

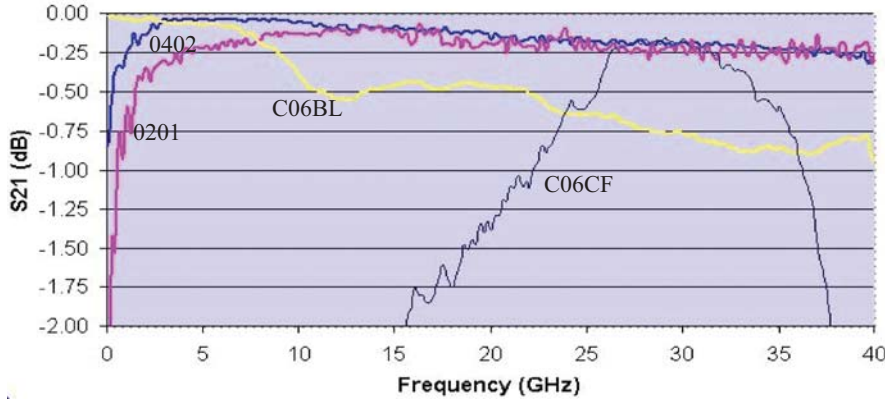
### Functional Applications

0201, 0402, 0502, 0602 Footprints  
 Very Low Series Inductance  
 Ultra High Series Resonance  
 Low Loss, High Q

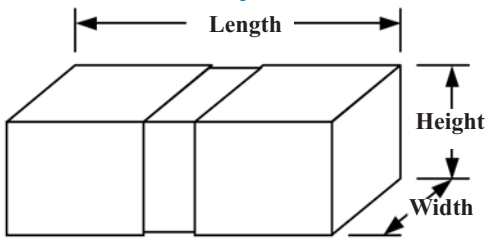
### Benefits

Matches typical 50 Ohm Line Widths  
 Preserves Board Space  
 Behaves Like An Ideal Capacitor  
 More Usable Bandwidth

### Insertion Loss Comparison of DLI Broadband Blocks vs Milli-Cap®



- ◆ 0402 MilliCap® wide-band, very low loss, no resonances
- ◆ 0201 MilliCap® wide-band, very low loss, no resonances
- ◆ C06BL 850pF capacitor
- ◆ C06CF 0.2pF Hi Q material



- Terminations : Gold
- Assembly temperatures not to exceed 260°C.
- Ideal for Test Equipment, Photonics, SONET, Digital radios, and Matching Filter applications

#### Dimension Key

- P21=0201
- P42=0402
- P02=0502
- P62=0602

| Part Characteristics |        |                |  |                            |  |                       |                 |
|----------------------|--------|----------------|--|----------------------------|--|-----------------------|-----------------|
| Part Number          | Cap.   | Voltage Rating | Temperature Coefficient -55°C to 125°C | Maximum Dissipation Factor | Insulation Resistance (MΩ Minimum)         | Aging Rate            | Frequency Range |
| P_BN820Z5ST          | 82 pF  | 50 V dc        | ± 10%                                  | 3.0% @ 1MHz, 25°C          | 10 <sup>5</sup> MΩ @ 25°C at rated voltage | <=1.5% / decade hours | 20MHz-40GHz     |
| P_NR3R0K5ST          | 3.0 pF |                | N1500 ±500PPM / °C                     | 0.25% @ 1MHz, 25°C         |  |                       | 4-20GHz         |
| P_CG1R5C5ST          | 1.5 pF |                | 0 ± 30PPM                              | 0.7% @ 1KHz, 25°C          | 10 <sup>5</sup> MΩ @ 25°C at rated voltage | N / A*                | 8-32GHz         |
| P_CG1R0C5ST          | 1.0 pF |                |  |                            |  |                       | 18-40GHz        |
| P_CD0R7B5ST          | 0.7 pF |                | N20 ±15PPM / °C                        | 0.15% @ 1MHz, 25°C         | 20-46GHz                                   |                       |                 |
| P_CF0R5B5ST          | 0.5 pF |                | 0 ±15PPM / °C                          | 0.6% @ 1MHz, 25°C          | 28-40GHz                                   |                       |                 |
| P_CF0R3B5ST          | 0.3 pF | 35-50GHz       |  |                            |  |                       |                 |

Consult Factory for custom values  
 Class 1 materials do not age

