteristic	±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 MΩ min. or 1000 MΩ - µF min., whichever is less
Insulation Resistance (+125°C, at 500 VDC)	10K MΩ min. or 100 MΩ - µF 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. max.	0.010 µF 0.270 µF	0.010 µF 0.330 µF	0.010 µF 0.560 µF
1000	min. max.	1000 pF 0.100 µF	1000 pF 0.150 µF	0.010 µF 0.220 µF
1500	min. max.	1000 pF 0.056 µF	1000 pF 0.068 µF	1000 pF 0.100 µF
2000	min. max.	100 pF 0.022 µF	1000 pF 0.033 µF	1000 pF 0.027 µF
2500	min. max.	100 pF 0.015 µF	100 pF 0.022 µF	1000 pF 0.022 µF
3000	min. max.	100 pF 0.010 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