# Milli-Cap® SMD Millimeter Wave Capacitor

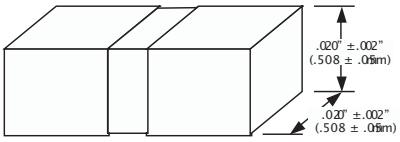
## Functional Applications

0402, 0502 and 0602 Footprints, Very Low Series Inductance, Ultra High Series Resonance, Low Loss High Q part.

## Benefits

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

## Mechanical Specification




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

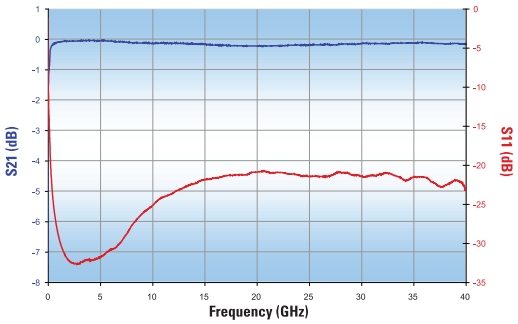
## Part Characteristics

| Part Number | Cap. | Voltage Rating | Temperature Coefficient -55°C to 125°C | Maximum Dissipation Factor | Insulation Resistance (MΩ Minimum) | Aging Rate | Frequency Range |
|---|---|---|---|---|---|---|---|
| P_2BN820Z5ST | 82 pF | 50 Vdc | ± 10% | 3.0%@ 1MHz, 25°C | $10^5$ MΩ @ 25°C at rated voltage | <=1.5%/ decade hours | 20MHz– 40GHz |
| P_2NR3R0K5ST | 3.0 pF | | N1500 ±500PPM / °C | 0.25%@ 1MHz, 25°C | $10^6$ MΩ @ 25°C at rated voltage | N / A* | 4–20GHz |
| P_2CG1R5C5ST | 1.5 pF | | 0 ± 30PPM | 0.7%@ 1KHz, 25°C | | | 8–32GHz |
| P_2CG1R0C5ST | 1.0 pF | | | | | | 18–40GHz |
| P_2CD0R7B5ST | 0.7 pF | | N20 ±15PPM / °C | 0.15%@ 1MHz, 25°C | | | 20–46GHz |
| P_2CF0R5B5ST | 0.5 pF | | 0 ±15PPM / °C | 0.6%@ MHz, 25°C | | | 28–40GHz |
| P_2CF0R3B5ST | 0.3 pF | | | | | | 35–50GHz |

Dimensions Key: P42 = 0402; P02 = 0502; P62 = 0602

## Electrical Performance

P02BN820Z5S

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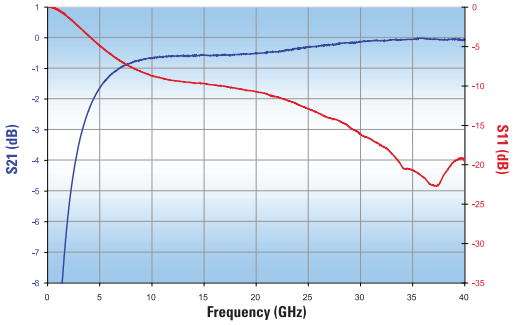


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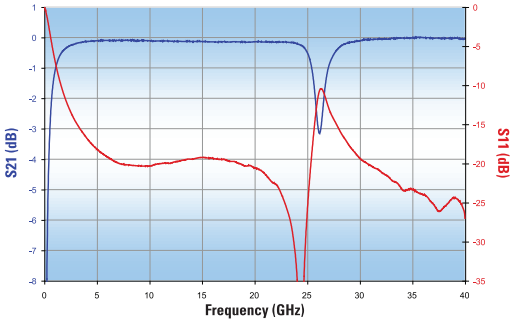
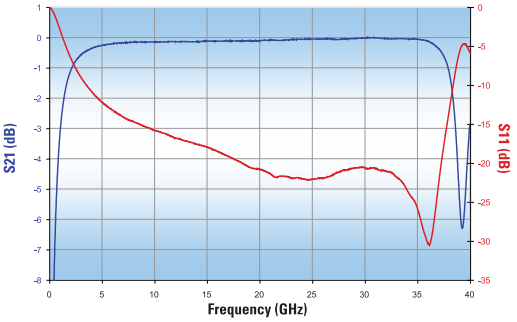



P02CG1R5C5




The information above represents typical device performance.