

BF1608 Series (Preliminary)

Multilayer Chip Band-Pass Filters

Features

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

Applications

- ❖ Wireless communication systems.

Target Specifications

Part Number	Frequency Range (MHz)	Insertion Loss @ BW (dB)	Ripple @ BW (dB)	VSWR @ BW	Group Delay (ps)	Frequency (MHz)	Attenuation (dB)
BF1608-A7R2NDA_	6240~8240	1.3 typ./ 2.35 max.	0.7 typ./ 1.8 max.	1.4 typ./ 2.0 max.	460 typ./ 1000 max.	2300 ~ 3800	44 typ./ 38 min.
						5150 ~ 5470	20 typ./ 17 min.
						5470 ~ 5725	10 typ./ 4 min.
						5725 ~ 5850	7 typ./ 2 min.
						5850 ~ 5925	5 typ./ 2 min.
						12500 ~ 16500	35 typ./ 30 min.
						18700 ~ 20000	43 typ./ 30 min.

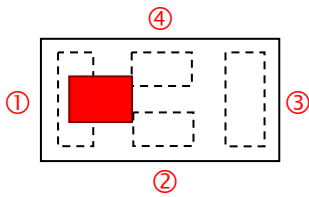
Q'ty/Reel (pcs) : 4,000
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 3W max.

Part Number

BF **1608** - **A** **7R2** **NDA** **□** **/LF**
 ① ② ③ ④ ⑤ ⑥ ⑦

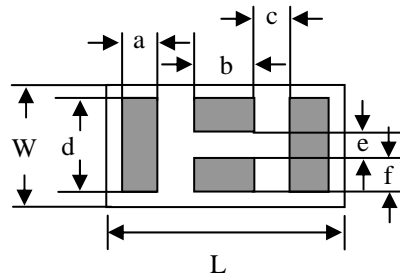
① Type	BF : Band Pass Filter	② Dimensions (L x W)	1.6 x 0.8 mm
③ Material Code	A	④ Frequency Range	7R2=7200MHz
⑤ Specification Code	NDA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

Terminal Configuration



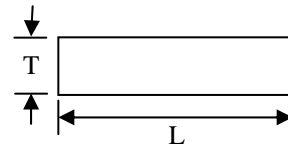
No.	Terminal Name	No.	Terminal Name
①	IN/OUT	③	IN/OUT
②	GND	④	GND

Dimensions and Recommended PC Board Pattern



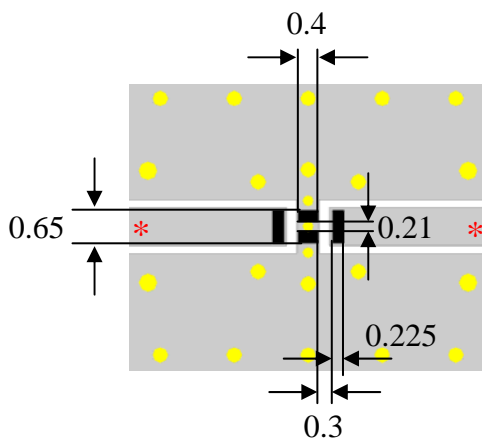
< Bottom View >

Unit : mm



< Side View >

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



- Solder Resist
- Land
- Through-hole (ϕ 0.2, 0.3)

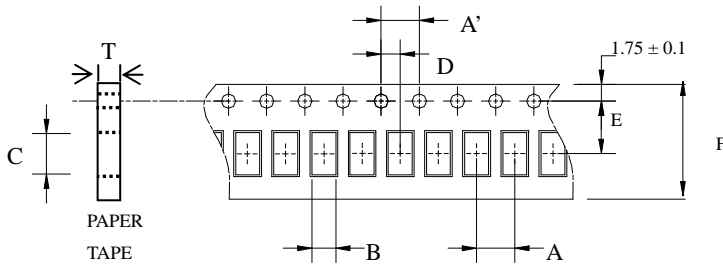
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Notes

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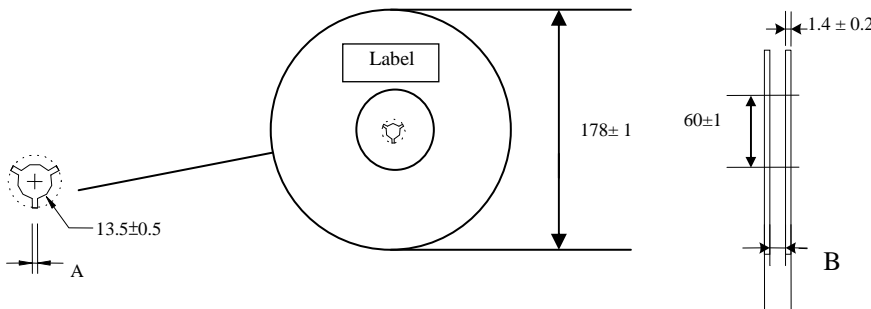
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
1608	4.0±	4.0±	1.10±	1.92±	2.0±	3.5±	8.0±	0.75±	4,000pcs	Paper
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05		

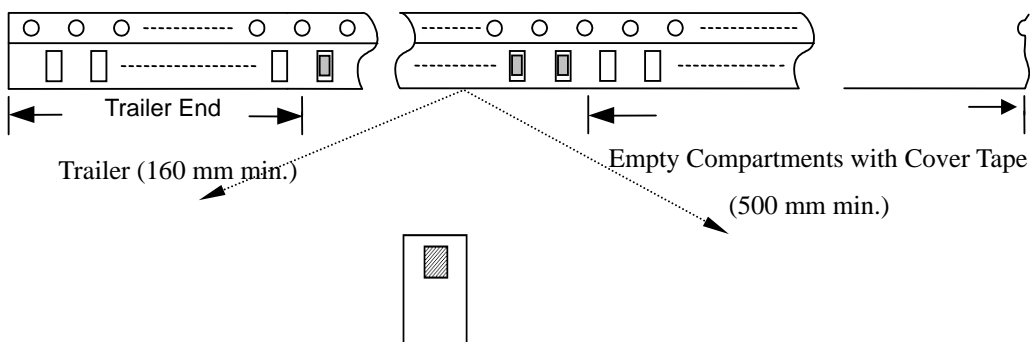
❖Reel Dimensions (Unit: mm)



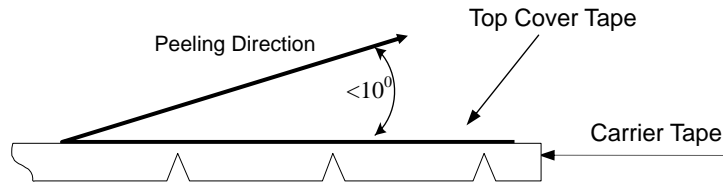
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

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 .

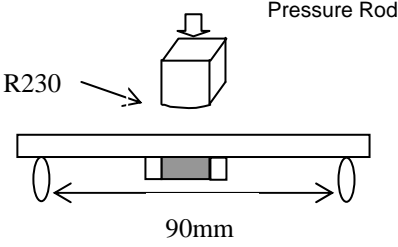
❖ **Storage Conditions**

- (1) Temperature: $5 \sim 35^{\circ}\text{C}$, relative humidity (RH): 45~75%.
- (2) Non-corrosive environment.

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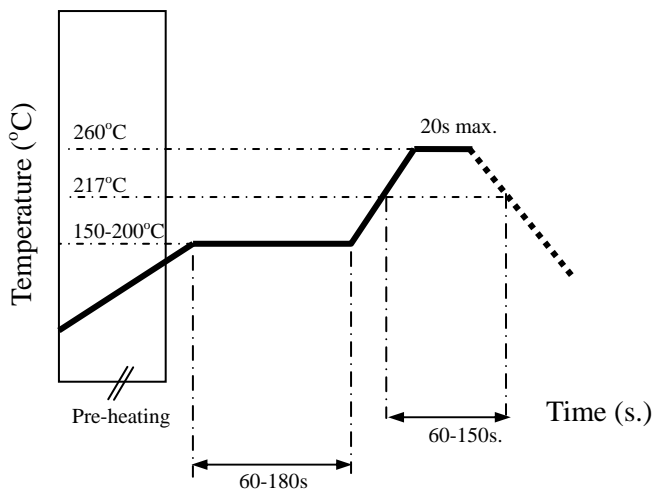
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	<ol style="list-style-type: none"> No apparent damage More than 95% of the terminal electrode shall be covered with new solder 	<ol style="list-style-type: none"> Preheat: $120 \pm 5^\circ\text{C}$ Solder: $245 \pm 5^\circ\text{C}$ for 5 ± 1 sec
Soldering strength (Termination Adhesion)	<ol style="list-style-type: none"> 10N minimum 	<ol style="list-style-type: none"> 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)	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification 	<ol style="list-style-type: none"> Solder specimen onto test jig (FR4, 1.6mm) using the recommend soldering profile. Apply a bending force of 2mm deflection 
Heat/Humidity Resistance	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> Temperature: $85 \pm 2^\circ\text{C}$ Humidity: 90% ~ 95% RH Duration: 1000 ± 48hrs Recovery: 1-2hrs
Thermal shock (Temperature Cycle)	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> No apparent damage Fulfill the electrical specification after test 	<ol style="list-style-type: none"> Temperature: $-40 \pm 5^\circ\text{C}$ Duration: 500 ± 24hrs Recovery: 1-2hrs

Soldering Conditions

❖ Typical Soldering Profile for Lead-free Process

Reflow Soldering :



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