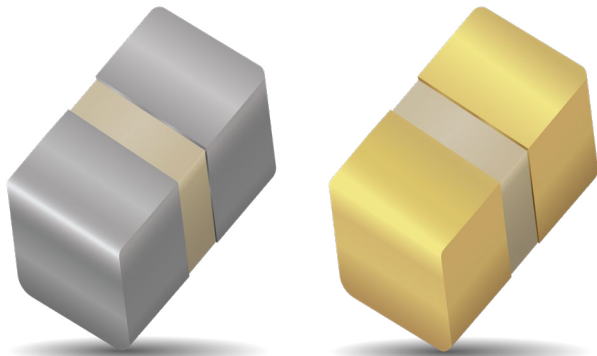


RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

550L Series UBC™ Ultra-Broadband Capacitor



GENERAL DESCRIPTION

AVX's new 550L Ultra-Broadband Capacitor is manufactured with highest quality materials to provide reliable and repeatable Ultra-Broadband performance from 16 KHz through 70+ 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 550L is a one-piece orientation-insensitive 0402 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

TYPICAL CIRCUIT APPLICATIONS

- Optoelectronics/High Speed Data
- Transimpedance amplifiers
- Receive and Transmit Optical Sub-Assembly (ROSA/TOSA)
- Synchronous Optical Network (SONET)
- Broadband test equipment
- Broadband Microwave/Millimeter Wave

FEATURES

- 0402 Case Size
- Capacitance: 100 nF
- Operating Frequency: 16 KHz (-3 dB roll-off) to 70+ GHz*
- Insertion Loss: <0.5 dB typical
- Orientation-insensitive
- One Piece Construction
- Voltage Rating: 16 WVDC**
- RoHS Compliant Terminations
- Gold Termination Available

* 25°C, no bias applied

** Operating Temperature Dependent

ELECTRICAL SPECIFICATIONS

Capacitance	100 nF
Rated Voltage	16 WVDC from -55°C to +85°C 10 WVDC from -55°C to +125°C
Dielectric Withstanding Voltage	250% of rated WVDC for 5 secs.
Operating Temperature Range	-55°C to +125°C
Temperature Coefficient of Capacitance	±15% (-55°C to +85°C), 16 WVDC ±22% (-55°C to +125°C), 10 WVDC
Insulation Resistance	10 ⁸ Ω min. @ +25°C @ rated WVDC 10 ⁷ Ω min. @ +125°C @ rated WVDC

PACKAGING OPTIONS

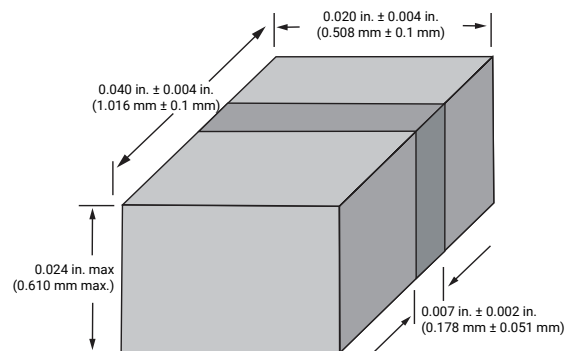


Tape & Reel



RoHS
COMPLIANT

MECHANICAL DIMENSIONS



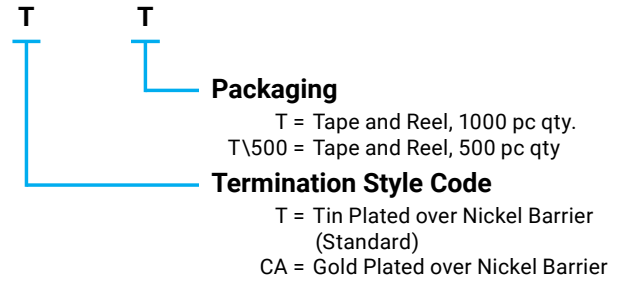
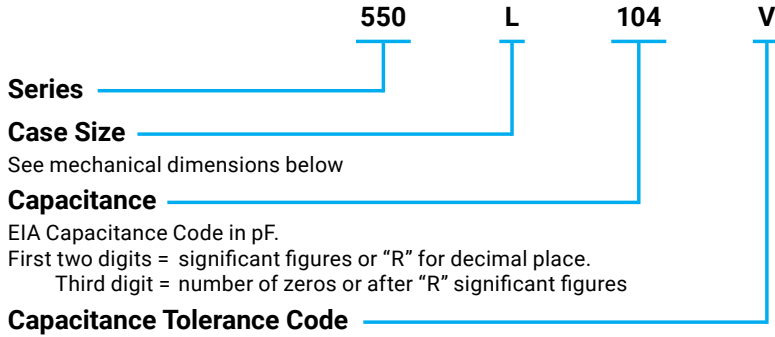
RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

550L Series UBC™ Ultra-Broadband Capacitor



HOW TO ORDER

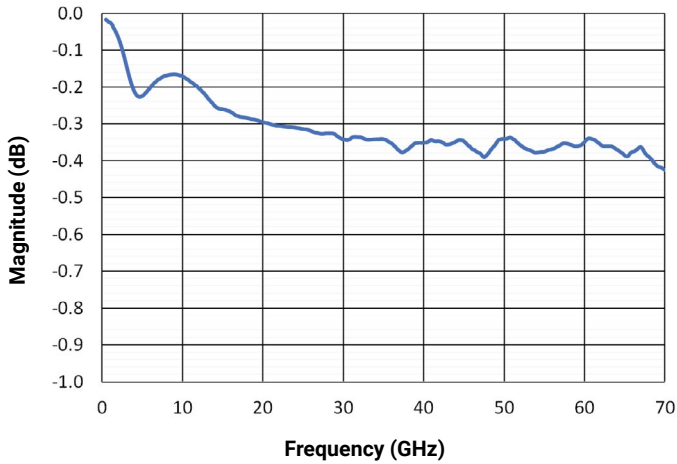


Code	K	V
Tol.	±10%	+ 20% -10%

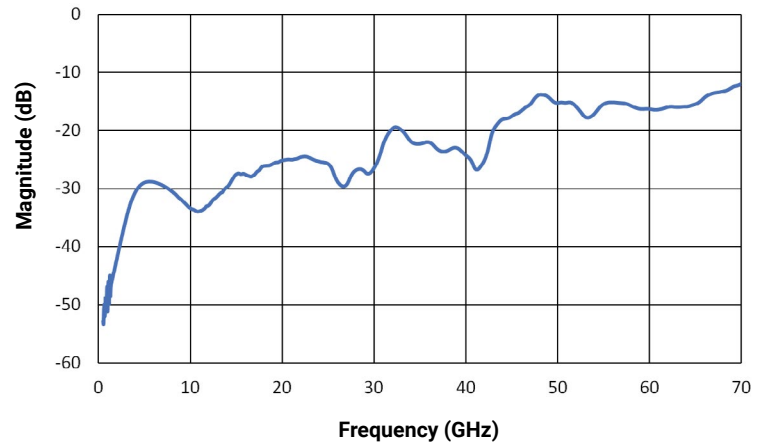
The above part number refers to a 550 Series (case size L) 100 nF capacitor, V Tolerance (+ 20% -10%), with T termination (Tin Plated over Nickel Barrier), tape and reel packaging.

PERFORMANCE DATA

550L Series Insertion Loss (S21)



550L Series Return Loss (S11)



AVX 550L Data Sheet Condition Description

The S-Parameter test was performed on Rogers RO4350B 10-mil thick substrate with a nominal impedance of 50 ohms. the board has a 10-mil gap at the center of a 22-mil wide ½ oz copper microstrip trace

