

BF 2012 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

- ❖ 6.1GHz Wireless communication systems.

Target Specifications

Part Number	Freq. Range (MHz)	Insertion Loss @ BW(dB)	Ripple @ BW(dB)	Return Loss @ BW(dB)	Frequency (MHz)	Attenuation (dB)
BF2012-R6R1NAA_	5150 ~ 7125	2.6 max. @25°C 2.9 max. @-40~95°C	1.9 max. @25°C 2.2 max. @-40~95°C	10 min.	100 ~ 960	30 min.
					1166 ~ 1249	30 min.
					1427 ~ 1610	30 min.
					1695 ~ 2200	30 min.
					2300 ~ 2370	30 min.
					2400 ~ 2690	40 min.
					3300 ~ 3800	30 min.
					3800 ~ 4200	30 min.
					7737 ~ 8237	30 min. @25°C 26 min. @-40~95°C
					10300 ~ 14250	25 min.

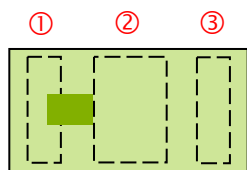
Q'ty/Reel (pcs) : 4,000
 Operating Temperature Range : -40 ~ +95 °C
 Storage Temperature Range : -40 ~ +95 °C
 Storage Period : 12 months max.
 Power Capacity : 1W max.

Part Number

BF 2012 - R 6R1 NAA □ /LF
 ① ② ③ ④ ⑤ ⑥ ⑦

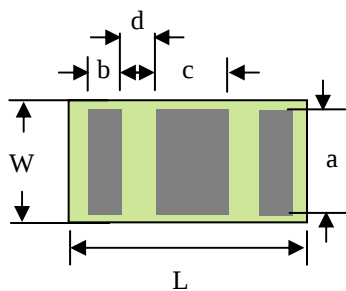
① Type	BF : Band-Pass Filter	② Dimensions (L × W)	2.0 × 1.25 mm
③ Material Code	R	④ Frequency Range	6R1=6100MHz
⑤ Specification Code	NAA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

Terminal Configuration

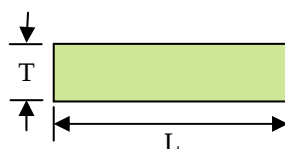


No.	Terminal Name	No.	Terminal Name
①	IN	③	OUT
②	GND		

Dimensions and Recommended PC Board Pattern



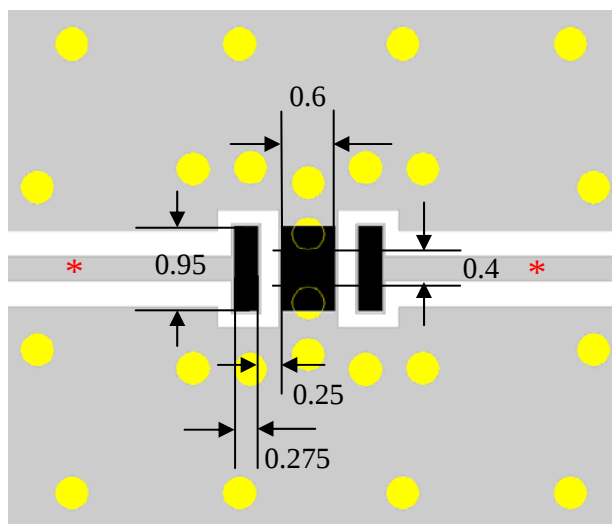
< Bottom View >



< Side View >

Unit : mm

Mark	L	W	T	a	b	c	d
Dimensions	2.0 ± 0.15	1.25 ± 0.10	0.7 max.	0.95 ± 0.1	0.275 ± 0.1	0.6 ± 0.1	0.25 ± 0.05



-  Solder Resist
-  Land
-  Through-hole (ϕ 0.35)

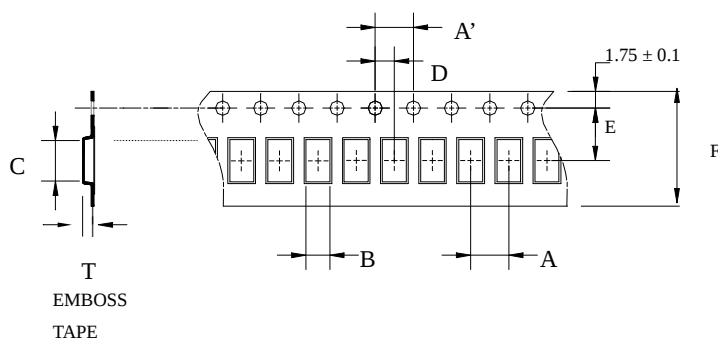
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Notes

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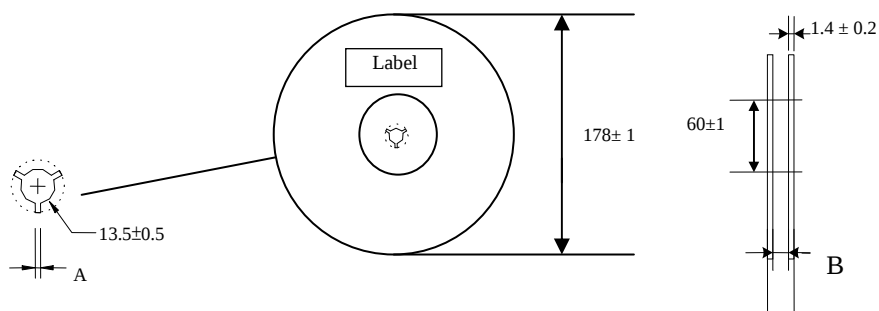
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2012	4.0±0.1	4.0±0.1	1.35±0.05	2.15±0.05	2.0±0.05	3.5±0.1	8.0±0.1	0.65±0.05	4,000pcs	Plastic (Embossed)

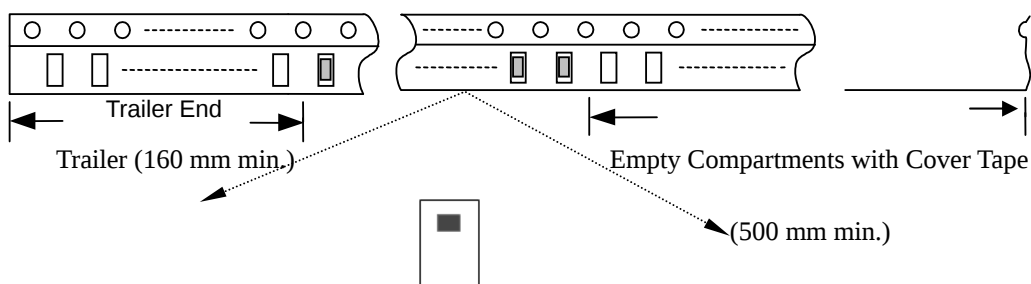
❖Reel Dimensions (Unit: mm)



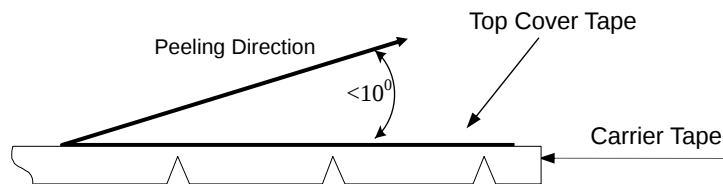
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
2012	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 .

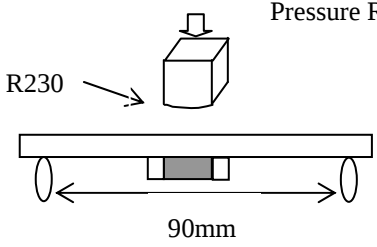
❖ Storage Conditions

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

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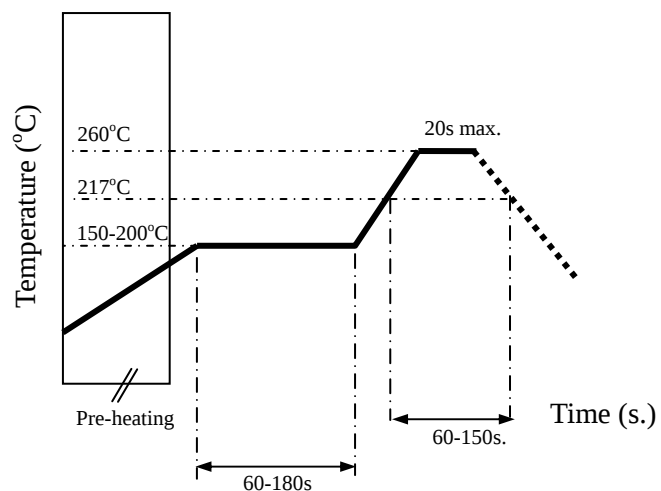
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	1. No apparent damage 2. More than 95% of the terminal electrode shall be covered with new solder	1. Preheat: $120 \pm 5^{\circ}\text{C}$ 2. Solder: $245 \pm 5^{\circ}\text{C}$ 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: $85 \pm 2^{\circ}\text{C}$ 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 : $125 \pm 5^{\circ}\text{C}$ for 30 min step 2 : $-40 \pm 5^{\circ}\text{C}$ 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: $-40 \pm 5^{\circ}\text{C}$ 2. Duration: 500 ± 24hrs 3. Recovery: 1-2hrs

Soldering Conditions

❖ Typical Soldering Profile for Lead-free Process

Reflow Soldering :



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