

**FERRITECORE****FSSA\_RNN\*\*S Series (Sand Core)****Reference Specification****1. Scope**

This reference specification is applied to ferrite core (FSSA\_RNN\*\*S Series) used for noise suppression.

Please contact us when using this product for any other applications than described in the above.

**2. Murata Part Number**

< Part Numbering >

<u>F</u>	<u>S</u>	<u>S</u>	<u>A</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>R</u>	<u>N</u>	<u>0</u>	<u>0</u>	<u>S</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)						

(1) Ferrite

(2) Plate Core

(3) Dimensions

(4) Outer Dimension Supplement Code

(5) Length

(6) Material

(7) Process N0: Two or more cores Type/ N3: Tape UL510(FR)

(8) Individual Specification Code

(9) Packing Code S: Sheet

**3. Material**

Ferrite RN (Ni-Zn Type)

Basic characteristics of material (Average value)

Permeability :  $\mu_{ac} : 550 \pm 30\%$

Curie temperature :  $T_c \geq 130^\circ\text{C}$

Electrical resistance:  $\rho \geq 10^5 \Omega \cdot \text{m}$

Adhesive tape Acrylic

Adhesive film FSSA\*\*\*\*\*RNN00S : Acrylic

FSSA\*\*\*\*\*RNN30S : Acrylic (UL510FR)

**4. Use in the environment - Storage condition**

Operating temperature :  $-25 \sim 85^\circ\text{C}$

Storage temperature :  $-25 \sim 85^\circ\text{C}$

Storage condition : Use the products within 6 months after delivered.

Products should be storage on the following conditions.

Heat and high humidity and the intense place of temperature change make a cause, which causes characteristic degradation.

< Recommended storage condition >

Temperature :  $35^\circ\text{C}$  max.

Humidity : Around 50% relative humidity

Cool and dark place (No change on temperature and humidity as much as possible)

**5. Operating Condition**

Cable: Correspond by the thickness of 0.6mm

When you use it exceeding this, please evaluate reliability in your company.

**6. Appearance Standard**

There must be no defects, cracks and foreign substance on the core, which is harmful in practical.

The defects is  $5.0\text{mm}^2$  maximum. (please see fig. 1)

If there is any doubt about the appearance, the limit sample shall be made.

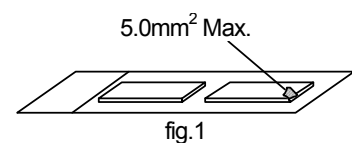
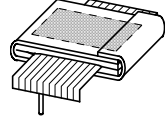
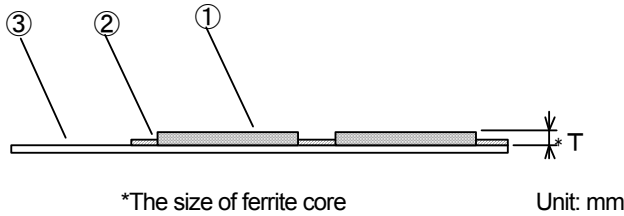
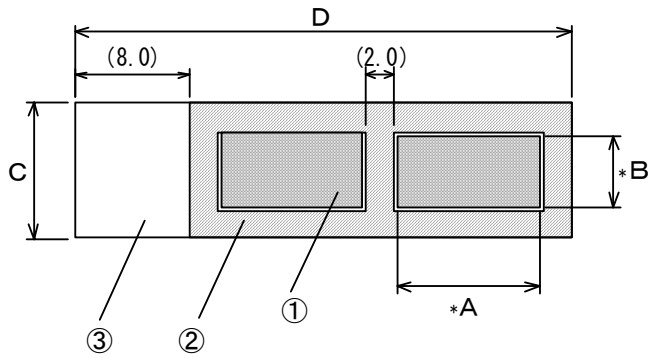


fig.1

7. Electrical Characteristic

No.	Item	Specifications	Test Methods		
7.1	Impedance	FSSA101005RNN00S	Instruments : 4191A (or equivalent) Frequency : 100MHz Lead wire : FSSA1** : t0.6 -25mm  Temperature : 23±2°C Impedance shall be measured at fig.2  		
		FSSA101005RNN30S		≥14Ω	
		FSSA151005RNN00S		≥14Ω	
		FSSA151005RNN30S			
7.2	Frequency-characteristics of Impedance (reference).	Please see P.5/5			

8. Shape and Dimension



No.	名称
①	Ferrite core (Murata Mfg.)
②	Adhesive tape : Acrylic
③	Adhesive film : Acrylic

P/N	Film	Ferrite core			Adhesive film	
		A	B	T	C	D
FSSA101005RNN00S	-	10.00±0.35	5.0±0.3	0.5±0.1	9.5±0.5	35.0±0.5
FSSA101005RNN30S	UL510(FR)					
FSSA151005RNN00S	-	15.00±0.35	5.0±0.3	0.5±0.1	9.5±0.5	45.0±0.5
FSSA151005RNN30S	UL510(FR)					



**11. Changes of specification**

Any changes in these devices shall be enforced after consultation.

**12. ⚠CAUTION**

## 1) Limitation of Applications

Please contact us before using our products for the under mentioned applications requiring especially high reliability in order to prevent defects which might directly cause damage to other party's life, body or property (listed below).

- (1) Aircraft equipment
- (2) Aerospace equipment
- (3) Undersea equipment
- (4) Nuclear control apparatus
- (5) Medical equipment
- (6) Transportation equipment (automobiles, trains, ships, etc.)
- (7) Traffic signal equipment
- (8) Disaster prevention / crime prevention equipment
- (9) Data-processing equipment
- (10) Applications of similar complexity or with reliability requirements comparable to the applications listed in the above

- 2) Be sure to provide an appropriate fail-safe function on your product to prevent a second damage that may be caused by the abnormal function or the failure of our product.

**13. Notice**

- 1) Protect product from damage that may occur in transit such as cracking of core.
- 2) Handle product with care. Do not drop.
- 3) Do not apply excessive force to the product.
- 4) Core should be taken to damage of lead wire when it is inserting or rolling in core.
- 5) This product is designed for use in the environment specified in this approval drawing; do not be used in the following environments or under the following conditions.
  - (1) Ambient air containing corrosive gas. (Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub>, etc.)
  - (2) In liquid.
  - (3) Other environments similar to (1) through (2).

Please contact us before using our products for the below mentioned environments.

- 6) Please don't peel off and put a tape again due to using strong adhesive tape in order to fix long term.

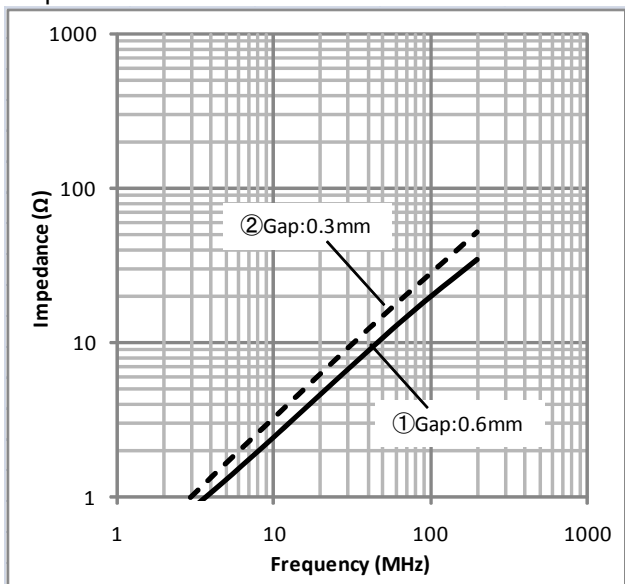
**14. ⚠ Note:**

- 1) Please make sure that your product has been evaluated in view of your specifications with our product being mounted to your product.
- 2) You are requested not to use our product deviating from the reference specifications.
- 3) The contents of this reference specification are subject to change without advance notice.

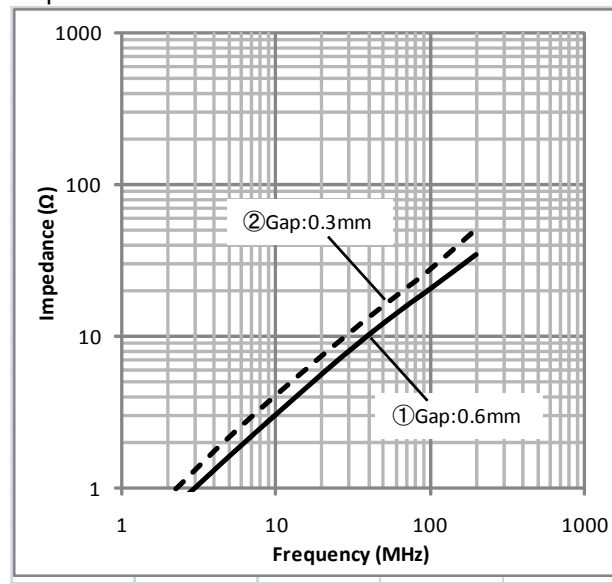
Please approve our product specifications or transact the approval sheet for product specifications before ordering

Frequency-characteristics of Impedance (reference).

Graph 1 FSSA 101005RNN\*0S



Graph 2 FSSA 151005RNN\*0S



Measuring conditions

Instruments : 4191A (or equivalent)

Measuring method : ①Gap:0.6mm ②Gap:0.3mm(Ref.)

※Gap=Cable thickness

Lead wire

P/N	①	②
FSSA1**	t0.6-L25mm	t0.3-L40mm

