

MXR 11

High Capacitance X7R Multilayer Capacitors

Features

- Capacitance Range: 510pF to 0.01 μ F
- Operating Temperature Range: -55°C to +125°C
- Rated Voltage: 50V
- High Permittivity Low Loss Dielectric
- X7R Temp Characteristics
- Low ERS/ESL
- Low Loss



Applications

Typical Functional Applications: bypass, coupling, dc blocking and in switch mode power supplies and other high power circuits.

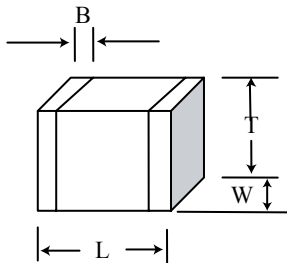
AFM Part Number Code

M Product Series: M: High Frequency	X Dielectrics: X: X7R	R Product Type: R: Chip	11 Chip Size: 11: 0505	W Termination Code: C: Pd/Ag Term G: Ag Term, Ni/Au Plated N: Non Magnetic Term (Ag Term, Cu/Sn Plated) P: Solder Dipped W Term in 60/40 Sn/Pb T: Ag Term, Ni/100% Sn Plated (Pb Free) W: Ag Term, Ni Barrier, 90/10 Sn/Pb Plated	101 Capacitance Code: 1st two digits are significant: Third digit denotes number of zero(s); R=Decimal point 2R0=2.0pF 101=100pF	K Tolerance: K: \pm 10% M: \pm 20% N: \pm 30%	B Voltage: B: 50Vdc	C Test Code: C: Commercial Test M: Hi-Rel S: Special (Customer Defined)	B Marking: B: Not Marked M: Marked (Cap code and tolerance) S: Special Marking	B Packaging: B: Bulk T: Tape & Reel W: Waffle Pack
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Chip Dimensions



Length	.057in (1.5mm)
Width	.055in (1.4mm)
Thickness	.055in (1.4mm)
Band	.015in (0.38mm)

Standard Capacitance Values

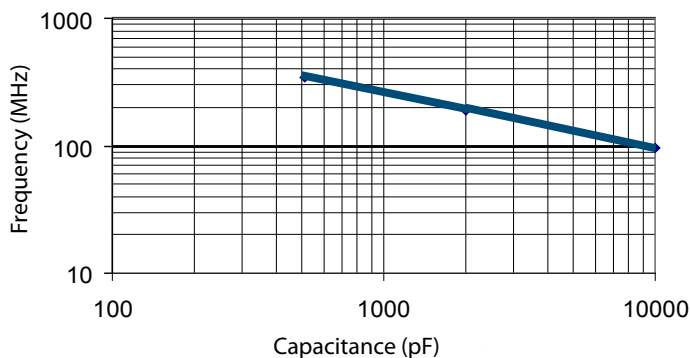
CAP Code	Cap (pF)	Tol	WVdc	CAP Code	Cap	Tol	WVdc
511	510	K, M, N	50	202	2000pF	K, M, N	50
561	560			222	2200pF		
621	620			272	2700pF		
681	680			332	3300pF		
751	750			392	3900pF		
821	820			472	4700pF		
911	910			502	5000pF		
102	1000			562	5600pF		
122	1200			682	6800pF		
152	1500			822	8200pF		
182	1800			103	0.01μF		

Specification and Performance

Piezoelectric and Aging Effect:	3% Per Decade
Temperature Range:	-55°C to +125°C
Temperature Coefficient of Capacitance:	0±15% Max
Dissipation Factor:	0.025 max at 1KHz and +25°C
Insulation Resistance (IR, at Rated Voltage):	>10 ⁴ MΩ at +25°C >10 ³ MΩ at +125°C
Dielectric Withstand Voltage (DWV):	250% of rated WVDC for 5 secs
Capacitance Drift:	±0.02% or ±0.02pF, whichever is greater
Dielectric Absorption:	≤2%

Performance Curve

Resonance vs. Capacitance



ESR vs. Capacitance

