

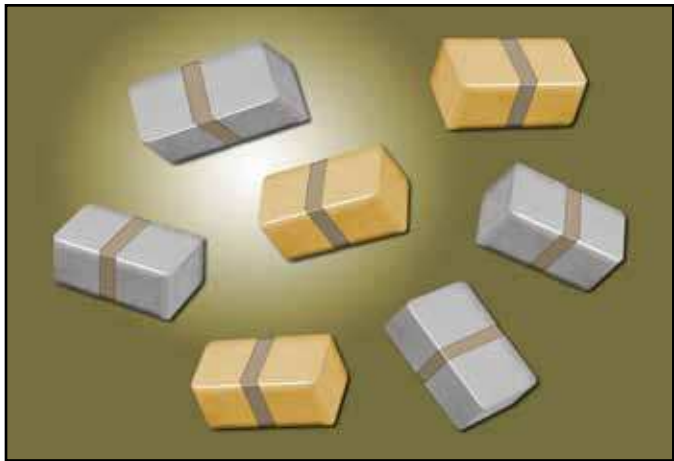
ATC 550Z Series UBC™ Ultra-Broadband Capacitor

Features:

- EIA 0201 Case Size
- Capacitance: 10 nF min.
- Operating Frequency: 160 KHz (-3 dB roll-off) to 40+ GHz*
- Insertion Loss: < 0.4 dB typical
- Orientation Insensitive
- One Piece Construction
- Voltage Rating: 10 WVDC**
- RoHS Compliant Terminations
- Gold Terminations Available

ATC's new 550Z Ultra-Broadband Capacitor is manufactured with highest quality materials to provide reliable and repeatable Ultra-Broadband performance from 160 KHz through 40+ GHz. It exhibits ultra-low insertion loss, flat frequency response and excellent return loss, and is ideal for D.C. Blocking, Coupling, Bypassing and Feedback applications requiring Ultra-Broadband performance.

The 550Z is a one-piece orientation-insensitive 0201 SMT package, fully compatible with high speed automated pick-and-place manufacturing. It is designed to meet the most stringent requirements of Ultra-Broadband applications.



Advantages:

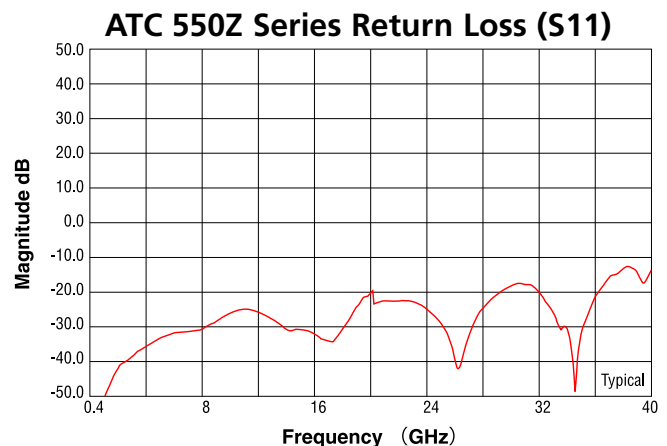
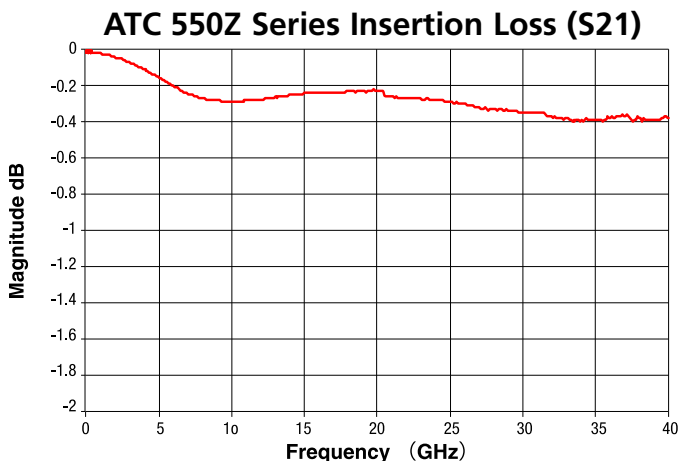
- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss
- Unit-to-Unit Performance Repeatability
- Rugged Ceramic Construction

* 25 °C, no bias applied
** Operating temperature dependent

Applications:

- Optoelectronics/ High Speed Data
- Transimpedance amplifiers
- ROSA/TOSA†
- SONENT††
- Broadband Test Equipment
- Broadband Microwave/ millimeter-wave

† Receive and Transmit Optical Sub-Assembly
†† Synchronous Optical Network



ATC 550Z Data Sheet Test Condition Description

All testing performed on 10-mil-thick Rogers R03006 microstrip board, with the device under test subtending a 10 mil gap in a 13.4-mil-wide center trace (nominal 50-ohm characteristic impedance).



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com



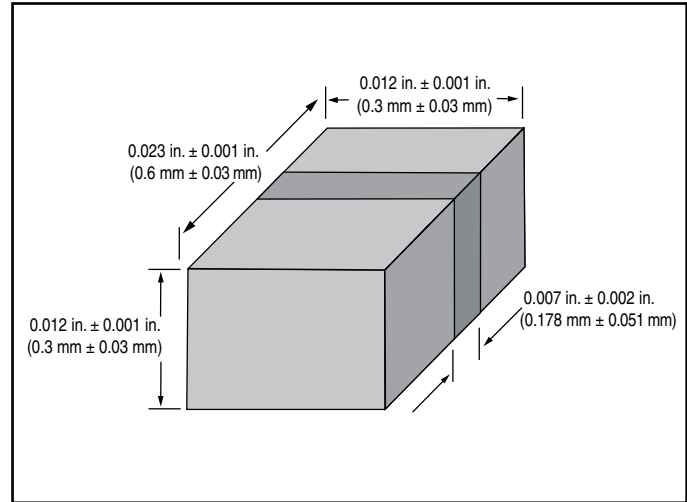
www.atceramics.com

ATC 550Z SERIES UBC™ CAPACITORS

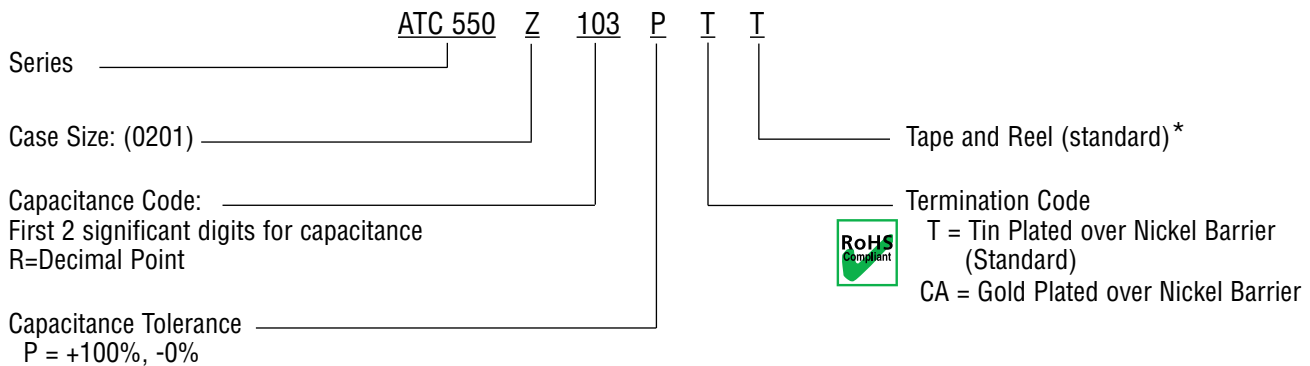
Electrical Specifications:

- Capacitance: 10 nF min.
- Rated Voltages:
6.3 WVDC from -55°C to +125°C
10 WVDC from -55°C to +85°C
- Dielectric Withstanding Voltage (DWV):
250% of rated WVDC for 5 secs.
- Operating Temperature Range:
-55°C to +125°C
- Temperature Coefficient of Capacitance (TCC):
±22% (-55°C to +125°C)
±15% (-55°C to +85°C)
- Maximum DF: 5% @ 1KHz
- Insulation Resistance:
10⁸ Ω min. @ +25°C @ rated WVDC
10⁷ Ω min. @ +125°C @ rated WVDC

Mechanical Dimensions



ATC PART NUMBER CODE



*1000 pieces on 7" reel. Consult factory for other quantities.

The above part number refers to a 550 Series (case size Z) 10 nF capacitor, P tolerance, with T termination (Tin Plated over Nickel Barrier), tape and reel packaging.

For other terminations please consult factory.

ATC accepts orders for our parts using designations **with** or **without** the "ATC" prefix. Both methods of defining the part number are equivalent, i.e., part numbers referenced with the "ATC" prefix are interchangeable to parts referenced without the "ATC" prefix. Customers are free to use either in specifying or procuring parts from American Technical Ceramics.

For additional information and catalogs contact your ATC representative or call direct at (+1-631) 622-4700.

Consult factory for additional performance data.

Sales of ATC products are subject to the terms and conditions contained in American Technical Ceramics Corp. Terms and Conditions of Sale (ATC document #001-992 Rev. A 10/03). Copies of these terms and conditions will be provided upon request. They may also be viewed on ATC's website at www.atceramics.com/productfinder/default.asp. Click on the link for Terms and Conditions of Sale.

ATC has made every effort to have this information as accurate as possible. However, no responsibility is assumed by ATC for its use, nor for any infringements of rights of third parties which may result from its use. ATC reserves the right to revise the content or modify its product line without prior notice.

© 2009 American Technical Ceramics Corp. All Rights Reserved.

ATC # 001-1086 Rev. C; 1/14



A M E R I C A N

ATC North America
sales@atceramics.com

T E C H N I C A L

ATC Europe
sales@atceramics.com

C E R A M I C S

ATC Asia
sales@atceramics-asia.com



ISO 9001 REGISTERED

www.atceramics.com