

### 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 3dB pts. Typical	Max Process Temperature Recommended Attachment Method
P62BN820MA2636	100 nF / 0603	25 Vdc	X7R ΔC max: ±15% (-55°C to 125°C)	10 <sup>2</sup> MΩ	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: ±15% (-55°C to 85°C)	10 <sup>2</sup> MΩ	3.5%	1.0%	Au (Flash)	16 KHz >>40 GHz	250°C/ Conductive Epoxy or Solder
P21BN300MA3976	10 nF / 0201	10Vdc	X5R ΔC max: ±15% (-55°C to 85°C)	10 <sup>2</sup> MΩ	3.5%	1.0%	Au (Flash)	16 KHz >>40 GHz	250°C/ Conductive Epoxy or Solder

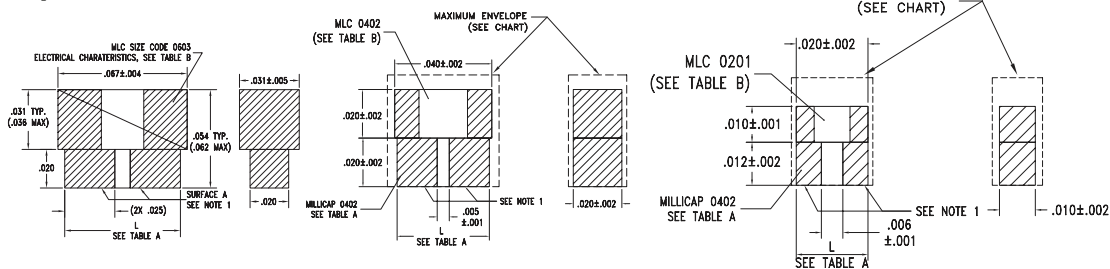
#### Notes:

1. Termination Metalization: 7.5 ± 4.5 micro inches Au over 50 microinches Ni min.
2. Maximum assembly process temperature: 250°C
3. 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.
4. Rated working voltage (WVDC) is the lesser of 25 volts (Milli.) or multilayer WVDC from Table B.
5. 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

