

Functional Applications

- Improved Low Frequency Stability over Temperature
- Very Low Series Inductance
- X7R Temperature and Voltage Stability

Benefits

- Resonance Free DC Blocking to >40GHz
- Surface Mountable by Solder or Epoxy Bonding
- Available in Tape & Reel or Waffle Pack Format
- Improved Low Frequency Stability over Temperature



Opti-Cap™ Electrical Characteristics

Part Number (Includes T&R)	Capacitance/ MLC Case Size	Voltage Rating	Temperature Coefficient	IR (@+20°C, Rated Voltage)	Max DF 1kHz	Aging Rate (% per Decade Hour Max)	Term	Frequency Range 3dB pts. Typical	Max Process Temperature Recom- mended Attachment Method
P62BN820MA2636	100 nF / 0603	25 Vdc	X7R ΔC max: $\pm 15\%$ (-55°C to 125°C)	$10^2 \text{ M}\Omega$	3.0%	1.0%	Au (Flash)	16 KHz >>40 GHz	250°C/ Conductive Epoxy or Solder
P42BN820MA3152	220 nF / 0402	10 Vdc	X5R ΔC max: $\pm 15\%$ (-55°C to 85°C)	$10^2 \text{ M}\Omega$	3.5%	1.0%	Au (Flash)	16 KHz >>40 GHz	250°C/ Conductive Epoxy or Solder
P21BN300MA3976	10 nF / 0201	10Vdc	X5R ΔC max: $\pm 15\%$ (-55°C to 85°C)	$10^2 \text{ M}\Omega$	3.5%	1.0%	Au (Flash)	16 KHz >>40 GHz	250°C/ Conductive Epoxy or Solder

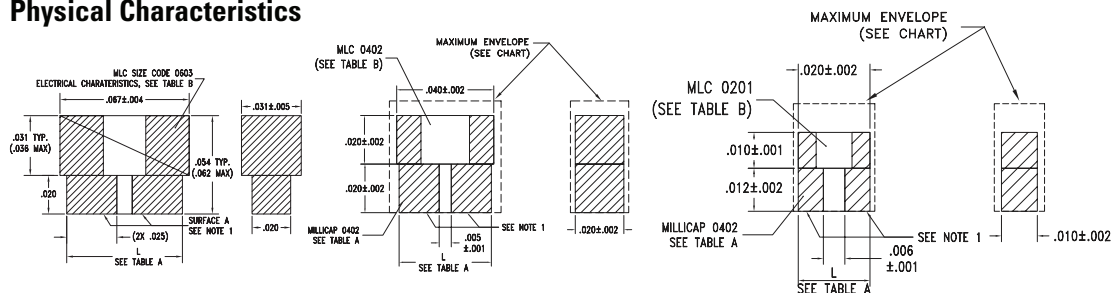
Notes:

- Termination Metalization: 7.5 ± 4.5 micro inches Au over 50 microinches Ni min.
- Maximum assembly process temperature: 250°C
- For best high frequency performance, attach surface A to transmission line. For 50 ohm system, transmission line should be near or slightly greater than 20 mils. Recommended microstrip gap length is 0.015 inch.
- Rated working voltage (WVDC) is the lesser of 25 volts (Milli.) or multilayer WVDC from Table B.
- Recommended attachment is solder or conductive epoxy.

Broadband Kit

Part Number	Freq Range
P62BN820MA2636	
P02BN820Z5S	20MHz - 40GHz
P02CG1R5C5S	8GHz - 32GHz
P02CG1R0C5S	18GHz - 40GHz
P02CF0R5B5S	28GHz - 40GHz
P02CF0R3B5S	35GHz - 50GHz
C06BL851X-1UN-X0B	2MHz - 30GHz
C08BL242X-5UN-X0B	1MHz - 20GHz

Physical Characteristics



Electrical Characteristics

