

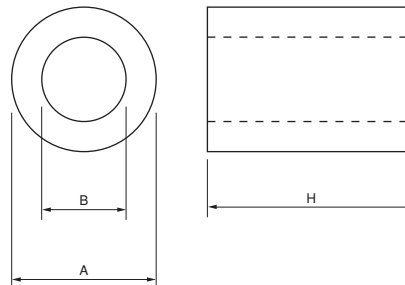
Ferrite Cores for EMI Suppression Beads Core

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

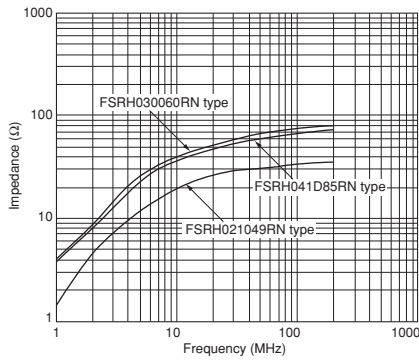
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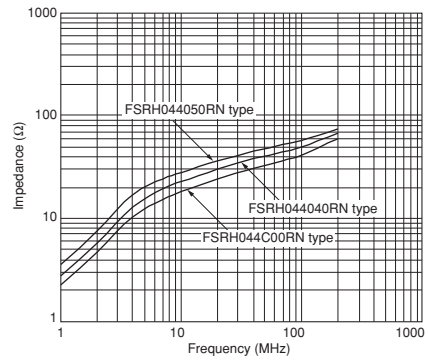
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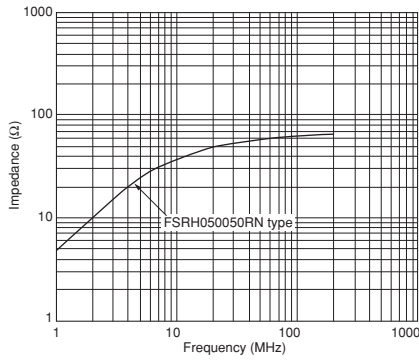
Impedance Frequency Characteristics
FSRH021/FSRH030/FSRH041



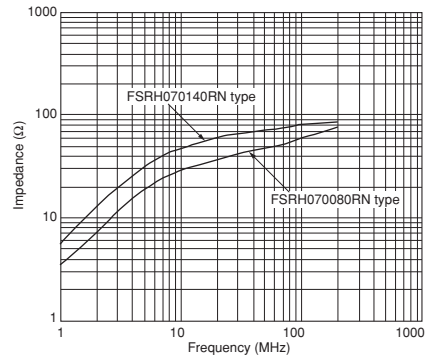
Impedance Frequency Characteristics
FSRH044



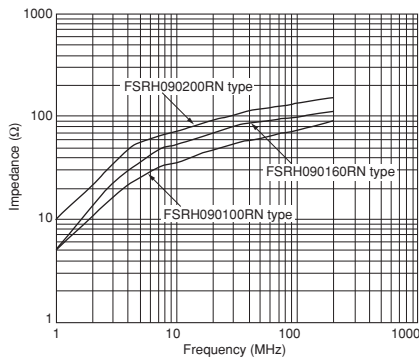
Impedance Frequency Characteristics
FSRH050



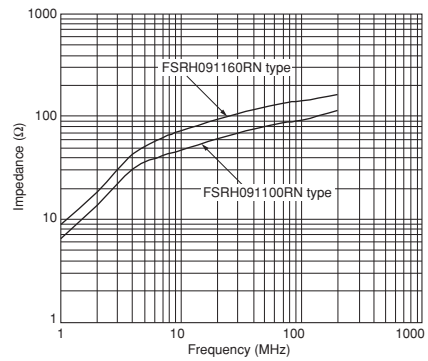
Impedance Frequency Characteristics
FSRH070



Impedance Frequency Characteristics
FSRH090




Impedance Frequency Characteristics
FSRH091



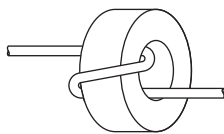
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■ Cases to Use




Ring Type
(FSRB Type)



Beads Type
(FSRH Type)



Core for Flat Cable Type
(FSRC Type)

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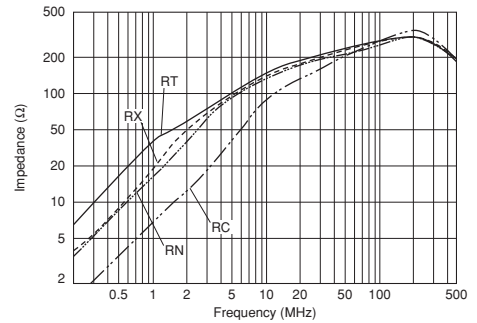
■ Data/Notice

■ 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



Size of Ferrite Core (30 ϕ - 20 ϕ - 6)
N=3 turns

■ 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.

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