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 〉

FS	SA	10	1	005	RN	N0	0	S
(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 (Averagevalue)
Permeability : μiac : 550 ± 30%
Curie temperature : Tc ≧ 130 °C
Electrical resistance: ρ≧ 10^5Ω・m
Adhesive tape Acrylic
Adhesive film FSSA******RNN00S : Acrylic
FSSA******RNN30S : Acrylic (UL510FR)

4. Use in the environment・Storage condition

Operating temperature : -25~85°C
Storage temperature : -25~85°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°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 5.0mm^2 maximum.(please see fig. 1)
If there is any doubt about the appearance, the limit sample shall be made.

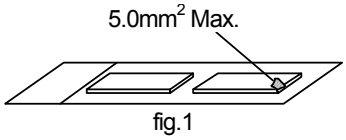
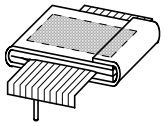
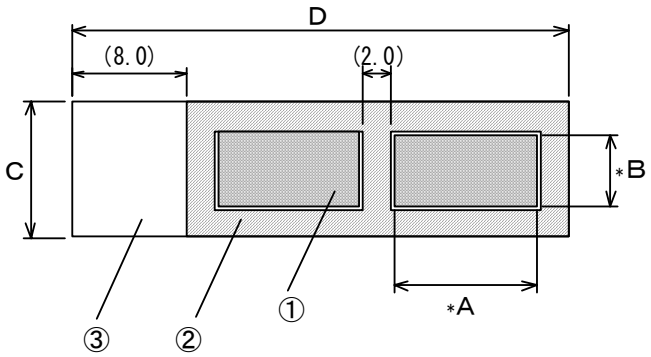


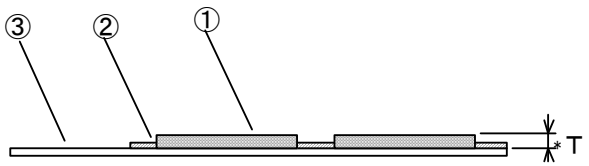
fig.1

7. Electrical Characteristic

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

8. Shape and Dimension





*The size of ferrite core Unit: mm

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)					

9. Inspection

9.1 Test condition

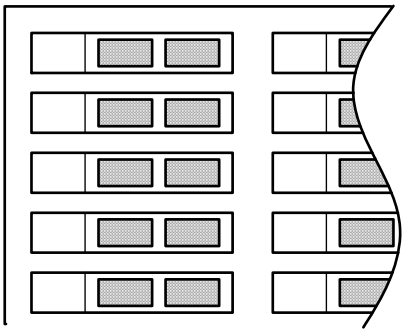
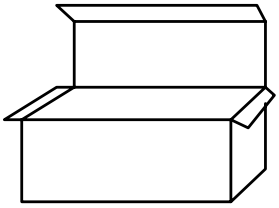
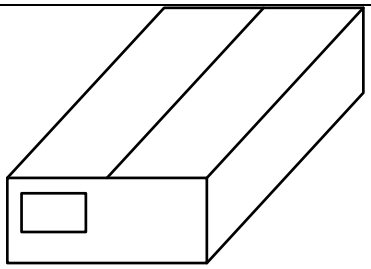
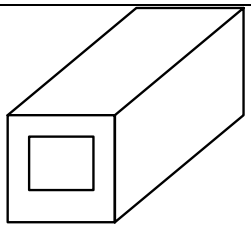
Characteristics shall be measured at 20±15°C, 85% RH under. If the measured value should be doubted, characteristics shall be measured at 23±2°C, 85% RH under again.

9.2 Inspection Level: ANSI/ASQC Z1.4-1993, Revel S-4, Normal, Single inspection.

Inspection item	Judgment	Measurement
Characteristic	n=10,Ac=0,Re=1	4191A (or equivalent)
Appearance	AQL 2.5%	Visual Inspection
Dimension	n=10,Ac=0,Re=1	Slide Calipers… etc.

10. Packing

・Basic packing

Minimum packing	Inner Case	Outer case
 fig.3 Inner sheet	【Packing A】  fig.4	 fig.5 Outer case (406×265×118mm) Inner casex5cases/Outer case
※Above Outer Case size is typical. When quantity is less than standard quantity, size or kind of outer case and inner case is changed if needed.	【Packing B】 None	 fig.6 Outer case (265×89×118mm)

・Quantity in package・mass

MURATA Part Number	Packing quantity (pc.)					Packing	Min. order qty. (pc.)	mass	
	Minimum packing			Inner case	Total quantity			unit (g/pc.)	total (kg/case)
	core	sheets	total						
FSSA101005RNN00S FSSA101005RNN30S	25	20	500	2,000	10,000	A	500	0.28	4.2
FSSA151005RNN00S FSSA151005RNN30S	25	20	500	-	2,000	B	500	0.43	1.5

・Marking for Outside package

Customer name Purchasing Order Number, Customer Part Number, MURATA part number, Inspection number(*1),RoHS Marking(*2), Quantity, etc

*1) « Expression of Inspection No. » $\underset{(1)}{\square\square}$ $\underset{(2)}{OOOO}$ $\underset{(3)}{\times\times\times}$

(1) Factory Code
(2) Date First digit : Year / Last digit of year
Second digit : Month / Jan. to Sep. → 1 to 9, Oct. to Dec. → O,N,D
Third, Fourth digit : Day
(3) Serial No.

*2) « Expression of RoHS Marking » ROHS – $\underset{(1)}{Y}$ ($\underset{(2)}{\triangle}$)

(1) RoHS regulation conformity parts.
(2) MURATA classification number

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_2, H_2S, NH_3, SO_2, NO_X, 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.

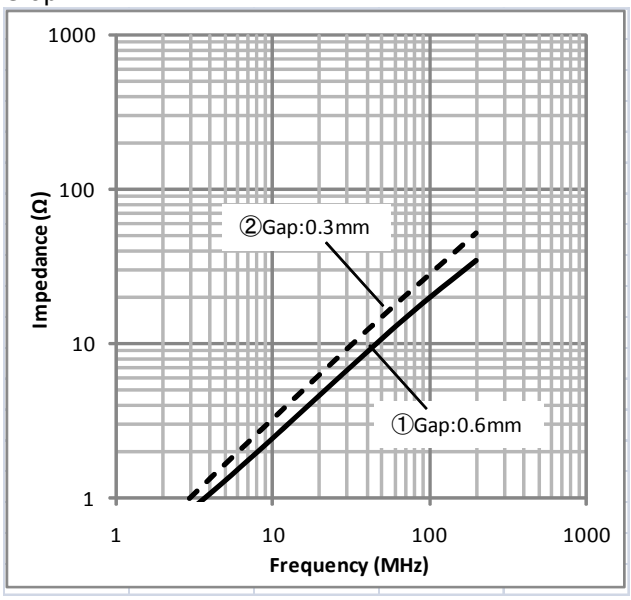
14. ⚠ Note:

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.

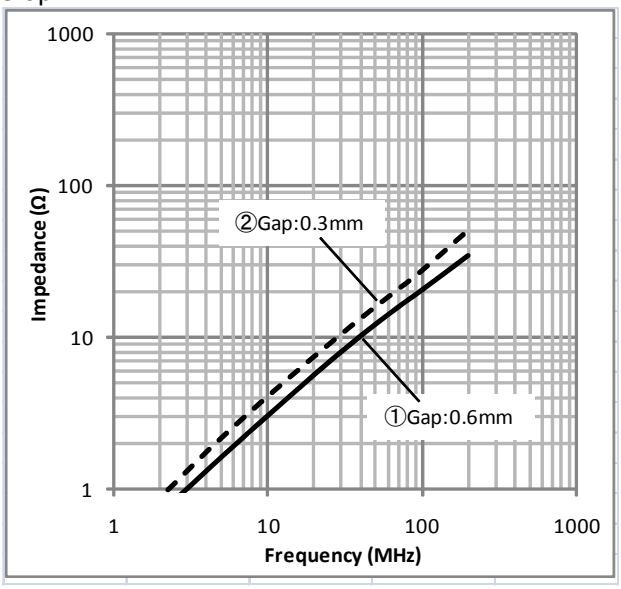
Please approve our product specifications or transact the approval sheet for product specifications before ordering

Frequency-characteristics of Impedance (reference).

Graph 1 ＦＳＳＡ１０１００５ＲＮＮ＊０Ｓ



Graph 2 ＦＳＳＡ１５１００５ＲＮＮ＊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

