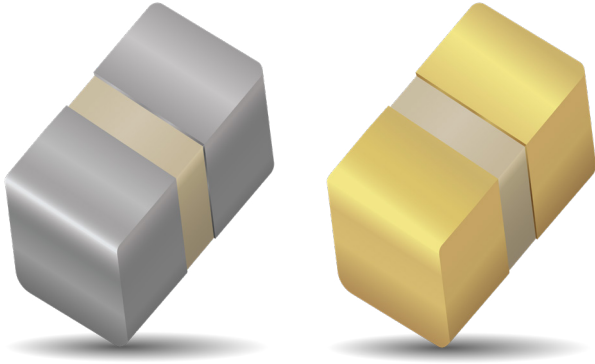


# RF/Microwave Capacitors

## RF/Microwave Multilayer Capacitors (MLC)

### 560L Series UBC™ Ultra-Broadband Capacitor



## GENERAL DESCRIPTION

AVX's new 560L Ultra-Broadband Capacitor is manufactured with highest quality materials to provide reliable and repeatable Ultra-Broadband performance from 16 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 560L 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

\* 25°C, no bias applied

\*\* Operating Temperature dependent

## TYPICAL CIRCUIT APPLICATIONS

- Optoelectronics/High Speed Data
- Transimpedance Amplifiers
- (ROSA/TOSA)†
- (SONET)††
- Broadband Test Equipment
- Broadband Microwave/Millimeter Wave

† Receive and Transmit Optical Sub-Assembly

†† Synchronous Optical Network

## FEATURES

- EIA 0402 Case Size
- Capacitance: 100 nF
- Operating Frequency: 16 KHz (-3 dB roll-off) to 40+ GHz\*
- Insertion Loss: < 0.6 dB typical
- Orientation Insensitive
- One Piece Construction
- Voltage Rating: 16 WVDC\*\*
- RoHS Compliant Terminations
- Gold Terminations Available

## ELECTRICAL SPECIFICATIONS

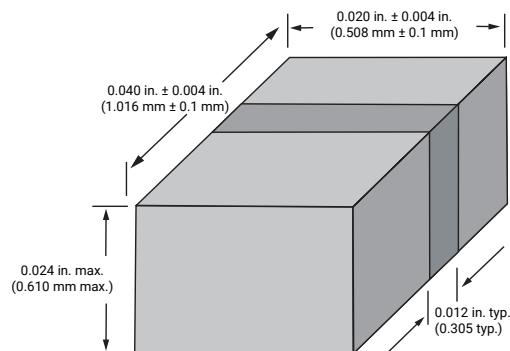
<b>Capacitance</b>	100 nF min.
<b>Rated Voltage</b>	16 WVDC from -55°C to +85°C 10 WVDC from -55°C to +125°C
<b>Dielectric Withstanding Voltage (DWV)</b>	250% of rated WVDC for 5 secs.
<b>Operating Temperature Range</b>	-55°C to +125°C
<b>Temperature Coefficient of Capacitance (TCC)</b>	±15% (-55°C to +85°C) ±22% (>85°C to +125°C)
<b>Insulation Resistance</b>	10 <sup>10</sup> Ω min. @ +25°C @ rated WVDC 10 <sup>9</sup> Ω min. @ +125°C @ rated WVDC

## PACKAGING OPTIONS



Tape & Reel

## MECHANICAL DIMENSIONS



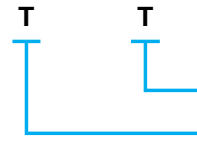
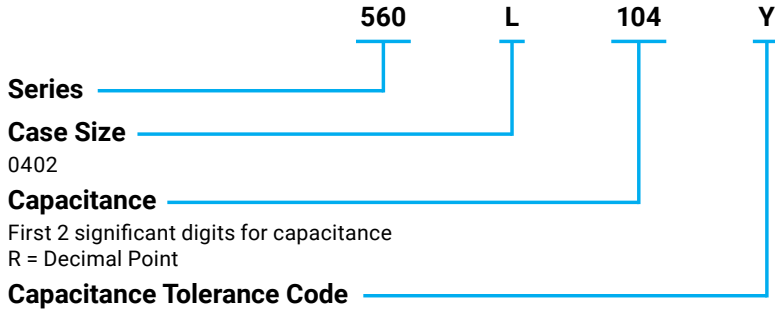
# RF/Microwave Capacitors

## RF/Microwave Multilayer Capacitors (MLC)

### 560L Series UBC™ Ultra-Broadband Capacitor



#### HOW TO ORDER



Tape and Reel (standard)\*

Termination Code

- T = Tin Plated over Nickel Barrier (Standard)
- CA = Gold Plated over Nickel Barrier

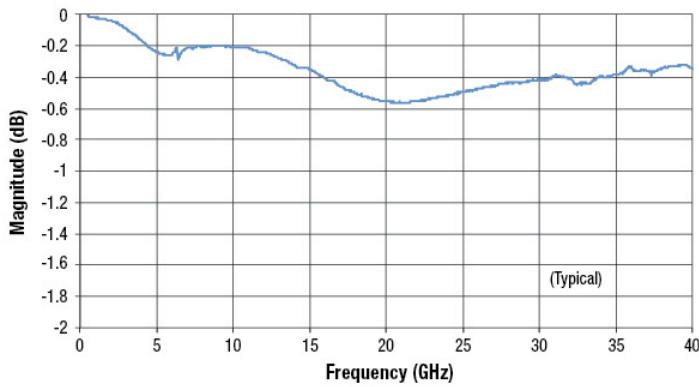


Code	Y
Tol.	+25%, -20%

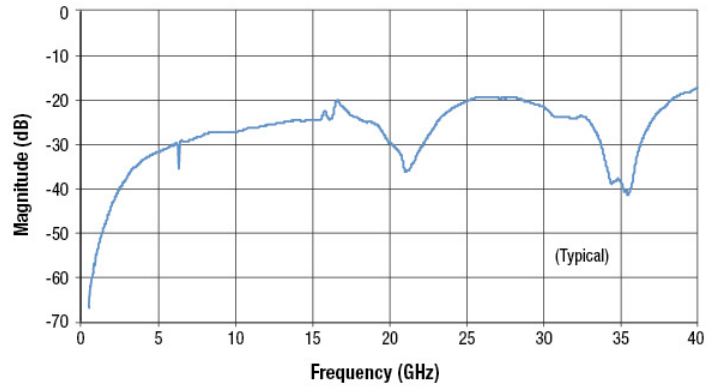
\*500, 1000, 4000 pieces on 7" reel  
 The above part number refers to a 560 Series (case size L) 100 nF capacitor, Y tolerance (+25%, -20%), with T termination (Tin Plated over Nickel Barrier), tape and reel packaging.

#### PERFORMANCE DATA

AVX 560L Series Insertion Loss (S21)



AVX 560L Series Return Loss (S11)



#### AVX 560L Data Sheet Test Condition Description

All testing performed on 10-mil-thick Rogers RO4350 microstrip board, with the device under test subtending a 24 mil gap in a 22-mil-wide center trace (nominal 50-ohm characteristic impedance).



The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at [www.avx.com/disclaimer/](http://www.avx.com/disclaimer/) by reference and should be reviewed in full before placing any order.