

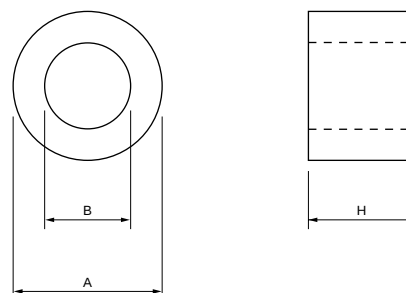
Ferrite Cores for EMI Suppression Ring Core

FSRB Series

■ Appearance



■ Dim. illustration



■ Features

1. Easy to use and excellent noise suppression. Data lines can be passed through core or wound around core several times.
2. Effective for suppressing noise at high frequencies

Murata can also supply Resin coated core which is shatter-proof with continuous noise removal functionality.

Please ask us about the resin coated core, if necessary.

■ Applications

1. For Data-processing equipment (PC, PDA, Game machine, etc.), and peripheral equipments (Printer, FDD, HDD, Display, etc.)
2. For digital equipments (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 (3 turns)	Note
FSRB041020RNB00B	3.6mm±0.15mm	1.0mm±0.15mm	2.0mm±0.2mm	267ohm(typ.)	-
FSRB044020RNB00B	3.6mm±0.15mm	1.5mm±0.15mm	2.0mm±0.15mm	178ohm(typ.)	-
FSRB060040RNB00B	5.5mm±0.2mm	2.7mm±0.2mm	4.0mm±0.3mm	290ohm(typ.)	-
FSRB071040RNB00B	7.0mm±0.3mm	4.0mm±0.2mm	4.0mm±0.2mm	222ohm(typ.)	-
FSRB090060RNB00B	9.0mm±0.3mm	5.0mm±0.3mm	6.0mm±0.5mm	356ohm(typ.)	For USB/IEEE1394
FSRB090080RNB00B	9.0mm±0.3mm	5.0mm±0.3mm	8.0mm±0.5mm	466ohm(typ.)	For USB/IEEE1394
FSRB091060RNB00B	9.0mm±0.3mm	4.3mm±0.2mm	6.0mm±0.5mm	451ohm(typ.)	For USB/IEEE1394
FSRB091080RNB00B	9.0mm±0.3mm	4.3mm±0.2mm	8.0mm±0.5mm	582ohm(typ.)	For USB/IEEE1394
FSRB100030RTB00B	10.0mm±0.3mm	6.0mm±0.2mm	3.0mm±0.3mm	170ohm(typ.)	For USB/IEEE1394

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⚠ Note:

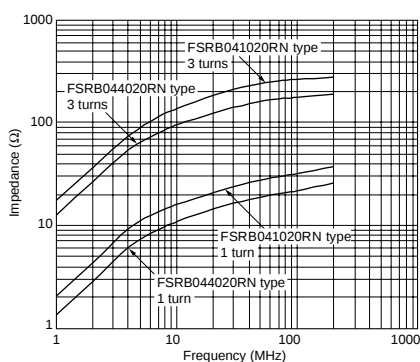
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Part Number	A : Outer Dimension	B : Inner Dimension	H : Length Dimension	Impedance at 100MHz (3 turns)	Note
FSRB100060RTB00B	10.0mm±0.3mm	6.0mm±0.2mm	6.0mm±0.5mm	316ohm(typ.)	For USB/IEEE1394
FSRB100080RTB00B	10.0mm±0.3mm	6.0mm±0.2mm	8.0mm±0.5mm	388ohm(typ.)	For USB/IEEE1394
FSRB100100RTB00B	10.0mm±0.3mm	6.0mm±0.2mm	10.0mm±0.5mm	475ohm(typ.)	For USB/IEEE1394
FSRB120050RTB00T	12.0mm±0.3mm	7.0mm±0.3mm	5.0mm±0.5mm	264ohm(typ.)	For USB/IEEE1394
FSRB120060RTB00T	12.0mm±0.3mm	7.0mm±0.3mm	6.0mm±0.5mm	310ohm(typ.)	For USB/IEEE1394
FSRB120080RTB00T	12.0mm±0.3mm	7.0mm±0.3mm	8.0mm±0.5mm	400ohm(typ.)	For USB/IEEE1394
FSRB120100RTB00T	12.0mm±0.3mm	7.0mm±0.3mm	10.0mm±0.5mm	450ohm(typ.)	For USB/IEEE1394
FSRB121060RTB00T	12.0mm±0.3mm	5.6mm±0.3mm	6.0mm±0.5mm	406ohm(typ.)	For USB/IEEE1394
FSRB121080RTB00T	12.0mm±0.3mm	5.6mm±0.3mm	8.0mm±0.5mm	490ohm(typ.)	For USB/IEEE1394
FSRB121100RTB00T	12.0mm±0.3mm	5.6mm±0.3mm	10.0mm±0.5mm	535ohm(typ.)	For USB/IEEE1394
FSRB140080RNB00T	14.0mm±0.3mm	10.0mm±0.3mm	8.0mm±0.5mm	340ohm(typ.)	-
FSRB140140RNB00T	14.0mm±0.3mm	10.0mm±0.3mm	14.0mm±0.5mm	450ohm(typ.)	-
FSRB142060RXB00T	14.0mm±0.4mm	8.0mm±0.4mm	6.0mm±0.5mm	325ohm(typ.)	-
FSRB142080RXB00T	14.0mm±0.4mm	8.0mm±0.4mm	8.0mm±0.5mm	415ohm(typ.)	-
FSRB142100RXB00T	14.0mm±0.4mm	8.0mm±0.4mm	10.0mm±0.5mm	492ohm(typ.)	-
FSRB143140RNB00T	14.0mm±0.3mm	11.0mm±0.3mm	14.0mm±0.3mm	364ohm(typ.)	-
FSRB160G75RN000T	16.0mm±0.5mm	12.0mm±0.5mm	7.75mm±0.3mm	247ohm(typ.)	-
FSRB162030RNB00T	16.3mm±0.5mm	8.3mm±0.4mm	3.0mm±0.3mm	230ohm(typ.)	-
FSRB162050RN000T	16.3mm±0.5mm	8.3mm±0.4mm	5.0mm±0.3mm	310ohm(typ.)	-
FSRB162100RNB00T	16.3mm±0.5mm	8.3mm±0.4mm	10.0mm±0.3mm	557ohm(typ.)	-
FSRB162160RN000T	16.3mm±0.5mm	8.3mm±0.4mm	16.0mm±0.3mm	640ohm(typ.)	-
FSRB190060RTB00T	19.0mm±0.5mm	10.0mm±0.4mm	6.0mm±0.3mm	360ohm(typ.)	-
FSRB190100RT000T	19.0mm±0.5mm	10.0mm±0.4mm	10.0mm±0.3mm	480ohm(typ.)	-
FSRB190180RT000T	19.0mm±0.5mm	10.0mm±0.4mm	18.0mm±0.3mm	619ohm(typ.)	-
FSRB221080RNB00T	22.0mm±0.5mm	14.0mm±0.4mm	8.0mm±0.3mm	360ohm(typ.)	-
FSRB250120RT000T	25.0mm±0.5mm	15.0mm±0.5mm	12.0mm±0.4mm	470ohm(typ.)	-
FSRB300080RT000T	30.0mm±0.4mm	20.0mm±0.4mm	8.0mm±0.3mm	300ohm(typ.)	-

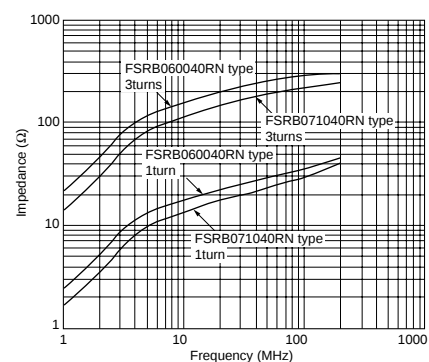
■ Impedance Frequency Characteristics

FSRB041/FSRB044



■ Impedance Frequency Characteristics

FSRB060/FSRB071



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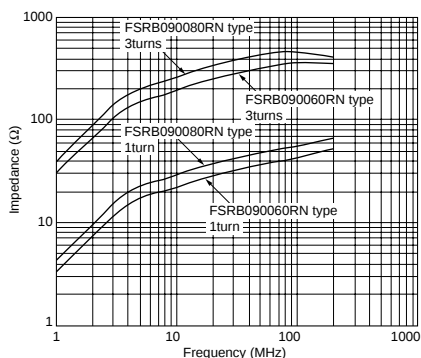
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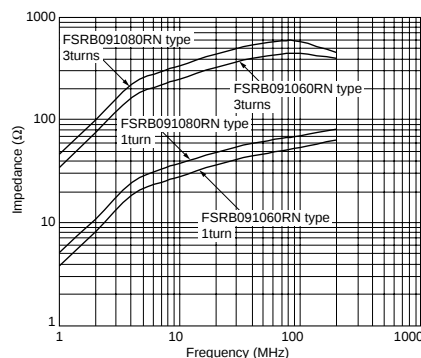
■ Impedance Frequency Characteristics

FSRB090



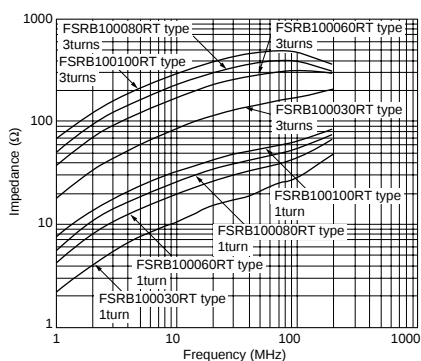
■ Impedance Frequency Characteristics

FSRB091



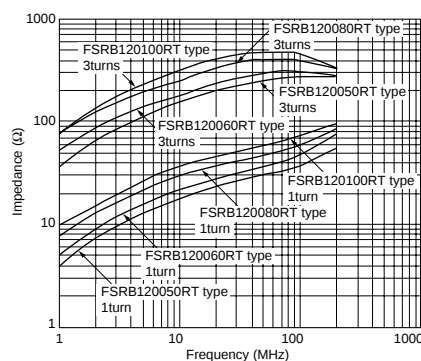
■ Impedance Frequency Characteristics

FSRB100



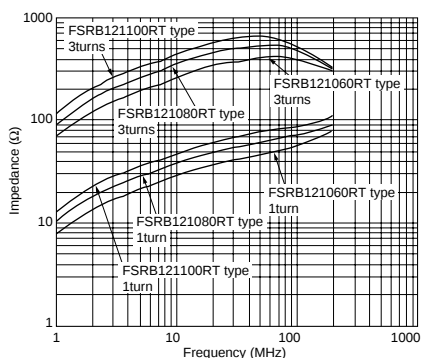
■ Impedance Frequency Characteristics

FSRB120



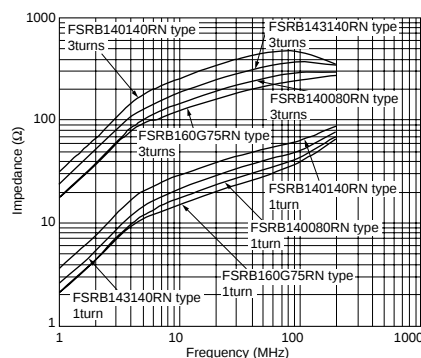
■ Impedance Frequency Characteristics

FSRB121



■ Impedance Frequency Characteristics

FSRB140/FSRB143/FSRB160



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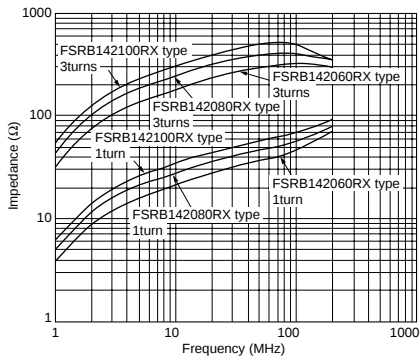
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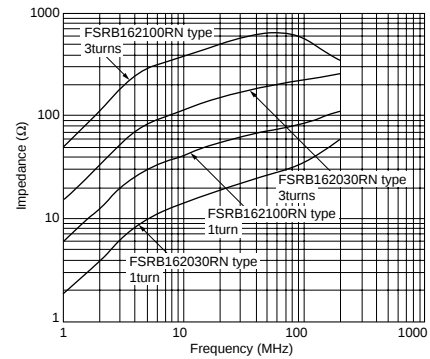
■ Impedance Frequency Characteristics

FSRB142



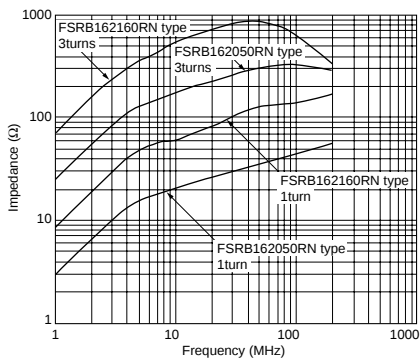
■ Impedance Frequency Characteristics

FSRB162



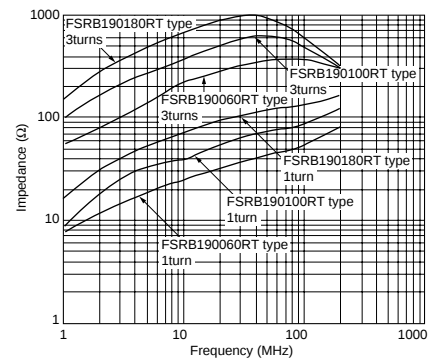
■ Impedance Frequency Characteristics

FSRB162



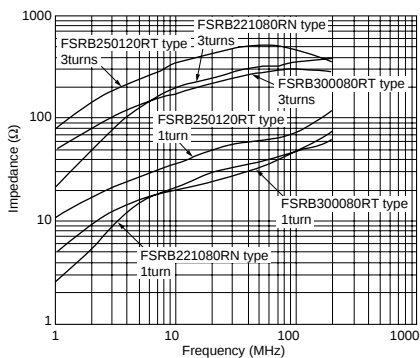
■ Impedance Frequency Characteristics

FSRB190

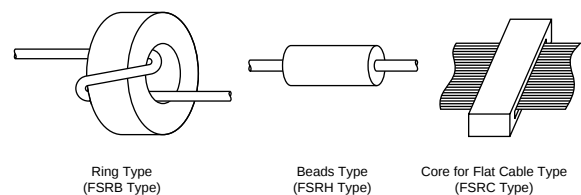


■ Impedance Frequency Characteristics

FSRB221/FSRB250/FSRB300



■ Cases to Use



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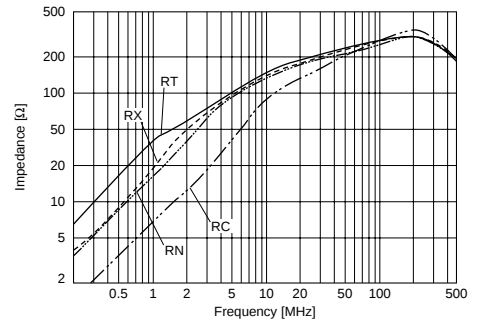
■ Data/Notice

■ 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



■ Notice (Storage and Operating Condition)

This product is designed for use in the following environment.

FSRH/FSRB/FSRC/FSMA/FSSA_T

Operating Temperature: -25 to 85 degrees C

Storage Temperature: -25 to 125 degrees C

FSSA_S

Operating Temperature: -25 to 85 degrees C

Storage Temperature: -25 to 85 degrees 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 core.
2. Handle product with care. Do not drop and throw.
3. Do not apply excessive force to the product.

FSSA_S Storage

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

Temperature: -10 to +35 degrees C

Humidity: 15 to 85% RH

Use this product within 6 months after receipt.

The storage in high temperature, high humidity or quick temperature change will damage to the function of tape.

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