BF 1608 Series

Multilayer Chip Band-Pass Filters

ACX
Advanced Ceramic X

Features

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



Applications

❖ Mobile communication systems.

Target Specifications (25°C)

Part Number	Freq.Range (MHz)	Insertion Loss @ BW(dB)	Return Loss @ BW(dB)	Frequency (MHz)	Attenuation (dB)
BF1608-L3R8NAC-P_	3300 ~ 4200	1.35 typ./1.7 max	13 typ./ 10 min.	100 ~ 2570	47 typ./35 min.
				2170	49 typ./40 min.
				2620 ~ 2690	28 typ./25 min.
				5150 ~ 5950	26 typ./20 min.
				6600 ~ 8400	35 typ./27 min.
				9900 ~ 12600	33 typ./27 min.

Target Specifications (-40~105°C)

Part Number	Freq.Range (MHz)	Insertion Loss @ BW(dB)	Return Loss @ BW(dB)	Frequency (MHz)	Attenuation (dB)
BF1608-L3R8NAC-P_	3300 ~ 4200	1.9 max.	10 min.	100 ~ 2570	35 min.
				2170	40 min.
				2620 ~ 2690	25 min.
				5150 ~ 5950	20 min.
				6600 ~ 8400	27 min.
				9900 ~ 12600	27 min.

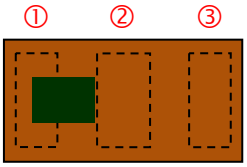
Q'ty/Reel (pcs) : 4,000
Operating Temperature Range : -40 ~ +105 °C
Storage Temperature Range : -40 ~ +105 °C
Storage Period : 12 months max.
Power Capacity : 4W max.

Part Number

BF	1608	-	L	3R8	NAC-P	□	/LF
①	②		③	④	⑤	⑥	⑦

① Type	BF : Band-Pass Filter	② Dimensions (L × W)	1.6 × 0.8 mm
③ Material Code	L	④ Frequency Range	3R8=3800MHz
⑤ Specification Code	NAC-P	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

Terminal Configuration

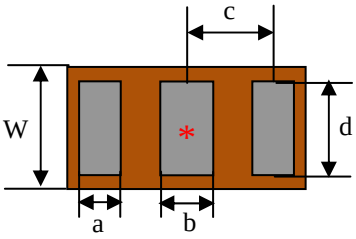


< Top View >

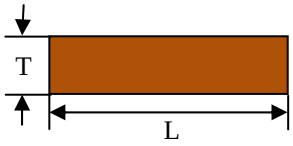
No.	Terminal Name	No.	Terminal Name
①	IN/OUT	③	IN/OUT
②	GND		

Dimensions and Recommended PC Board Pattern

unit : mm



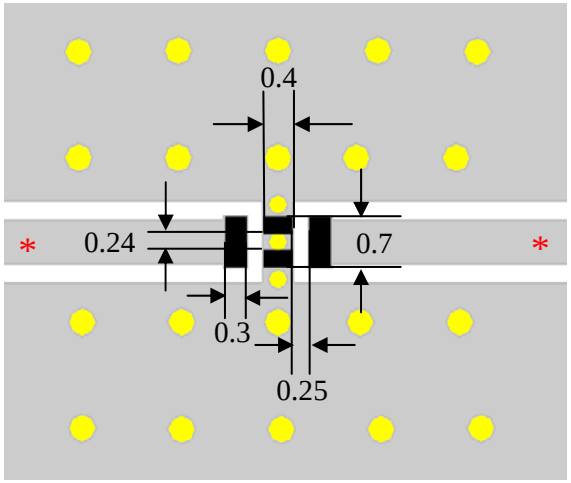
< Bottom View >



< Side View >

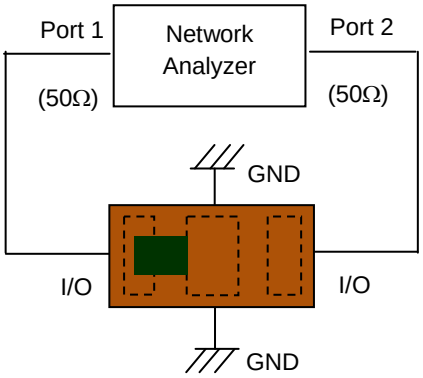
*Electrode material: Ni/Sn

Mark	L	W	T	a	b	c	d
Dimensions	1.6 ±0.1	0.8 ±0.1	0.35 max.	0.3 ± 0.1	0.4 ± 0.1	0.6 ± 0.1	0.7 ± 0.1

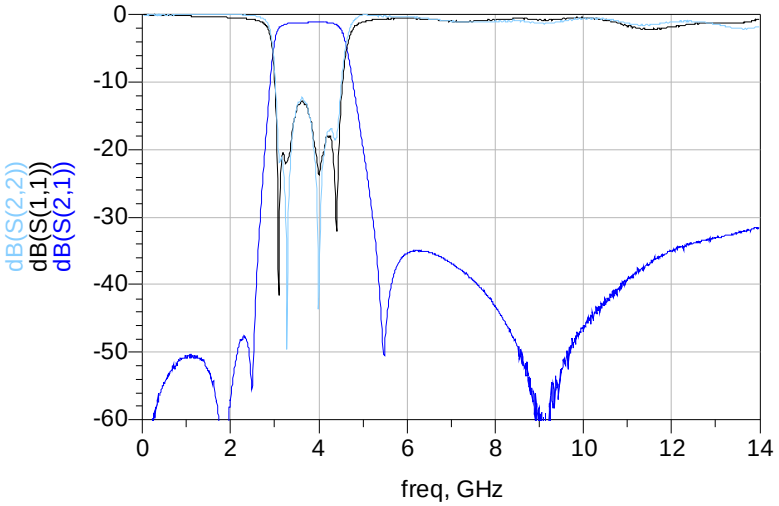


* Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

Measuring Diagram



Electrical Characteristics (T=25°C)

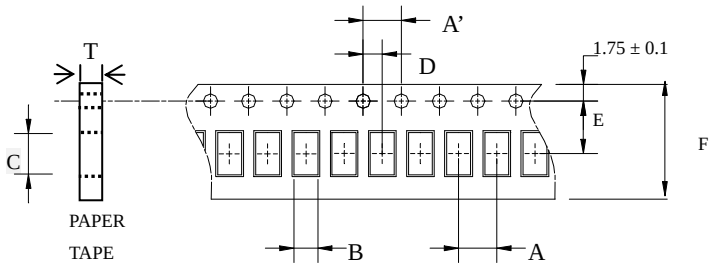


Notes

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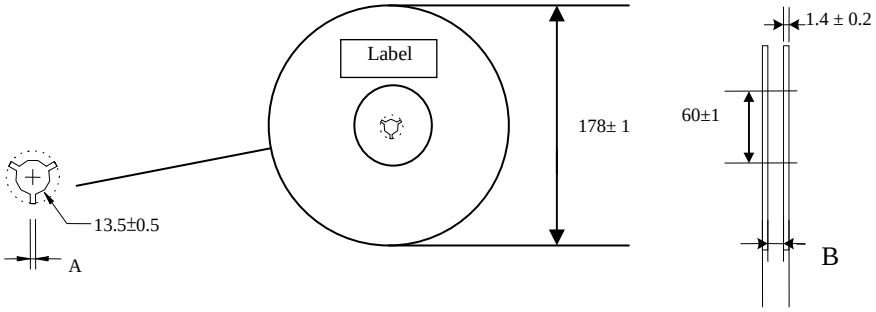
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
1608	4.0± 0.1	4.0± 0.1	0.95± 0.1	1.80± 0.1	2.0± 0.1	3.5± 0.1	8.0± 0.1	0.60± 0.03	4,000pcs	Paper

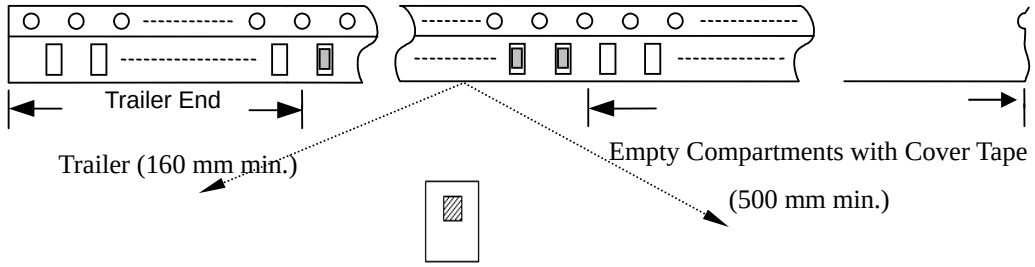
❖Reel Dimensions (Unit: mm)



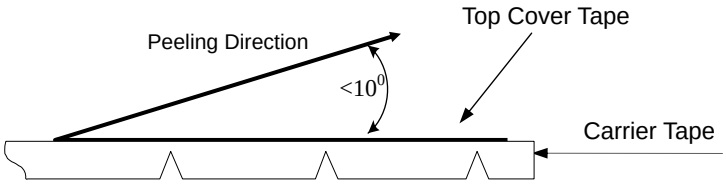
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
1608	2.3±0.5	9.0±0.3

❖Leader and Trailer Tape



❖**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 .

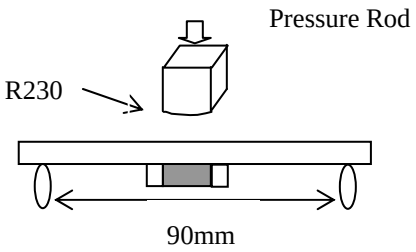
❖**Storage Conditions**

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

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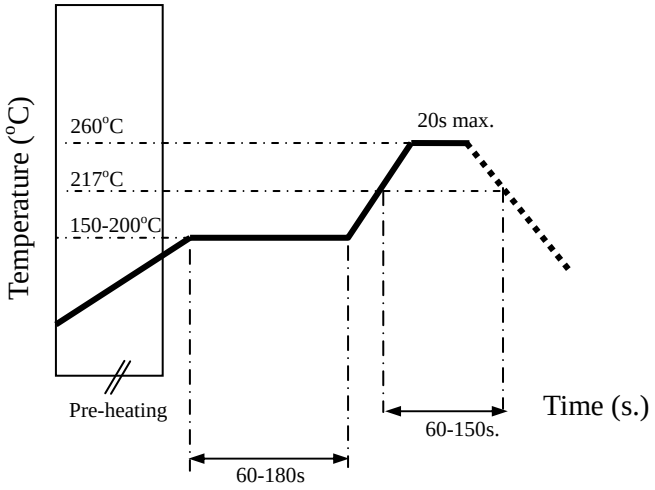
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	1. No apparent damage 2. More than 95% of the terminal electrode shall be covered with new solder	1. Preheat: 120± 5 °C 2. Solder: 245± 5°C for 5± 1 sec
Soldering strength (Termination Adhesion)	1. 10N minimum	1. Solder specimen onto test jig. 2. 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)	1. No apparent damage	1. Solder specimen onto test jig (FR4, 1.6mm) using the recommend soldering profile. 2. Apply a bending force of 2mm deflection 
Heat/Humidity Resistance	1. No apparent damage 2. Fulfill the electrical specification after test	1. Temperature: 85± 2°C 2. Humidity: 90% ~ 95% RH 3. Duration: 1000±48hrs 4. Recovery: 1-2hrs
Thermal shock (Temperature Cycle)	1. No apparent damage 2. Fulfill the electrical specification after test	1. One cycle/step 1：125 ± 5°C for 30 min step 2：- 40 ± 5°C for 30 min 2. No of cycles：100 3. Recovery:1-2 hrs
Low Temperature Resistance	1. No apparent damage 2. Fulfill the electrical specification after test	1. Temperature: -40± 5 °C 2. Duration: 500 ±24hrs 3. Recovery: 1-2hrs

Soldering Conditions

❖**Typical Soldering Profile for Lead-free Process**

Reflow Soldering :



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