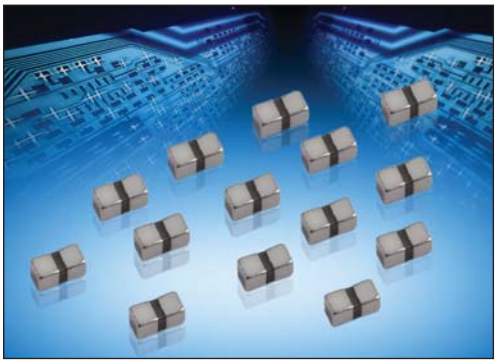
GX Series

Ultra Broad Band Capacitor



ADVANTAGES

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

APPLICATIONS

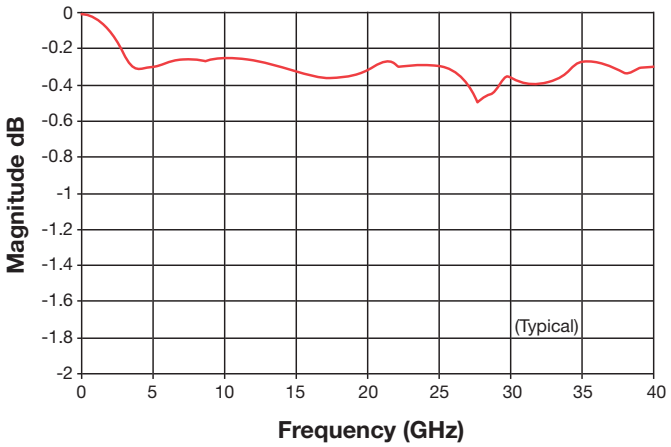
- Semi-Conductor Data Communications Customers
- Receiver Optical Sub-Assemblies
- Transimpedance Amplifier Customers
- Test Equipment Manufactures

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.

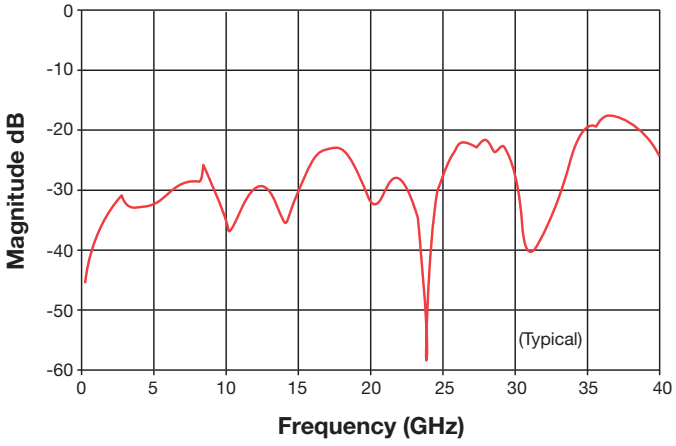
Au terminated units are wire bondable. Users may, therefore, find these devices equally useful in bypass applications when wire bonding is a necessary part of the manufacturing process.

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

GX02 Series – Insertion Loss (S21)



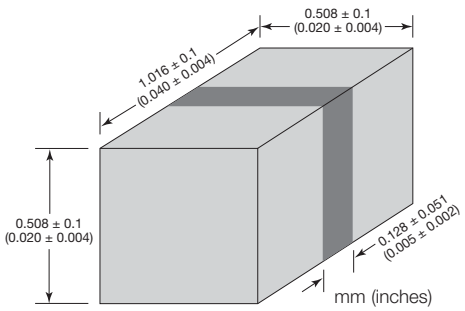
GX02 Series – Return Loss (S11)



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

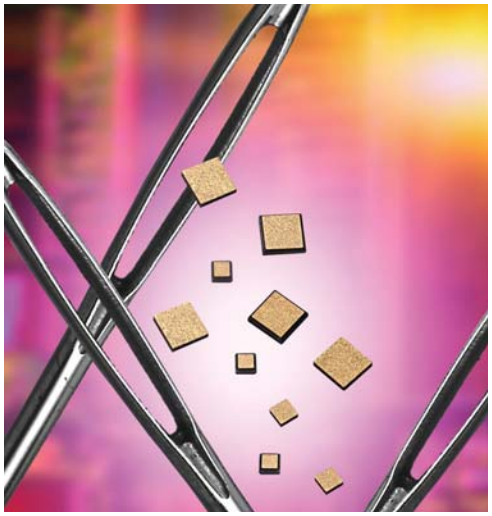
Capacitance	0.1 µF ± 10%
Voltage Rating/Operating Temperature	16 VDC @ 85°C; 10 VDC @ 125°C
Dielectric Withstanding Voltage	250% WVDC
Insulation Resistance	10,000 Meg Ohms @ 25°C; 1,000 Meg Ohms @ 125°C
Temperature Coefficient	16 VDC X5R (± 15%); 10 VDC X7S (± 22%)

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	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

AMERICAS

AVX Myrtle Beach, SC
Tel: 843-448-9411

AVX Northwest, WA
Tel: 360-699-8746

AVX Midwest, IN
Tel: 317-861-9184

AVX Mid/Pacific, CA
Tel: 408-988-4900

AVX Northeast, MA
Tel: 617-479-0345

AVX Southwest, CA
Tel: 949-859-9509

AVX Canada
Tel: 905-238-3151

AVX South America
Tel: +55-11-4688-1960

EUROPE

AVX Limited, England
Tel: +44-1252-770000

AVX S.A.S., France
Tel: +33-1-69-18-46-00

AVX GmbH, Germany
Tel: +49-8131-9004-0

AVX SRL, Italy
Tel: +39-02-614-571

AVX Czech Republic
Tel: +420-57-57-57-521

AVX/ELCO UK
Tel: +44-1638-675000

ELCO Europe GmbH
Tel: +49-2741-299-0

AVX S.A., Spain
Tel: +34-91-63-97-197

AVX Benelux
Tel: +31-187-489-337

ASIA-PACIFIC

AVX/Kyocera (S) Pte Ltd., Singapore
Tel: +65-6286-7555

AVX/Kyocera, Asia, Ltd., Hong Kong
Tel: +852-2363-3303

AVX/Kyocera Yuhan Hoesa, South Korea
Tel: +82-2785-6504

AVX/Kyocera HK Ltd., Taiwan
Tel: +886-2-2656-0258

AVX/Kyocera (M) Sdn Bhd, Malaysia
Tel: +60-4228-1190

AVX/Kyocera International Trading Co. Ltd., Shanghai
Tel: +86-21-6215-5588

AVX/Kyocera Asia Ltd., Shenzen
Tel: +86-755-3336-0615

AVX/Kyocera International Trading Co. Ltd., Beijing
Tel: +86-10-6588-3528

AVX/Kyocera India Liaison Office
Tel: +91-80-6450-0715

ASIA-KED

(KYOCERA Electronic Devices)

KED Hong Kong Ltd.
Tel: +852-2305-1080/1223

KED Hong Kong Ltd. Shenzen
Tel: +86-755-3398-9600

KED Company Ltd. Shanghai
Tel: +86-21-6217-1201

KED Hong Kong Ltd. Beijing
Tel: +86-10-5869-4655

KED Taiwan Ltd.
Tel: +886-2-2950-0268

KED Korea Yuhan Hoesa, South Korea
Tel: +82-2-783-3604/6126

KED (S) Pte Ltd. Singapore
Tel: +65-6509-0328

Kyocera Corporation Japan
Tel: +81-75-604-3449

A KYOCERA GROUP COMPANY

http://www.avx.com