

# Specification For Approval



<b>Item P/N</b>	SF1608N-SERIES	<b>Test Instrument</b>	E4991 / 4339
<b>Product</b>	SMD Inductance for NFC	<b>Test Frequency</b>	7.9 MHz / 0.5V

Customer : \_\_\_\_\_

Customer P/N : \_\_\_\_\_

Description :                     SMD Inductance for NFC                    

HT P/N :                                     SF1608N-SERIES                                    

Revision No. :                                     Version: 1.0                                    

Date : \_\_\_\_\_

Notes :                                     Standard                                    



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IATF 16949:2016 / ISO 9001:2015 / ISO 14001:2015

Ht Documented		Customer Approval
Approved	Jack	
Checked	George	
Prepared	Cherrie	

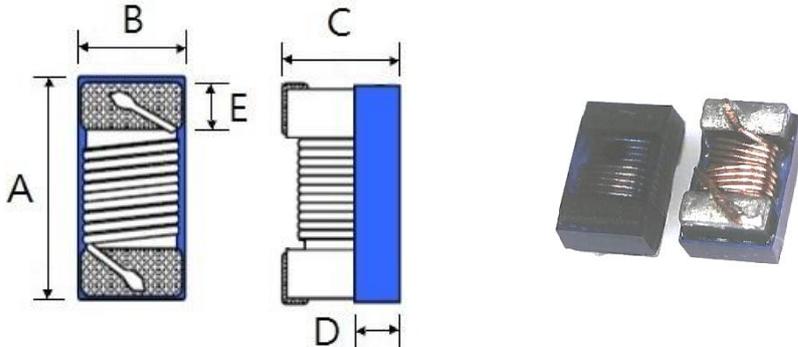


# Specification



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## ■ Style and Dimensions (mm)



SF1608	Dimensions
A	1.80 MAX
B	1.20 MAX
C	1.10 MAX
D	0.45 Ref.
E	0.33 ± 0.1

## ■ Explanation Of Part Numbers

①    ②    ③    ④    ⑤  
 SF 1608 N - R14 J

- ① Product name
- ② Shapes and dimensions
- ③ Material
- ④ Inductance 【at 7.9MHz】 R14 : 0.14μH
- ⑤ Tolerance : J=±5% ; K=±10% ; M=±20%

## ■ Electrical Characteristics

P/N	Inductance (μH)	Q/MHz	SRF (MHz)	DCR (Ω)	I dc (mA)	Color
	at 7.9 MHz	Typ.	Typ.	Max.	Max.	Coding
SF1608N-R14□	0.14/7.9	12/7.9	103	0.06	650	ND.
SF1608N-R27□	0.27/7.9	15/7.9	350	0.29	650	ND.
SF1608N-R33□	0.33/7.9	14/7.9	620	0.25	1000	ND.
SF1608N-R68□	0.68/7.9	15/7.9	685	0.38	950	ND.
SF1608N-R82□	0.82/7.9	15/7.9	625	0.48	800	ND.
SF1608N-1R0□	1.0/7.9	15/7.9	570	0.55	750	ND.
SF1608N-1R2□	1.2/7.9	14/7.9	535	0.60	700	ND.

※Operating temperature : -40 to +125°C

Storage temp. and humidity: Less than 40°C and 60% RH.

If Use Wave soldering is there will be some risk.

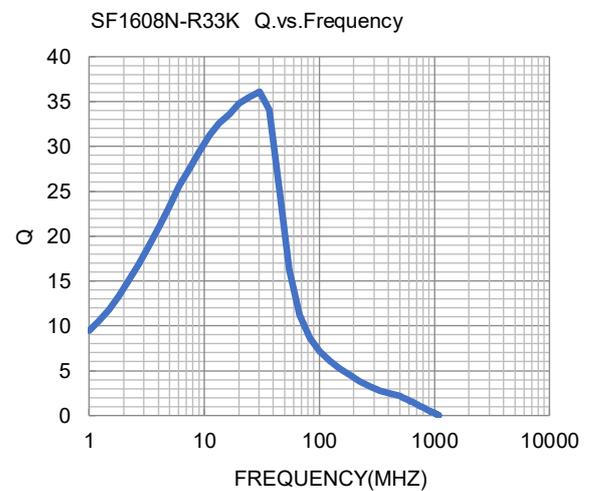
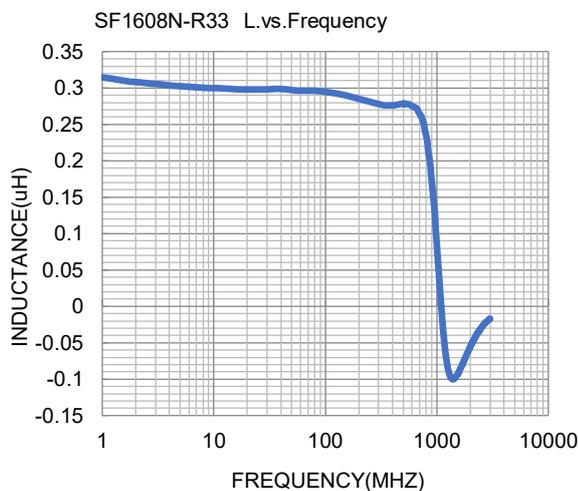
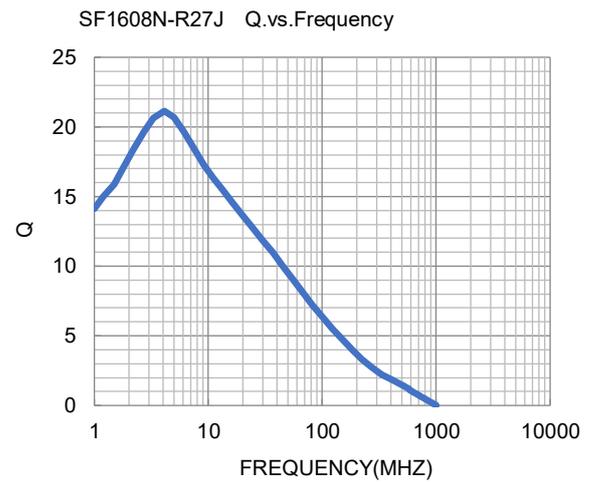
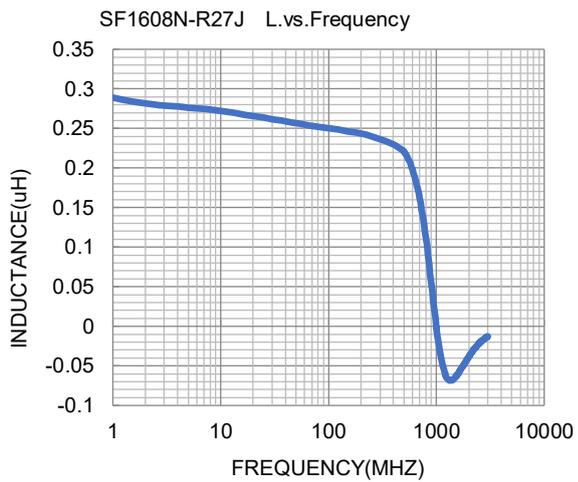
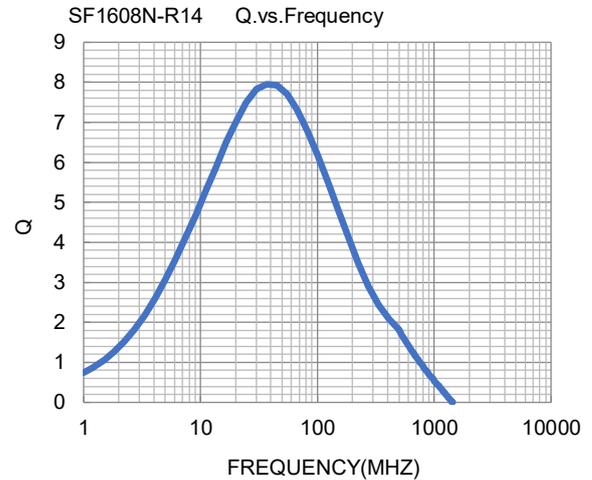
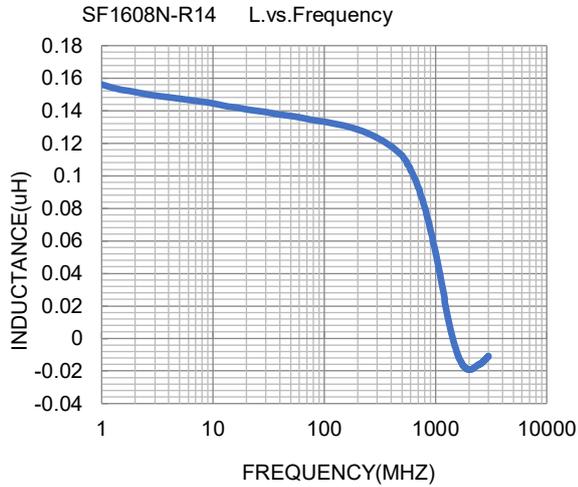
Re-flow soldering temperatures below 240 degrees, there will be unwitting risk.

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## ■ Performance Curves

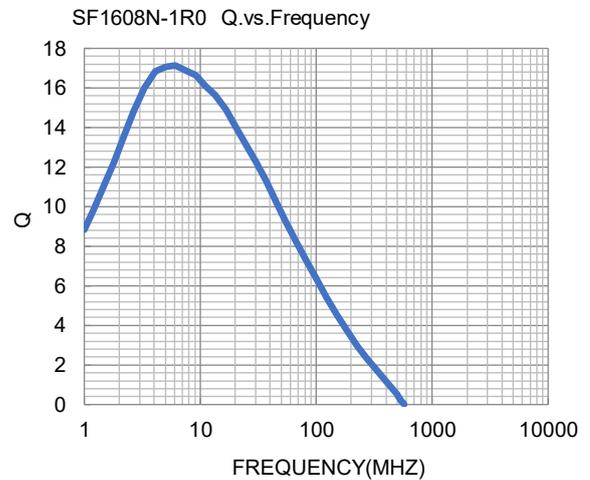
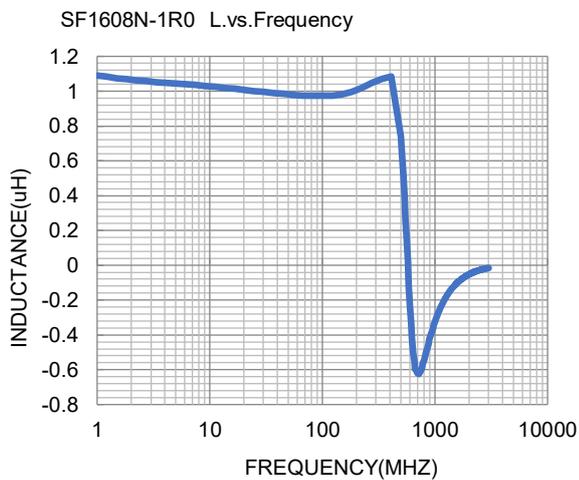
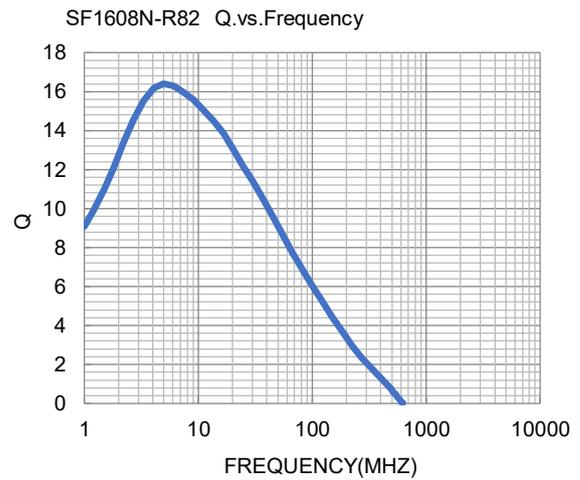
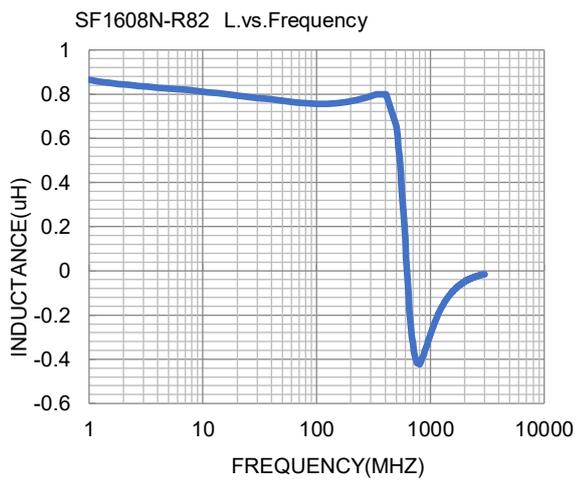
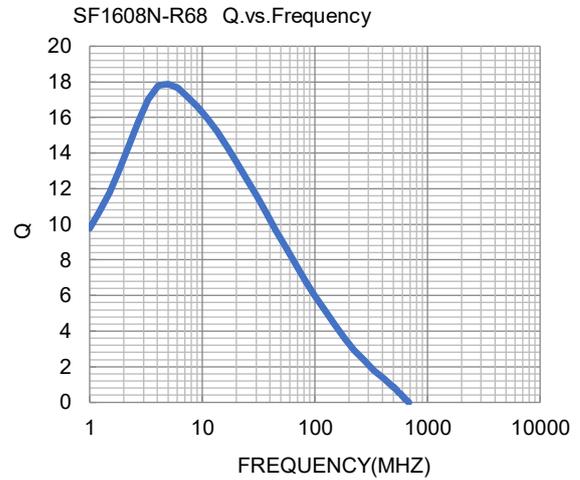
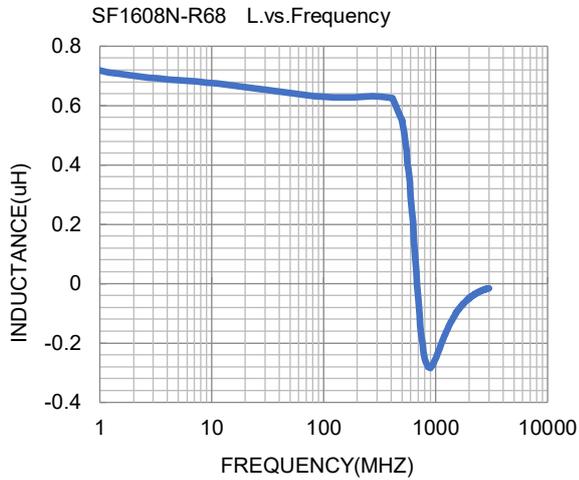


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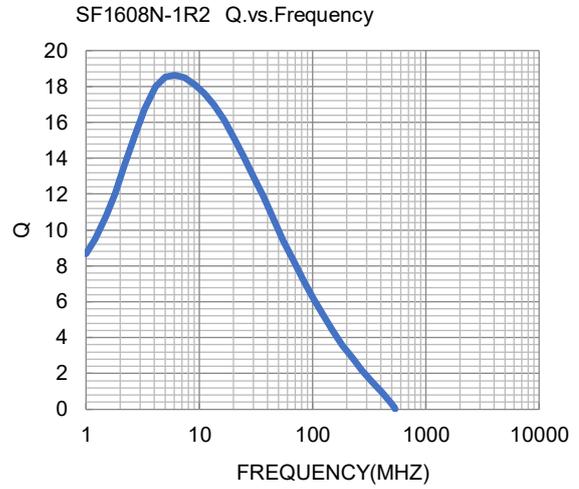
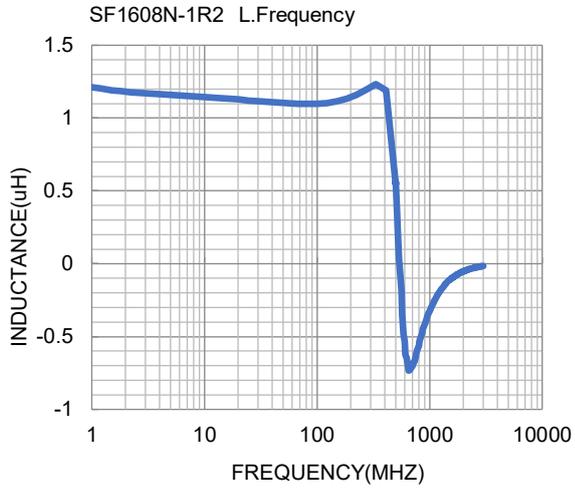


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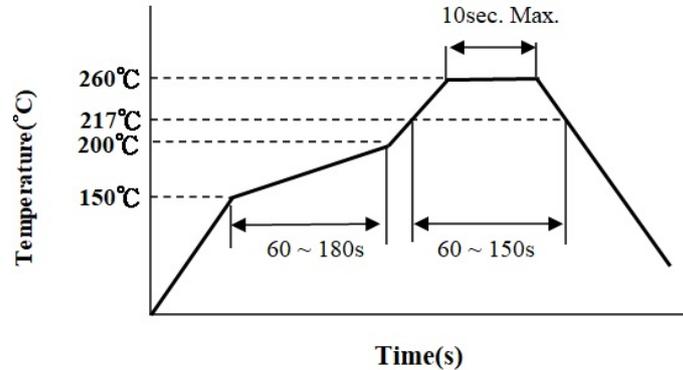


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## ■ Recommended Soldering Temp. Graph



## ■ Mechanical Reliability

TEST	Specification & Requirement	Method Used
Solderability	The metalized area must have 90% minimum solder coverage.	Solder temperature: $245 \pm 5^{\circ}\text{C}$ Soldering time: $4 \pm 1$ sec
Resistance to soldering heat		Solder temperature: $260 \pm 5^{\circ}\text{C}$ Soldering time: $10 \pm 1$ sec
Temperature cycle	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Step1. $30 \pm 5$ minutes at $-40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Step2. $30 \pm 5$ minutes at $+125^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Total 100 continuous cycles Measurement to be made after keeping at room temperature for $24 \pm 2$ hours
High Temp Exposure		Temperature: $125 \pm 5^{\circ}\text{C}$ Test duration: $250 \pm 12$ hours Measurement to be made after keeping at room temperature for $24 \pm 2$ hours
Humidity	Inductors must not have a shorted or open winding.	Humidity: $85 \pm 5\%$ R.H Temperature: $85 \pm 5^{\circ}\text{C}$ Test duration: $250 \pm 12$ hours Measurement to be made after keeping at room temperature for $24 \pm 2$ hours

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## ■ Iron Soldering

Use a solder iron of less than 30W when soldering, do not allow the soldering iron to directly touch the Ceramic body outside of terminal electrode, 4 seconds max. at 260°C.

## ■ Attention in Case of Using

In case of using product, avoid following matters:

Splashing water or salt water

Dew condenses

Toxic gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammon)

Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.

## ■ Others

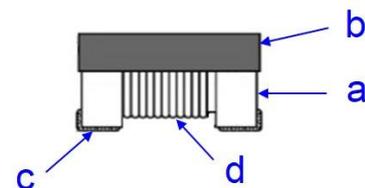
1 Operating temperature range: Ceramic Series: -40~+125°C

2 Storage condition: Temperature 20~25°C, Relative Humidity 40~60%

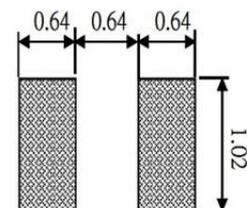
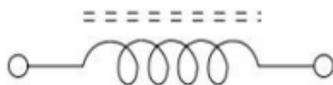
3 Recommended wire wound inductors should be used within 6 months from the time of delivery.

## ■ Product Composition Diagram

No.	Description	Specification
a.	Core	Ferrite Core
b.	Back Film	UV Resin
c.	Termination	Tin Pb Free
d.	Wire	Enameled Copper Wire



## ■ Recommended Footprint

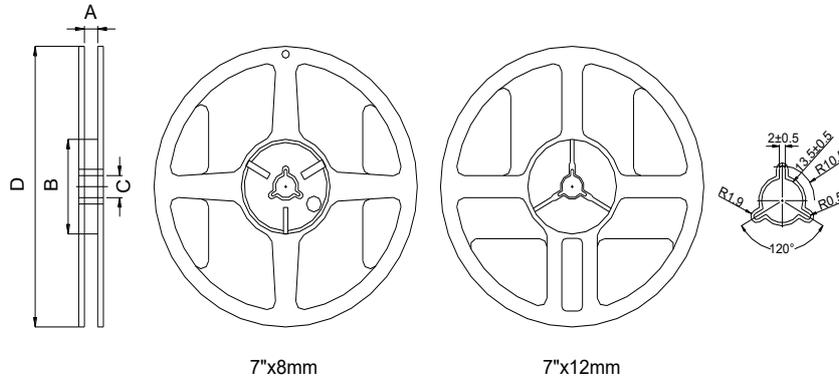


# Packing For SMD

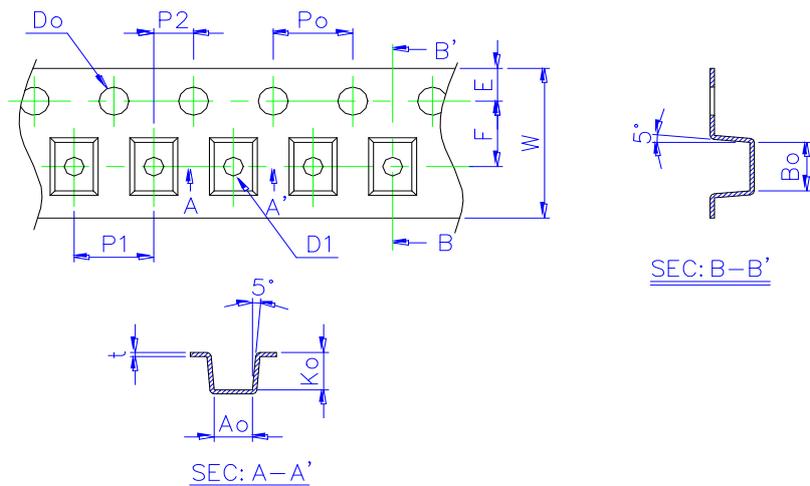


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## ■ Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	9.5±0.5	60±0.5	13.5±0.5	178±1
7"x12mm	13.7±0.5	60±0.5	13.5±0.5	178±1



Size	t(mm)	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	P2(mm)	Do(mm)
SF1608	0.22±0.05	1.22±0.05	1.45±0.05	0.96±0.05	8.00±0.20	1.75±0.10	3.50±0.05	4.00±0.05	4.00±0.10	2.00±0.05	1.50+0.1,-0

## ■ Packaging Quantity

Chip Size	1210	1608	2012	3216	3225	4532
7"/ Reel	3000	4000	2000	2000	1000	500