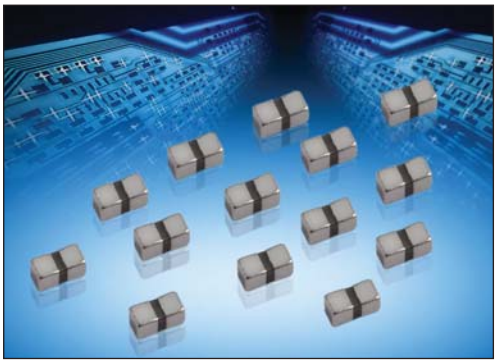
GX Series

Ultra Broad Band Capacitor



ADVANTAGES

- Ultra-Broadband performance
- Ultra-Low Insertion Loss
- X5R & X7S Characteristics
- Excellent Return Loss

APPLICATIONS

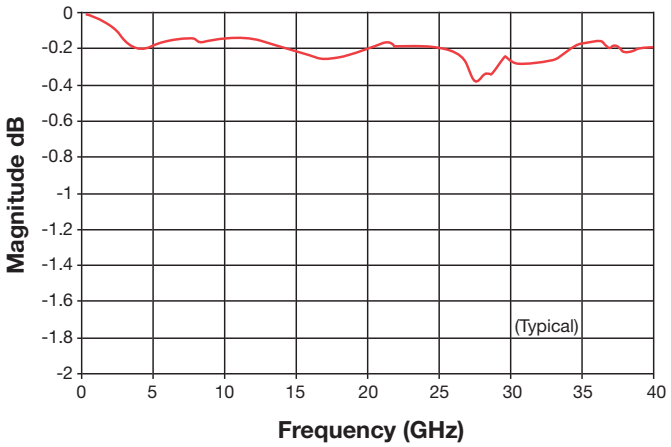
- Semi-Conductor Data Communications Customers
- Receiver Optical Sub-Assemblies
- Transimpedance Amplifier Customers
- Test Equipment Manufactures

The GX Series was developed specifically to address DC Blocking issues from ~16KHz (-3dB roll-off) to 40GHz. Most applications will experience resonance-free insertion loss of <0.5dB thru at least 40GHz. Insertion loss at higher frequencies is in part dependent on installation parameters. Using AVX's patented precision thin film termination process, the part is designed to be completely orientation insensitive with a standard EIA 0402 footprint to minimize board space requirements. Both Ni/Sn and Ni/Au terminations are available to cover a wide range of attachment processes. All GX parts are RoHS compliant.

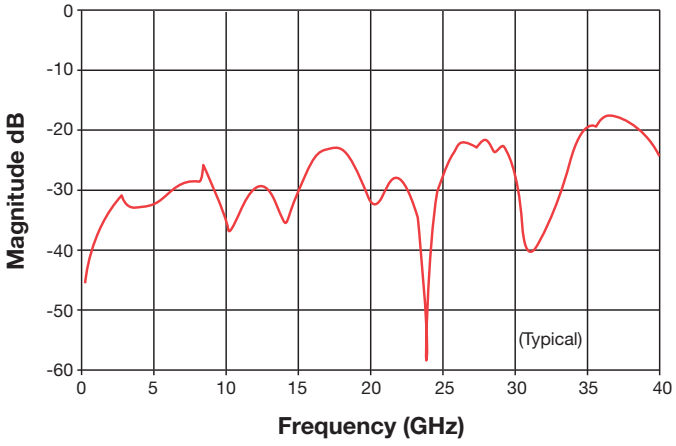
Au terminated units are wire bondable. Users may, therefore, find these devices equally useful in bypass applications when wire bonding is a necessary part of the manufacturing process.

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

GX02 Series – Insertion Loss (S21)



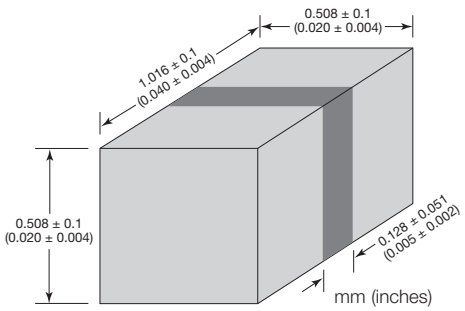
GX02 Series – Return Loss (S11)



Test Parameters:

Rogers RO4350 Board (T = 10 mils); Trace width = 22 mils; Gap = 24 mils; 50 ohm (nominal) characteristic impedance

MECHANICAL SPECIFICATIONS



GX Series

Ultra Broad Band Capacitor

ELECTRICAL SPECIFICATIONS

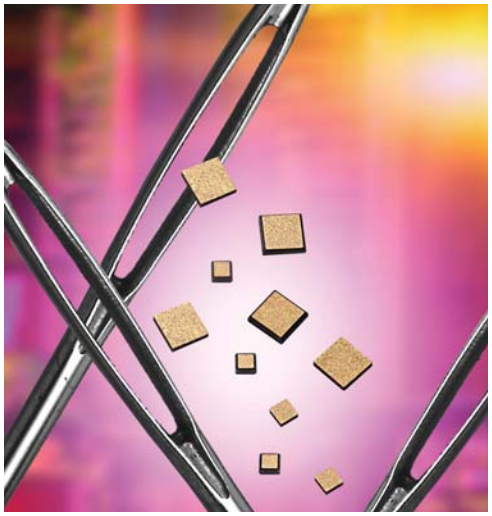
Capacitance	0.1 µF ± 10%
Voltage Rating/Operating Temperature	16 VDC @ 85°C; 10 VDC @ 125°C
Dielectric Withstanding Voltage	250% WVDC
Insulation Resistance	10,000 Meg Ohms @ 25°C; 1,000 Meg Ohms @ 125°C
Temperature Coefficient	16 VDC X5R (± 15%); 10 VDC X7S (± 22%)

HOW TO ORDER

GX	02	YD	104	K	A	T	2
Style	**Case Size** 02 = 0402	**Voltage/Dielectric** YD = 16Vdc/X5R 10Vdc/X7S	**Capacitance** 104 = 0.1µF EIA Cap Code in pF	**Tolerance** K = ±10%	**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

ADDITIONAL MICROWAVE PRODUCTS

AVX also manufactures a broad range of SLC (Single Layer Ceramic) products utilizing high k GBBL 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 -55ºC to +125ºC. 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 Sizes	mm sq	0.38 / 2.28	0.38 / 2.28	0.38 / 2.28	0.25 / 1.40
	inches sq	0.015 / 0.090	0.015 / 0.090	0.015 / 0.090	0.010 / 0.055

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