

Eccosorb® BSR / MFS

High Loss, Magnetically Loaded, Elastomeric Microwave Absorber



HIGH-LOSS ELASTOMERIC ABSORBER

Eccosorb BSR / MFS is a thin, flexible, high-loss, electrically non-conductive silicone absorber. It is designed for the frequency range from 1 GHz to mm wave. It has low outgassing properties and high temperature resistance. BSR / MFS is flexible and can be fitted to compound curves. BSR and MFS refer to the same product where BSR-1 is MFS-124 and BSR-2 is MFS-117.

FEATURES AND BENEFITS

- Flexible structure for improved fit
- High thermal stability
- Electrically non-conductive
- High magnetic loss
- Low outgassing
- Good adhesion to metals

MARKETS

- Mobile / Data Infrastructure
- Security and Defense
- Automotive Electronics
- Industrial Electronics

VALUE

- Simplified design due to mechanical and electrical properties
- Environmentally friendly solution meeting regulatory requirements of RoHS and REACH
- Improved reliability performance of electronics
 - Better signal integrity due to high reduction of EMI
 - Consistent electronics performance due to low outgassing properties
 - Reliable mechanical attachment

TYPICAL PROPERTIES	TYPICAL DATA
Frequency Range (GHz)	1 – 40
Service Temperature °C	160
Flame Rating	UL 94 V-0 (BSR-1)
Hardness (Shore A)	> 70
Elongation (%)	50
Tensile Strength (MPa)	5.0
Volume Resistivity (ohm-cm)	2×10^8
Thermal Expansion (per °C)	63×10^{-6}
Thermal Conductivity (W/mK)	0.865
Water Absorption (% 24 hours)	< 0.1
Dielectric Strength (v/mil)	> 10
Outgassing (%TML) (%CVCM)*	0.47 / 0.28

Data for design engineer guidance only. Observed performance varies in application.

Engineers are reminded to test the material in application.

* Outgassing data per ASTM E595-07; criteria for acceptability is 1.00% TML and 0.10% CVCM.

APPLICATIONS

- Eccosorb BSR/MFS is engineered to reduce or eliminate surface currents, cavity resonance, coupling, and generally dampen reflections. It will significantly improve the operation of microwave devices by lowering the Q of cavities.
- Eccosorb BSR/MFS is recommended for use in high reliability aerospace, military, and space applications, exhibiting excellent thermal cycling, shock and vibration absorption characteristics.
- Some other applications include power amplifiers, oscillators and down/up converters.

Americas: +1.866.928.8181

Europe: +49.(0).8031.2460.0

Asia: +86.755.2714.1166

www.lairdtech.com

Hybrid Thermal/EMI Absorber

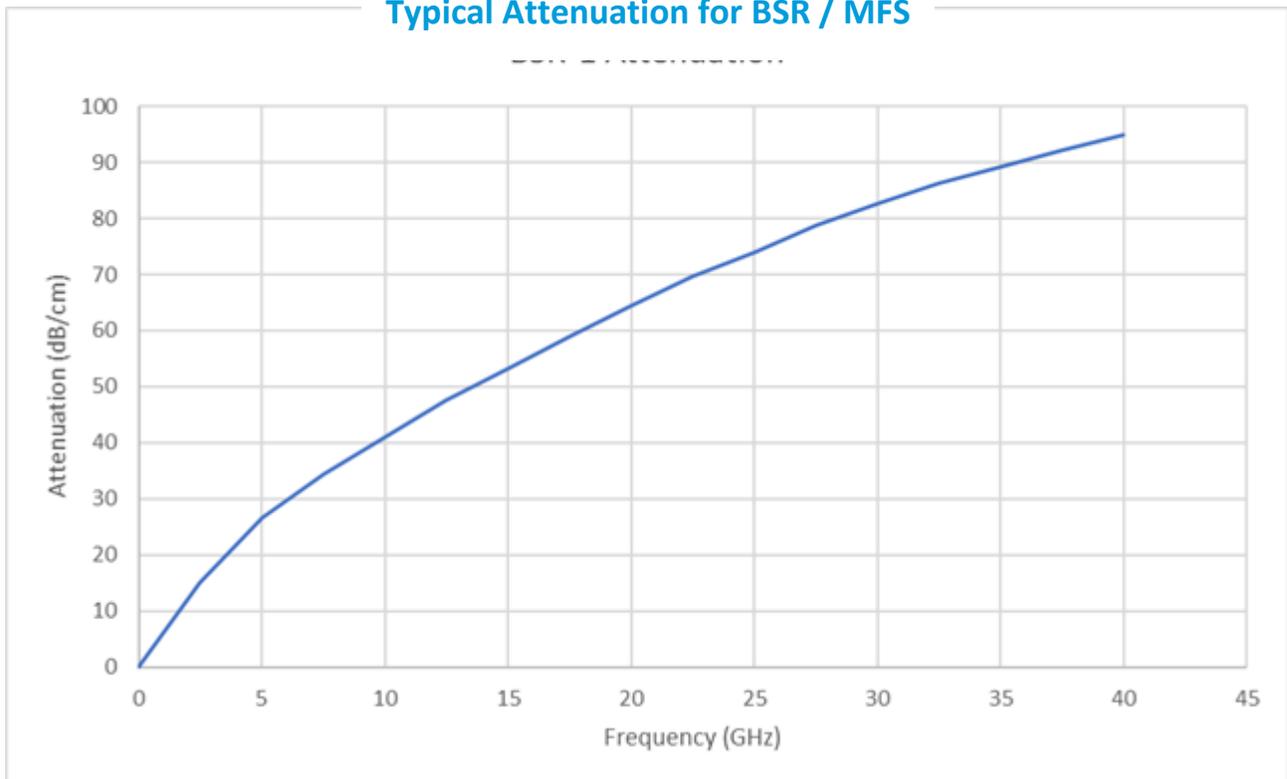
AVAILABILITY

- Standard sheets are 305 x 305mm (12"x12").
- Standard thicknesses are 0.25mm (0.010"), 0.50mm (0.020"), 1.0mm (0.040"), 1.5mm (0.060") and 2.54mm (0.100")
- For most applications material is supplied with a pressure sensitive adhesive.
- It can be supplied with or without pressure sensitive adhesive (PSA).
- Available in other thicknesses, sizes, and customer specified shapes upon request.

INSTRUCTIONS FOR USE

- This material is designed to function directly in front of a metallic surface.
- For applications where the service temperature exceeds 121°C (250°F), the material can be bonded to most substrates by using an RTV silicone based adhesive in conjunction with a suitable primer.
- This material can be readily cut with a sharp knife and template. It is a very flexible material and conforms to contoured surfaces.

Typical Attenuation for BSR / MFS



RFP-DS-BSR MFS 012618

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user. Laird Technologies makes no warranties as to the fitness, merchantability, suitability or non-infringement of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies' Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2015 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights.