

BandSorb® HP

Ferrite Sheets For NFC & Wireless Charging

Description:

BandSorb® HP series is a thin high permeability ferrite sheet designed to have low losses at 13.56 MHz. The high permeability makes it ideal to use for NFC, RFID application and wireless charging applications.

Availability:

BandSorb® HP series materials can be supplied in sheets and custom configurations; the standard sheet size is 125 mm x 125 mm. The BandSorb® HP consists of a ferrite material covered with a protective film on one side and adhesive tape on the other side.

Features and Benefits

High magnetic permeability, low loss
RoHs, Halogen Free

Applications

BandSorb® HP series can be used to improve the performance of:

- NFC antenna for mobile phones and automotive.
- NFC or RFID antenna for security & access control system.
- Wireless charging for mobile phones and battery powered handheld electronic devices

Physical Properties :

Datasheet for Performance Characteristics			
CHARACTERISTICS	TEST	UNIT	SPECIFICATIONS
BandSorb®	-	-	HP-150
Real Permeability	@13.56MHz, 0.1V	μ'	150
Imaginary Permeability	@13.56MHz, 0.1V	μ''	<5
Ferrite Thicknesses	-	mm (mil)	0.1 (3.9)
Typical Thicknesses	-	mm (mil)	0.15 (5.9)
Tensile Strength	ASTM D 1000	MPa (psi)	6.4 (928)
Service Temperature	-	°C (°F)	-25 to 120 (-13 to 248)
Flammability Rating	UL94*	-	V2
Colour	-	-	Black
Volume Resistivity	ASTM D 991	Ω -cm (Ω -in)	> 10 ⁹ (>10 ⁹)
Dielectric strength	-	V	400
Compliance	2011/65/EU(RoHS 2.0) Compliance, Halogen Free		

*Tested in accordance of UL94 specification

-The technical specification data is based on SEM tests and analysis that we believe to be reliable. However, in no event, shall SEM be liable for inaccuracies or omissions contained therein. In all cases, details and values should be verified by the customer

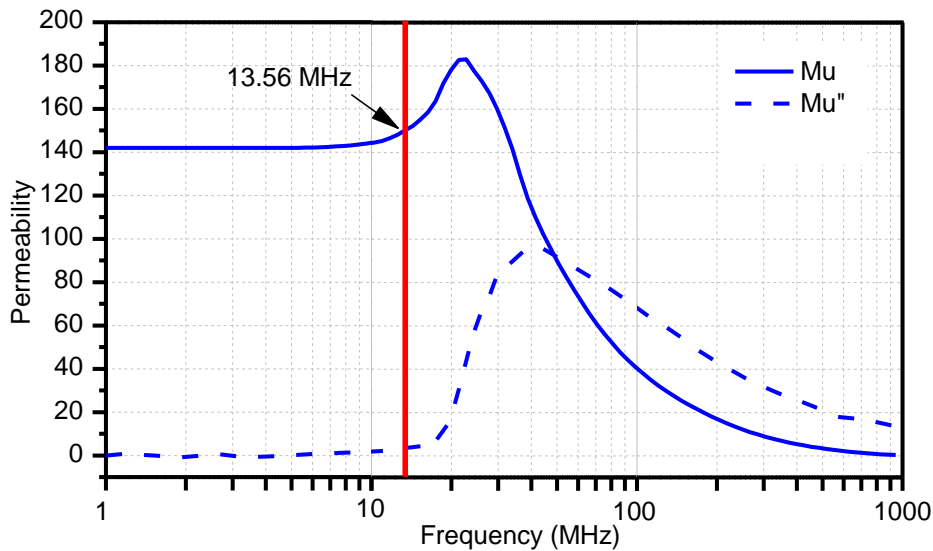
-UL is a registered trademark of Underwriters Laboratories, Inc.,

SEM, Inc.
1555 Jefferson Road,
Rochester, NY 14623
Tel: +1 585-643-2000

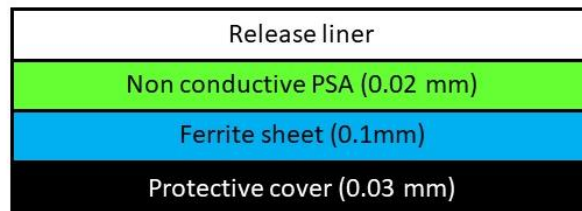
SEM BELGIUM bv
Schatting 73
BE-8210 Zedelgem
Belgium
Tel. +32 59 56 02 70

Schlegel Electronic Materials Asia Limited
Unit 1, 3/F, Block A
New Trade Plaza
6 On Ping Street
Shatin, N.T., Hong Kong
Tel: +852 2686 8168

Electromagnetic Properties

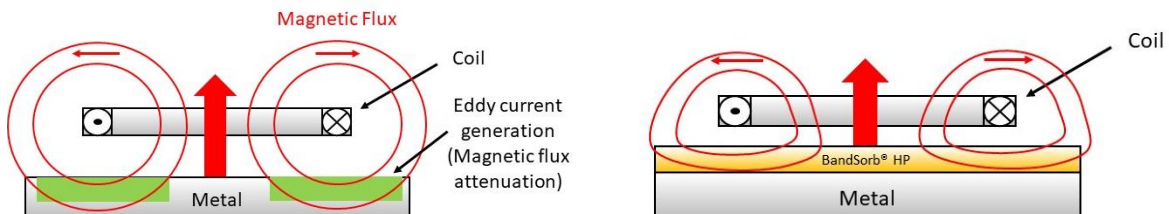


Structure



Application example

Example – Placing BandSorb® HP between the coil and the other components will suppress the formation of eddy current.



Part number system example

HP- 150 10 - 4040
 Product name permeability@13.56MHz thickness ferrite (0.1mm) Part Size code (40x40 mm)

SEM, Inc.
 1555 Jefferson Road,
 Rochester, NY 14623
 Tel: +1 585-643-2000

SEM BELGIUM bv
 Schatting 73
 BE-8210 Zedelgem
 Belgium
 Tel. +32 59 56 02 70

Schlegel Electronic Materials Asia Limited
 Unit 1, 3/F, Block A
 New Trade Plaza
 6 On Ping Street
 Shatin, N.T., Hong Kong
 Tel: +852 2686 8168