



GENERAL DESCRIPTION

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 flexture 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 triming reduces parasitic noise up to 40 GHz.

Mixers

Directional Couplers

and Combiners

Ultra-Broadband Splitters

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FEATURES

- Frequency Range: DC to 40 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 •

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

HOW TO ORDER

Series Code UBR = Ultra-Broadband Resistor Case Size 0402=0402 TCR (ppm/°C) A = ±150 E = Special Request Please supply de *Non-standard values per special request	UBR	0402	A	500	F	Z	Packaging TR = 7 Termination Type Z = Flexiterm [®] (Ag/Epoxy) NiSn plated 7 = Gold Termination* *Non-standard termination per special request
Resistance First two Significants for Resistance STANDARD VALUES Part Number Value		l point					Resistor Tolerance D = ±0.5%* F = ±1% G = ± 2% S = Special Request Please supply design or contact factory *Non-Standard tolerance values per special request

Value(ohm)
25Ω
37.5Ω
43Ω
50Ω
75Ω
100Ω
200Ω

Resistors from 10 to 1k Ohm available upon request



*Data files contain DXF and S2P files





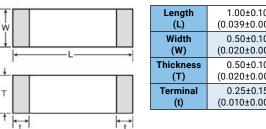
For RoHS compliant products, please select correct termination style

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TDS-STFP-0006 | Rev 1

MECHANICAL DIMENSIONS

mm (inches)

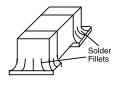


1.00±0.10		Resistor
0.039±0.004)		Outline
0.50±0.10 0.020±0.004)		Package
,		Maximum Voltag
0.50±0.10 0.020±0.004)		Termination
0.25±0.15 0.010±0.006)		Power Rating
		Operating Temperature

0402 TYPICAL CHARACTERISTICS

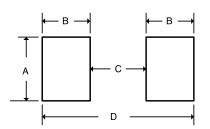
Resistor	Detail
Outline	EIA 0402
Package	Glass wafer sandwich
Maximum Voltage	1 KV
Termination	FLEXITERM [®] (Ag/Epoxy), plated
Power Rating	125 mW
Operating Temperature Range	-40°C to +125°C

SUGGESTED MOUNTING PAD DIMENSIONS



Normal Pads

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



Case Size	A Min.	B Min.	C Min.	D Min.
0402	0.54	0.3175	0.523	1.107
0402	(0.0213)	(0.0125)	(0.0206)	(0.0436)

Dimensions are in inches.

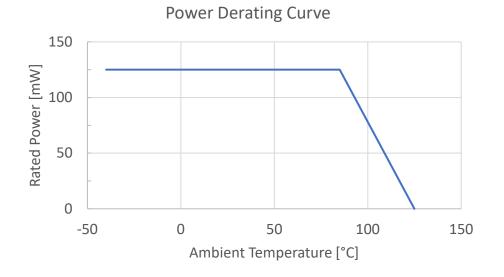
NOTES:

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. Can be mounted in both vertical and horizontal orientation without changing electrical performance

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POWER DERATING



ENVIRONMENTAL TEST

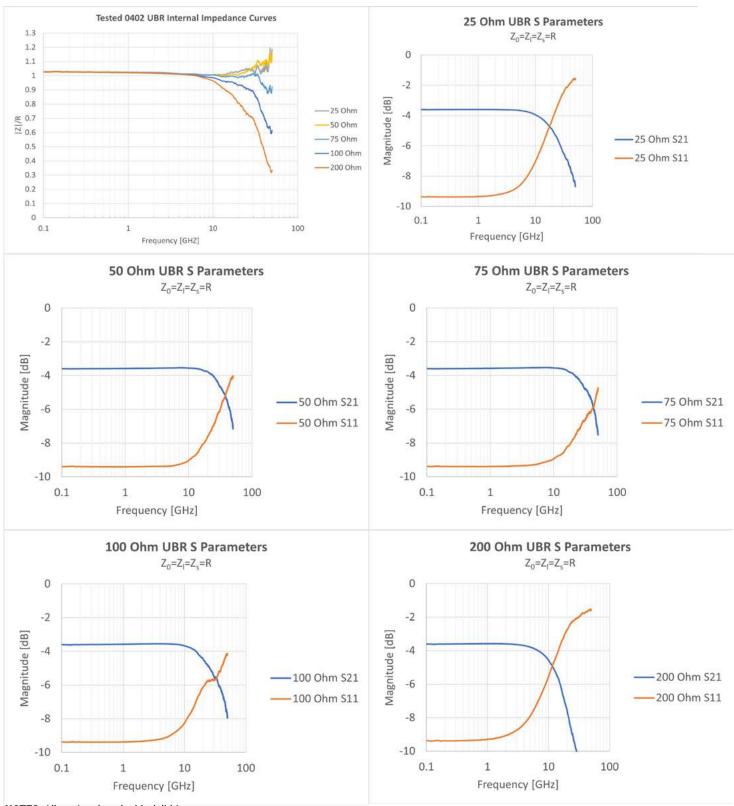
Test	Limits	Specification	
Life Test/Stability	±0.25% Max Δ R/R	MIL-STD-202 MTD 108, 1000hrs, 125°C, 50mW	
Thermal Shock	±0.25% Max ∆ R/R	MIL-STD-202 MTD 107	
High Temperature Exposure	±0.25% Max ∆ R/R	100 Hrs @ 150°C	
Moisture Resistance	±0.25% Max ∆ R/R	MIL-STD-202 MTD 106	

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INTERNAL IMPEDANCE CURVES



NOTES: All testing done by Modelithics

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> TDS-STFP-0006 | Rev 1 SPECIALTY THIN FILM PRODUCTS