UBR Series
Ultra-Broadband Resistors

GENERAL DESCRIPTION
AVX Passive Micro Component group is pleased to introduce the UBR Series of next generation of surface mount Ultra-Broadband Resistors. This product was designed utilizing our proprietary Glass Sandwich Flexiterm® Technology, (GSFT). The Flexiterm® is a surface mountable automotive qualified termination that adds an extra margin against damage due to flexure during installation. The UBR Series has been designed with high quality selected materials that yield excellent performance. This product is ideal for use in Optical Transceiver Modules or any application requiring excellent ultra-broadband performance. The use of glass sandwich technology and precision laser trimming reduces parasitic noise up to 20 GHz.

FEATURES
- Frequency Range: DC to 20 GHz
- EIA 0402 Case Size
- Power Rating: 125 mW
- Operating Temperature: -40°C to +125°C
- 100% Laser Trimming for Tight Tolerances
- RoHS Compliant

APPLICATIONS
- Optical Transceiver Modules
- Broadband Receiver
- TOSA / ROSA
- Wideband Test Equipment
- Low Noise Amplifier
- MMIC Amplifiers
- Mixers
- Directional Couplers
- Ultra-Broadband Splitters and Combiners

MARKETS
- Opto-electronics
- Automotive
- Telecom
- Broadband Jamming for EW
- Satellite Communication

HOW TO ORDER
UBR Series Code
0402 Case Size
0402 = 0402 0201 = 0201

TCR (ppm/°C)
A = ±250
B = ±100
C = ±50*
D = ±25*
E = Special Request
*Non-standard TCR values per special request

Resistance
First 2 Significants for Resistance R for decimal point

Termination
Please supply design or contact factory

Type
Z = Flexiterm® (Ag/Epoxy), plated
7 = Gold Termination*
*Non-standard termination per special request

Packaging
TR = 7” reel

MECHANICAL DIMENSIONS

0402 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Resistor</th>
<th>Detail</th>
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</thead>
<tbody>
<tr>
<td>Outline</td>
<td>EIA 0402</td>
</tr>
<tr>
<td>Package</td>
<td>Glass wafer sandwich</td>
</tr>
<tr>
<td>Maximum Voltage</td>
<td>1 KV</td>
</tr>
<tr>
<td>Resistance Value Range</td>
<td>From 16.6 Ohms to 200 Ohms</td>
</tr>
<tr>
<td>Termination</td>
<td>FLEXITERM® (Ag/Epoxy), plated</td>
</tr>
<tr>
<td>Power Rating</td>
<td>125 mW</td>
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<tr>
<td>Operating Temperature Range</td>
<td>-40°C to +125°C</td>
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<tr>
<td>Tolerances</td>
<td>0.5%, 1%, 2%, 5%</td>
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0201 SPECIFICATIONS

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SUGGESTED MOUNTING PAD DIMENSIONS

W = Chip Width   L = Chip Length   T = Chip Thickness

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<tbody>
<tr>
<td>0201</td>
<td>0.0256</td>
<td>0.0075</td>
<td>0.0130</td>
<td>0.0268</td>
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<td>0402</td>
<td>0.0213</td>
<td>0.0125</td>
<td>0.0206</td>
<td>0.0436</td>
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Dimensions are in inches.

NOTES:
Mounting will allow the solder fillet to travel up approximately 0.015" of the chip's end and side termination surface. Heavier fillets require a predeposition of solder paste and or an increase in pad dimensions. Typical solder paste application is a .008" to 0.01" thickness with >50% of volume in solder alloy.