# ATC 530Z Broadband Multilayer Capacitors

#### **Features:**

- EIA 0201 Case Size
- Operating Frequency
  16 KHz to 20 GHz
- Insertion Loss: 0.4 dB typ.
- Low Loss X5R Dielectric
- RoHS Compliant Terminations
- Solderable SMT Terminations

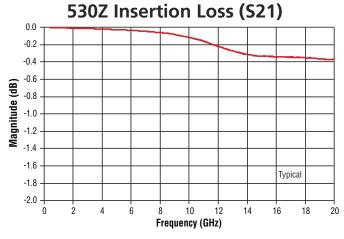
ATC's new 530Z Series Multilayer Broadband Capacitor provides low insertion loss performance over multiple octaves of frequency spectrum. The 530Z capacitor is compatible with high speed automated pick and place SMT manufacturing.

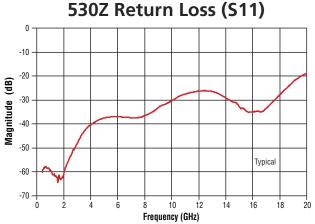
The 530Z is ideal for broadband DC blocking, coupling, bypassing, and feedback applications in optical communications systems and equipment using high-speed digital logic.



### **Advantages:**

- Broadband Performance
- Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss through 20 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Ceramic Construction





#### ATC 530Z Data Sheet Test Condition Description

All testing performed on 10-mil-thick Rogers RO4350 microstrip board, with the UUT subtending a 24 mil gap in a 22-mil-wide center trace (nominal 50-ohm characteristic impedance). Measurements were made using an Anritsu 3680K Universal Test Fixture and an HP8722D Vector Network Analyzer having a four-receiver architecture. Measurements have been de-embedded to the edges of the UUT using a standard TRL calibration procedure.



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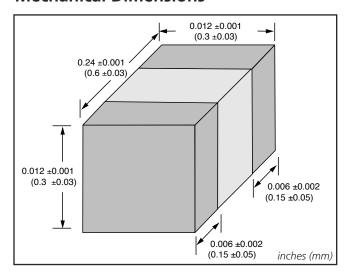
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### **Electrical Specifications:**

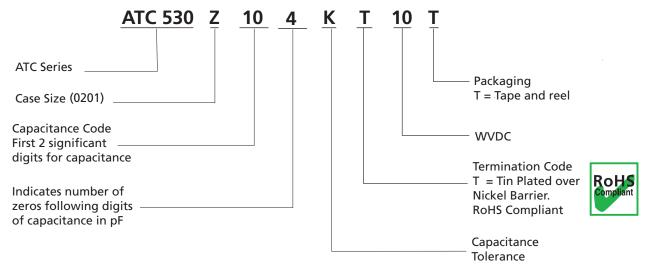
- Capacitance: 100 nF
- Rated Voltage: 10 WVDC
- Dielectric Withstanding Voltage (DWV): 250% of rated WVDC for 5 secs.
- Operating Temperature Range: -55°C to +85°C
- Temperature Coefficient of Capacitance (TCC): ±15% (-55°C to +85°C)
- Maximum DF: 5% @ 1KHz
- Insulation Resistance:

10<sup>8</sup>  $\Omega$  min. @ +25°C @ rated WVDC 10<sup>7</sup>  $\Omega$  min. @ +85°C @ rated WVDC

### **Mechanical Dimensions**



### **ATC 530 Series Part Number Code**



The above part number refers to a 530 Series (case size Z) 100 nF capacitor, K tolerance (±10%), with T termination (tin plated over nickel barrier, RoHS compliant), 10 WVDC, tape and reel packaging.

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