

High Voltage MLC Leaded Chips

For 600V to 5000V Applications

C0G 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 C0G CAPACITANCE VALUES

VOLTAGE	1825	2225	3640
600/630 min. max.	1000 pF 0.012 μ F	1000 pF 0.018 μ F	1000 pF 0.047 μ F
1000 min. max.	100 pF 8200 pF	1000 pF 0.010 μ F	1000 pF 0.022 μ F
1500 min. max.	100 pF 4700 pF	100 pF 5600 pF	100 pF 0.010 μ F
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 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. max.	0.010 μ F 0.270 μ F	0.010 μ F 0.330 μ F	0.010 μ F 0.560 μ F
1000 min. max.	1000 pF 0.100 μ F	1000 pF 0.150 μ F	0.010 μ F 0.220 μ F
1500 min. max.	1000 pF 0.056 μ F	1000 pF 0.068 μ F	1000 pF 0.100 μ F
2000 min. max.	100 pF 0.022 μ F	1000 pF 0.033 μ F	1000 pF 0.027 μ F
2500 min. max.	100 pF 0.015 μ F	100 pF 0.022 μ F	1000 pF 0.022 μ F
3000 min. max.	100 pF 0.010 μ F	100 pF 0.015 μ F	1000 pF 0.018 μ F
4000 min. max.	— —	— —	100 pF 6800 pF
5000 min. max.	— —	— —	100 pF 3300 pF