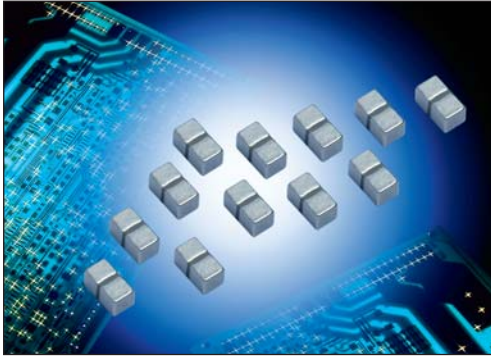


GX Series



Ultra Broad Band Capacitor



ADVANTAGES

- Ultra-Broadband performance
- Ultra-Low Insertion Loss
- X7R Characteristics
- Excellent Return Loss

APPLICATIONS

- Semi-Conductor Data Communications Customers
- Receiver Optical Sub-Assemblies
- Transimpedance Amplifier Customers
- Test Equipment Manufactures

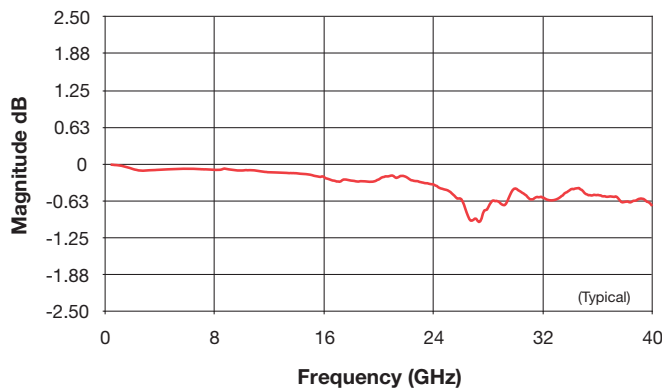
The GX03 Series was developed specifically to address DC Blocking issues from ~16KHz (-3dB roll-off) to 40GHz in applications requiring higher voltages than available in our other Broadband offerings. Rated at 50VDC from -55°C to +125°C with X7R TCC, GX03 products exhibit low insertion loss & excellent return loss. Using AVX's patented precision thin film termination process, the part is designed to be completely orientation insensitive with a standard EIA 0603 footprint to minimize board space requirements.

Ni-Sn and Ni-Au terminations are available to cover a wide range of attachment processes. All GX parts are RoHS compliant.

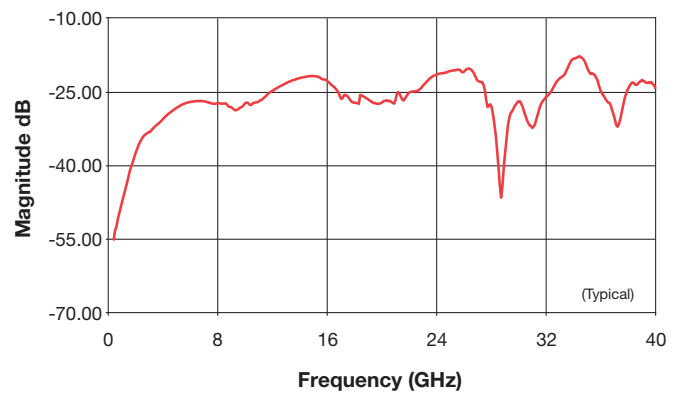
Au terminated units are wire bondable. Users may, therefore, find these devices useful in bypass applications when wire bonding is a necessary part of the manufacturing process.

More information can be obtained by contacting the factory or your local AVX representative.

GX03 Series – Insertion Loss (S21)



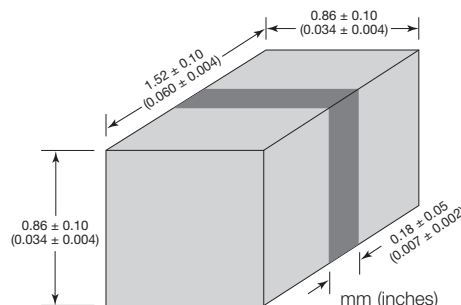
GX03 Series – Return Loss (S11)



Test Parameters:

Testing to 40GHz performed on Rogers R04350 microstrip board (T = 10 mils); Trace width = 22 mils; Gap = 24 mils; 50 ohm (nominal) characteristic impedance. Modelithics model developed through testing on several different substrates including Alumina (T = 5 mils) measured through 65GHz. The modeled results presented for R04350 were for a pad width = 20 mils and a gap = 16 mils.

MECHANICAL SPECIFICATIONS



GX Series



Ultra Broad Band Capacitor

ELECTRICAL SPECIFICATIONS

Capacitance	0.1 $\mu\text{F} \pm 20\%$
Voltage Rating/Operating Temperature	50 VDC @ 125°C
Dielectric Withstanding Voltage	250% WVDC
Insulation Resistance	10,000 Meg Ohms @ 25°C; 1,000 Meg Ohms @ 125°C
Temperature Coefficient	X7R ($\pm 15\%$)

HOW TO ORDER

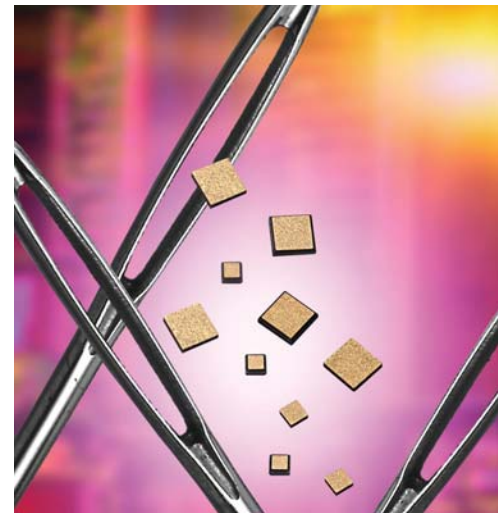
GX	03	5C	104	M	A	T	2
Style	Case Size 03 = 0603	Voltage/Dielectric 5C = 50Vdc/X7R	Capacitance 104 = 0.1 μF EIA Cap Code in pF	Tolerance M = $\pm 20\%$	Failure Rate A = Std	Termination T = Ni-Sn (Standard) 7 = Ni-Au	Packaging 2 = 4000 pcs, 7" T&R 2-500 = 500 pcs, 7" T&R 2-1000 = 1000 pcs, 7" T&R

■ = Under Development

ADDITIONAL MICROWAVE PRODUCTS

AVX also manufactures a broad range of SLC (Single Layer Ceramic) products utilizing high k GBL dielectrics especially suitable for space constrained broadband bypass/decoupling applications. A variety of voltage ratings are available and all dielectrics are suitable for operation from -55°C to +125°C. All SLC products are RoHS compliant.

Style	GH/GB01/06	GH/GB01/06	GH/GB01/06	GH10-55	
Dielectric	Z	Maxi	Maxi+	Ultra Maxi	
k	2.5K-18K	20K	30K	60K	
TC	X7S	X7R	X7R	X7R	
Cap Range	20-4700pF	68-8200pF	330-10000pF	200-6500pF	
Rating	50/100VDC	50VDC	50VDC	25VDC	
Nom	mm sq	0.38 / 2.28	0.38 / 2.28	0.38 / 2.28	0.25 / 1.40
Sizes	inches sq	0.015 / 0.090	0.015 / 0.090	0.015 / 0.090	0.010 / 0.055



NOTICE: Specifications are subject to change without notice. Contact your nearest AVX Sales Office for the latest specifications. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee, warranty, or responsibility of any kind, expressed or implied. Statements or suggestions concerning possible use of our products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that all safety measures are indicated or that other measures may not be required. Specifications are typical and may not apply to all applications.

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