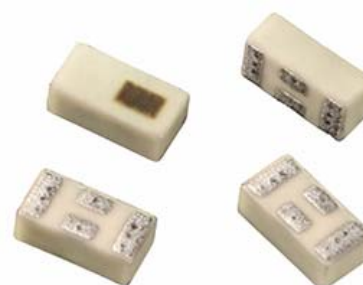


LF 1608 Series

Multilayer Chip Low-Pass Filters

Features

- ❖ Ultra small SMD type with low loss at pass-band and high attenuation at stop-band.
- ❖ RoHS compliant



Applications

- ❖ 0.6 ~2.7 GHz wireless communication systems.

Specifications

Part Number	Frequency Range (MHz)	Insertion Loss @ BW (dB)	Return Loss @ BW(dB)	Attenuation (dB)
LF1608-R1R6NDA_	600 ~ 2700	0.8 max.@25 °C 1.0 max.@-40~105 °C	10 min.	40 min. @ 3420~3570 MHz
				25 min. @ 5150~5960 MHz

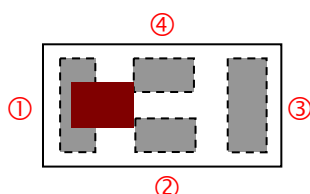
Q'ty/Reel (pcs)	: 4,000
Operating Temperature Range	: -40 ~ +105 °C
Storage Temperature Range	: -40 ~ +105 °C
Storage Period	: 12 months max.
Power Capacity	: 3W max.
MSL	: Level 1
ESD HBM	: ±2000V
Power Capacity	: 3W max

Part Number

LF 1608 - R 1R6 NDA □ /LF
 ① ② ③ ④ ⑤ ⑥ ⑦

① Type	LF : Low Pass Filter	② Dimensions (L × W)	1.6 × 0.8 mm
③ Material Code	R	④ Frequency Range	1R6=1600MHz
⑤ Specification Code	NDA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

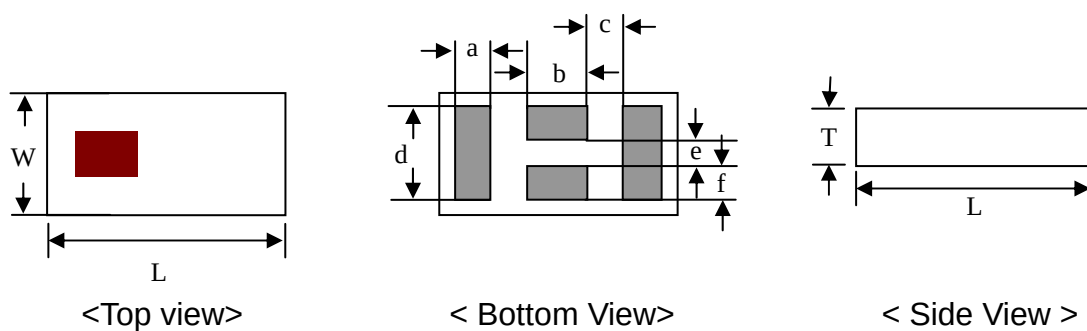
Terminal Configuration



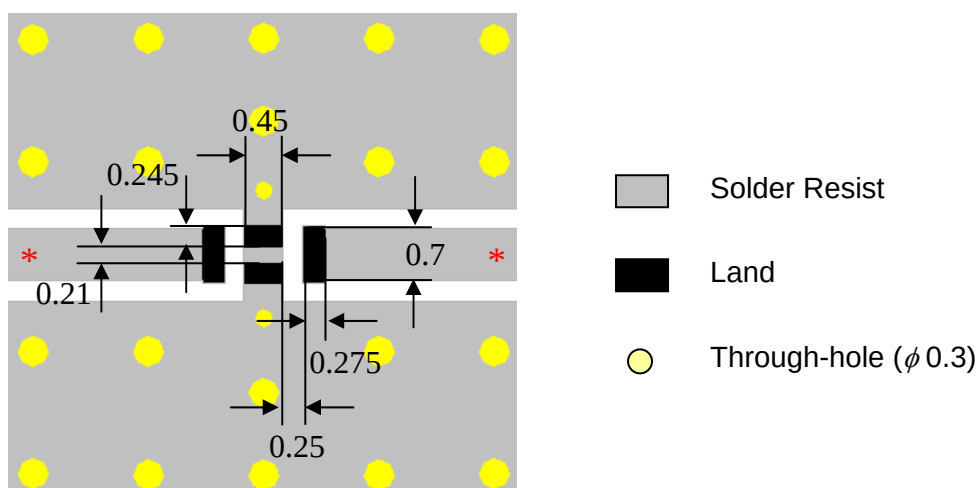
No.	Terminal Name	No.	Terminal Name
①	IN	③	OUT
②	GND	④	GND

Dimensions and Recommended PC Board Pattern

unit : mm

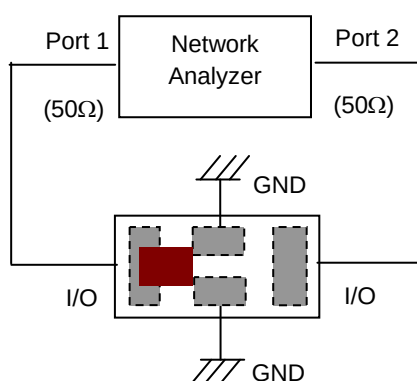


Mark	L	W	T	a	b	c	d	e	f
Dimensions	1.6 ± 0.15	0.8 ± 0.15	0.6 ± 0.1	0.225 ± 0.05	0.40 ± 0.1	0.30 ± 0.1	0.65 ± 0.1	0.21 ± 0.05	0.22 ± 0.05

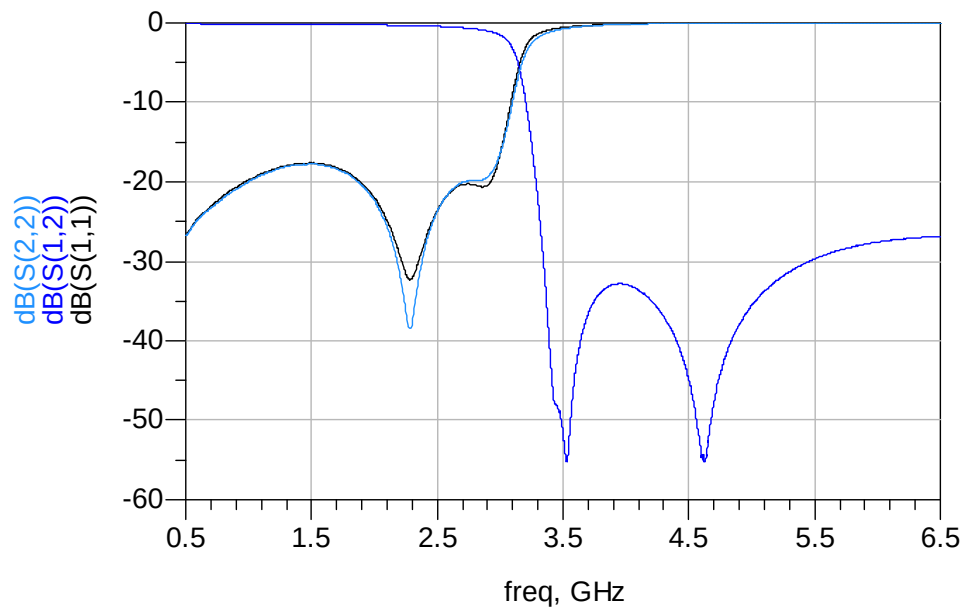


* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram



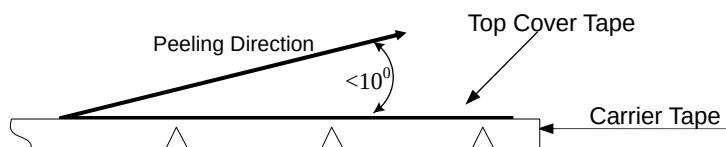
Typical Electrical Characteristics



Notes

- ❖ The contents of this data sheet are subject to change without notice. Please confirm the specifications and delivery conditions when placing your order.

❖ Peel-off Force



Peel-off force should be in the range of 0.1 – 0.6 N at a peel-off speed of 300 ± 10 mm/min .

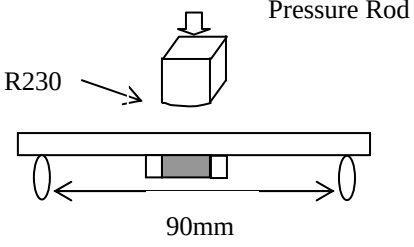
❖ Storage Conditions

- (1) Temperature: 5 ~35°C , relative humidity (RH): 45~75%.
- (2) Non-corrosive environment.

Notes

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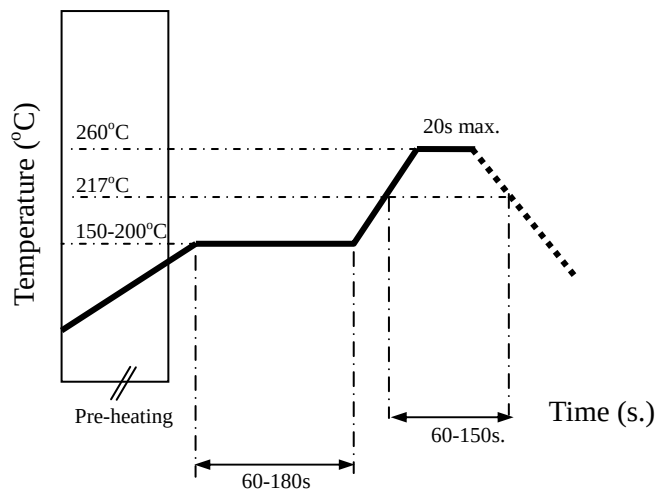
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	- No apparent damage - More than 95% of the terminal electrode shall be covered with new solder.	- Preheat: $120 \pm 5^{\circ}\text{C}$ - Solder: $245 \pm 5^{\circ}\text{C}$ for 5 ± 1 sec
Soldering strength (Termination Adhesion)	5N minimum	- Solder specimen onto test jig. - Apply push force at 0.5mm/s until electrode pads are peeled off or ceramic are broken. Pushing force is applied to longitude direction.
Deflection (Substrate Bending)	No apparent damage	- Solder specimen onto test jig (FR4, 1.6 mm) using the recommend soldering profile. - Apply a bending force of 2mm deflection. 
Heat/Humidity Resistance	- No apparent damage - Fulfill the electrical specification after test	- Temperature: $85 \pm 2^{\circ}\text{C}$ - Humidity: 90% ~ 95% RH - Duration: 1000 ± 48hrs - Recovery: 1-2hrs
Thermal shock (Temperature Cycle)	- No apparent damage - Fulfill the electrical specification after test	- One cycle/step 1 : $125 \pm 5^{\circ}\text{C}$ for 30 min step 2 : $-40 \pm 5^{\circ}\text{C}$ for 30 min - No of cycles : 100 - Recovery: 1-2 hrs
Low Temperature Resistance	- No apparent damage - Fulfill the electrical specification after test	- Temperature: $-40 \pm 5^{\circ}\text{C}$ - Duration: 500 ± 24hrs - Recovery: 1-2hrs

Soldering Conditions

❖ Typical Soldering Profile for Lead-free Process

Reflow Soldering :



Notes

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