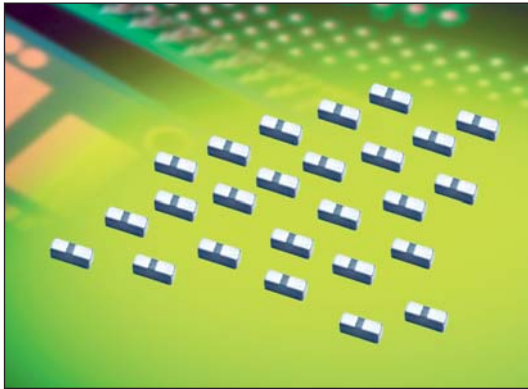


# GX0S Series



## Ultra Broad Band Capacitor



### ADVANTAGES

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

### APPLICATIONS

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

The GX0S Series was developed to address DC Blocking issues from ~16KHz (-3dB roll-off) to 40GHz and was designed specifically for mounting on strip lines with widths less than 20mils. In most applications, insertion loss (as shown below) will typically fall in the range of 0.4dB. Insertion loss at frequencies higher than 40GHz will be in part dependent on installation parameters. These devices utilize AVX's patented precision thin film termination process and are especially well suited for high volume solder assembly.

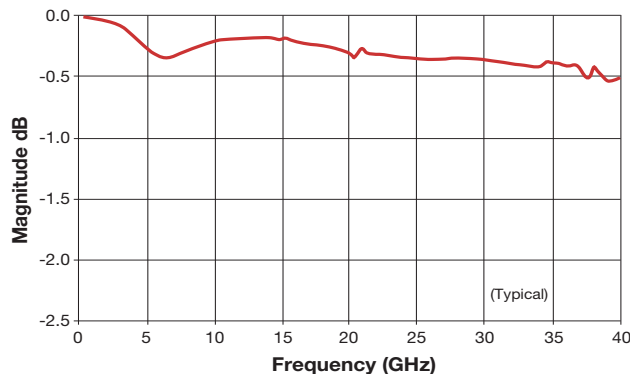
Both Ni/Sn and Ni/Au terminations are available to cover a wide range of attachment processes.

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

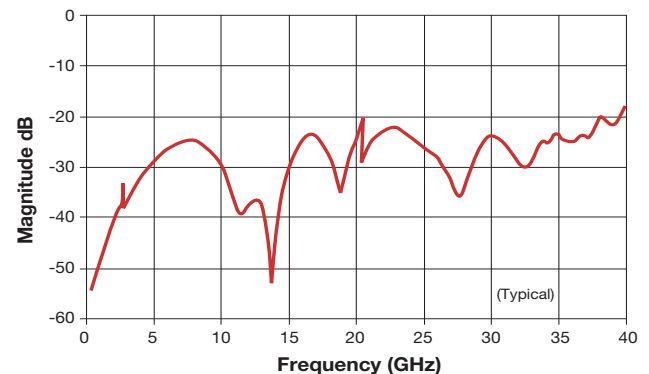
GX0S products (like all GX Series parts) are RoHS compliant.

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

### GX0S Series – Insertion Loss (S21)



### GX0S Series – Return Loss (S11)



### Test Parameters:

All testing done on 10-mil thick Rogers R03006 Microstrip board, with device under test subtending a 10 mil gap in a 13.4 mil wide center trace (nominal 50 Ohm characteristic impedance)

### MECHANICAL SPECIFICATIONS

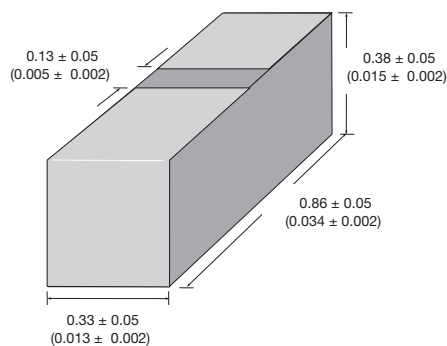
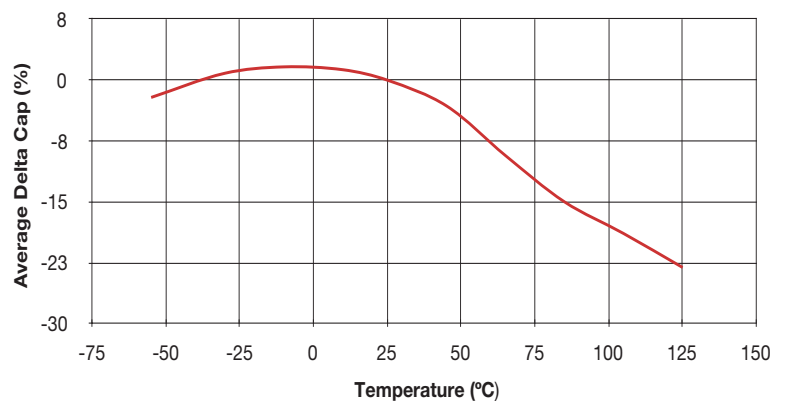


Figure 1



# GX0S Series




## Ultra Broad Band Capacitor

### ELECTRICAL SPECIFICATIONS

|                                      |  |
|--------------------------------------|--|
| Capacitance                          | 0.1 uF ±20%                                    |
| Voltage Rating/Operating Temperature | 6.3 VDC @ 85°C, 4 VDC @ 125°C                  |
| Dielectric Withstanding Voltage      | 250% WVDC                                      |
| Insulation Resistance                | 10,000 Meg Ohms @ 25°C, 1,000 Meg Ohms @ 125°C |
| Temperature Coefficient              | 6.3 VDC (X5R), 4 VDC - See Figure 1            |

### HOW TO ORDER

|              |                             |  |  |                              |                                |  |  |   |
|--------------|-----------------------------|--|--|------------------------------|--------------------------------|--|--|---|
| <b>GX</b>    | <b>OS</b>                   | <b>6D</b>  | <b>104</b>   | <b>M</b>                     | <b>A</b>                       | <b>T</b>   | <b>D</b>   |  |
| <b>Style</b> | <b>Case Size</b><br>Special | <b>Voltage/Dielectric</b><br>6D = 6.3VDC/X5R<br>4.0VDC/125°C<br>(See Fig. 1) | <b>Capacitance</b><br>104 = 0.1uF<br>EIA Cap Code<br>in pF | <b>Tolerance</b><br>M = ±20% | <b>Failure Rate</b><br>A = Std | <b>Termination</b><br>T = Ni-Sn<br>(Standard)<br>7 = Ni-Au | <b>Packaging</b><br>D = 4000 pcs, 3" T&R<br>D-500 = 500 pcs, 3" T&R<br>D-1000 = 1000 pcs, 3" T&R |   |