

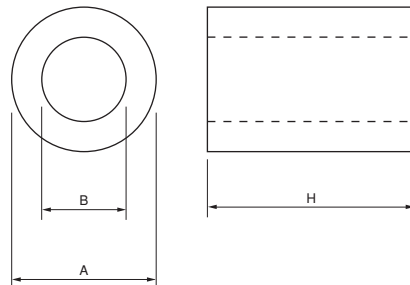
Ferrite Cores for EMI Suppression Beads Core

FSRH Series

■ Appearance



■ Dim. illustration



■ Features

1. Ease of use and excellent noise suppression-data lines can be passed through the core or wound around several times.
2. Effective for suppressing noise at high frequencies.

■ Applications

1. For data-processing equipment (PC, PDA, game machine, etc.), and peripheral equipment (printer, HDD, display, etc.)
2. For digital equipment (DSC, DVC, DVD recorder, mobile phone, digital audio, optical drive, PDP/LCD/FED, facsimile, etc.)

■ Rated Value

Part Number	A : Outer Dimension	B : Inner Dimension	H : Length Dimension	Impedance at 100MHz (1 turn)	Note
FSRH021049RNB01B	1.95mm ±0.15mm	1.02mm ±0.15mm	4.9mm ±0.25mm	34ohm (typ.)	-
FSRH030060RNB00B	3.36mm ±0.15mm	1.1mm ±0.15mm	6.0mm ±0.2mm	74ohm (typ.)	-
FSRH041D85RNB00B	3.6mm ±0.2mm	1.0mm ±0.2mm	4.85mm ±0.2mm	66ohm (typ.)	-
FSRH044C00RNB00B	3.6mm ±0.1mm	1.5mm ±0.1mm	3.0mm ±0.15mm	40ohm (typ.)	-
FSRH044040RNB00B	3.6mm ±0.1mm	1.5mm ±0.1mm	4.0mm ±0.15mm	50ohm (typ.)	-
FSRH044050RNB00B	3.6mm ±0.1mm	1.5mm ±0.1mm	5.0mm ±0.15mm	53ohm (typ.)	-
FSRH050050RN000B	4.7mm ±0.3mm	1.4mm ±0.2mm	5.0mm ±0.3mm	64ohm (typ.)	-
FSRH070080RN000B	7.0mm ±0.3mm	4.0mm ±0.2mm	8.0mm ±0.5mm	59ohm (typ.)	-
FSRH070140RN000B	7.0mm ±0.3mm	4.0mm ±0.2mm	14.0mm ±0.5mm	82ohm (typ.)	-
FSRH090100RN000B	9.0mm ±0.3mm	5.0mm ±0.3mm	10.0mm ±0.5mm	72ohm (typ.)	For USB/IEEE1394
FSRH090160RN000B	9.0mm ±0.3mm	5.0mm ±0.3mm	16.0mm ±0.5mm	100ohm (typ.)	For USB/IEEE1394
FSRH090200RN000T	9.0mm ±0.3mm	5.0mm ±0.3mm	20.0mm ±0.8mm	135ohm (typ.)	For USB/IEEE1394
FSRH091100RN000B	9.0mm ±0.3mm	4.3mm ±0.2mm	10.0mm ±0.5mm	94ohm (typ.)	For USB/IEEE1394
FSRH091160RN000T	9.0mm ±0.3mm	4.3mm ±0.2mm	16.0mm ±0.5mm	145ohm (typ.)	For USB/IEEE1394

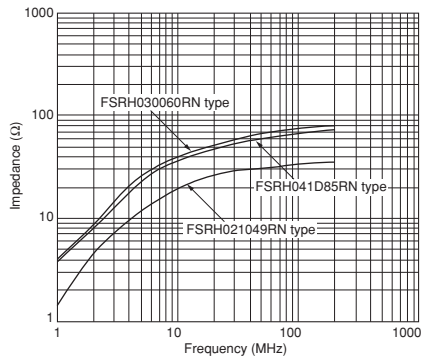
Continued on the following page.

⚠Note:

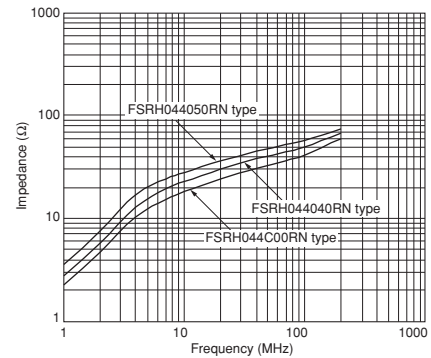
1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Continued from the preceding page.

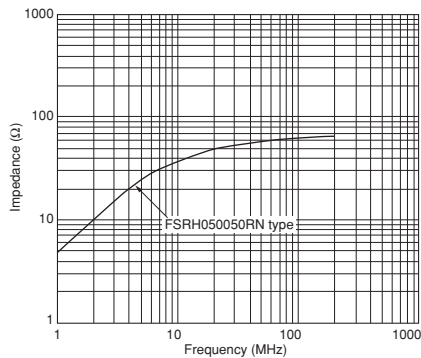
■ Impedance Frequency Characteristics FSRH021/FSRH030/FSRH041



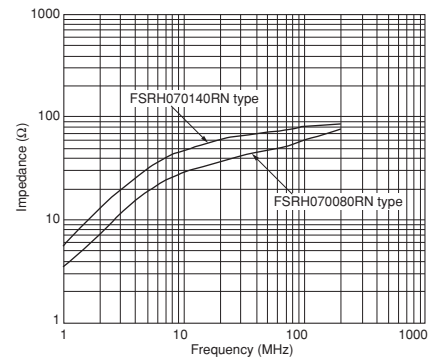
■ Impedance Frequency Characteristics FSRH044



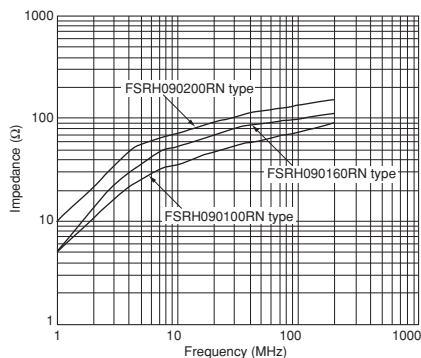
■ Impedance Frequency Characteristics FSRH050



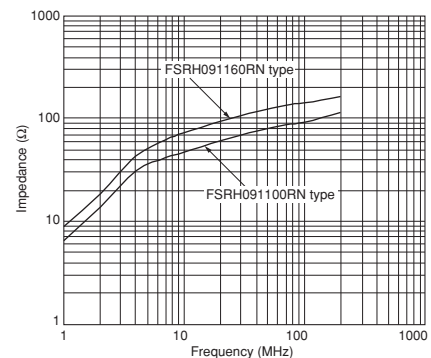
■ Impedance Frequency Characteristics FSRH070



■ Impedance Frequency Characteristics FSRH090



■ Impedance Frequency Characteristics FSRH091



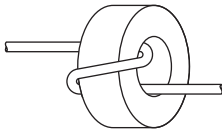
Continued on the following page.

⚠Note:

1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

 Continued from the preceding page.

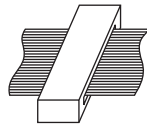
■ Cases to Use



Ring Type
(FSRB Type)



Beads Type
(FSRH Type)



Core for Flat Cable Type
(FSRC Type)

Continued on the following page. 

Note:

1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

Continued from the preceding page.

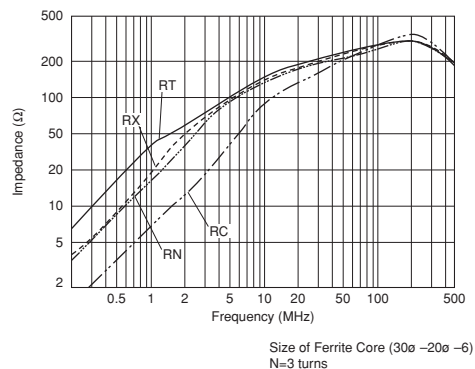
■ Data/Notice

■ Standard Characteristics of Ferrite Materials

Material	μ	Bs (mT)	Tc (°C)	ρ (Ω -m)
RT	1600	290	≥ 110	$>10^5$
RX	750	330	≥ 110	$>10^5$
RN	550	310	≥ 130	$>10^5$
RC	250	320	≥ 140	$>10^5$

Size of Ferrite Core (30 ϕ - 20 ϕ - 6)

■ Ferrite Material Comparison



■ Notice (Storage and Operating Condition)

This product is designed for use in the following environment:

FSRH/FSRB/FSRC

Operating Temperature: -25 to 85°C

Storage Temperature: -25 to 125°C

FSSA_S

Operating Temperature: -25 to 85°C

Storage Temperature: -25 to 85°C

Do not use in the following environments or under the following conditions:

1. Ambient air containing corrosive gas
(Chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxide gas, etc.)
2. In liquid
3. Other environments similar to 1 through 2

■ Notice (Handling)

1. Protect product from damage that may occur in transit such as cracking of the core.
2. Handle product with care. Do not drop or throw.
3. Do not apply excessive force to the product.

FSSA_S Storage:

Store in manufacturer's package or tightly re-closed box with following conditions.

Temperature: -10 to +35°C

Humidity: 15 to 85% RH

Use this product within 6 months after receipt.

Storage in high temperature, high humidity or quick temperature change will damage the function of the tape.

⚠Note:

1. This datasheet is downloaded from the website of Murata Manufacturing co., ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.
2. This datasheet has only typical specifications because there is no space for detailed specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.