RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

530L Series Broadband Multilayer Capacitors





UBL TECHNOLOGY

KYOCERA AVX's new 530L Series Multilayer Broadband Capacitor provides low insertion loss performance over multiple octaves of frequency spectrum. The 530L capacitor is compatible with high speed automated pick and place SMT manufacturing. The 530L is ideal for broadband DC blocking, coupling, bypassing, and feedback applications in optical communications systems and equipment using high-speed digital.

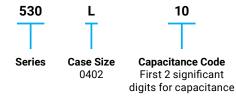
FEATURES

- EIA 0402 Case Size
- Operating Frequency 16 KHz to 18 GHz
- Insertion Loss: 1 dB max.
- Low Loss X7R Dielectric
- **RoHS Compliant Terminations**
- Solderable SMT Terminations

ADVANTAGES

- **Broadband Performance**
- Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss through 18 GHz
- Unit-to-Unit Performance
- Repeatability
- Rugged Ceramic Construction

HOW TO ORDER

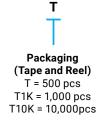










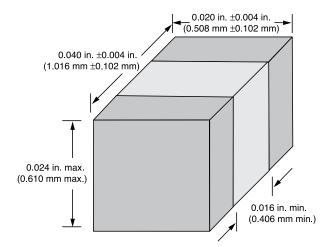






The above part number refers to a 530 Series (case size L) 100 nF capacitor, K tolerance (±10%), with T termination (tin plated over nickel barrier, RoHS compliant), 16 WVDC, tape and reel packaging.

DIMENSIONS



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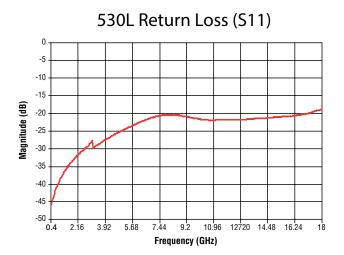


ELECTRICAL SPECIFICATIONS

Capacitance	100 nF
Rated Voltage	16 WVDC
Dielectric Withstanding Voltage (DWV)	250% of rated WVDC for 5 secs.
Operating Temperature Range	-55°C to +125°C
Temperature Coefficient of Capacitance (TCC)	±15% (-55°C to +125°C)
Maximum DF	10% @ 1KHz
Insulation Resistance	10° Ω min. @ +25°C @ rated WVDC 10 ⁷ Ω min. @ +125°C @ rated WVDC

PERFORMANCE DATA

530L Insertion Loss (S21) 0.5 -0.5 -1 -1.5 Magnitude (dB) -3 -3.5 -4 9.2 10.96 12.72 14.48 16.24 Frequency (GHz)



530L 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.