

BF2012 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

- ❖ 7.75~8.25 GHz wireless communication systems

Target Specifications

Part Number	Freq. Range (MHz)	Insertion Loss @BW(dB)	Return Loss @ BW(dB)	Group Delay (ps)	Frequency (MHz)	Attenuation (dB)
BF2012-R8R0DAA_	7750 ~ 8250	2.5 max.	10 min.	1200 max.	5170 ~ 7125	30 min.
					6000 ~ 7125	30 min.

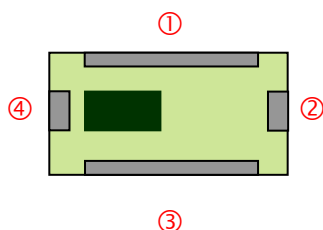
Q'ty/Reel (pcs) : 4000
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 3W max.

Part Number

BF 2012 - R 8R0 DAA □ /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	8R0=8000MHz
⑤ Specification Code	DAA	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	LF=lead-free		

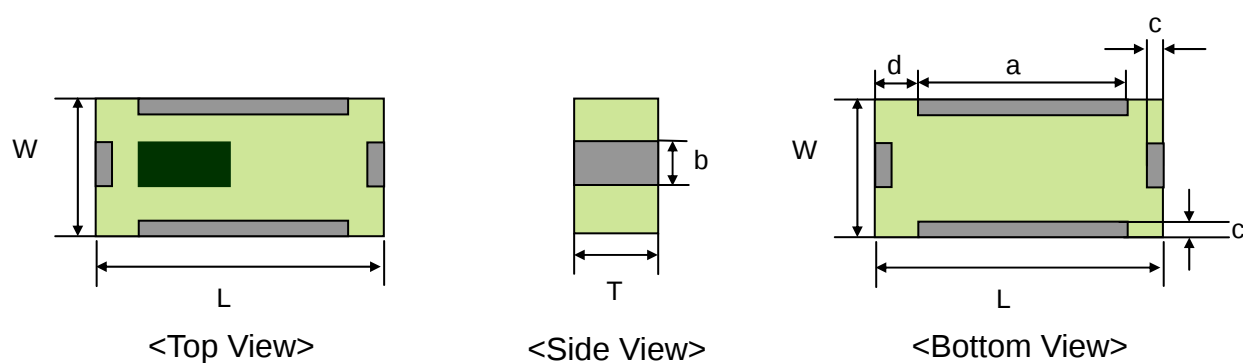
Terminal Configuration



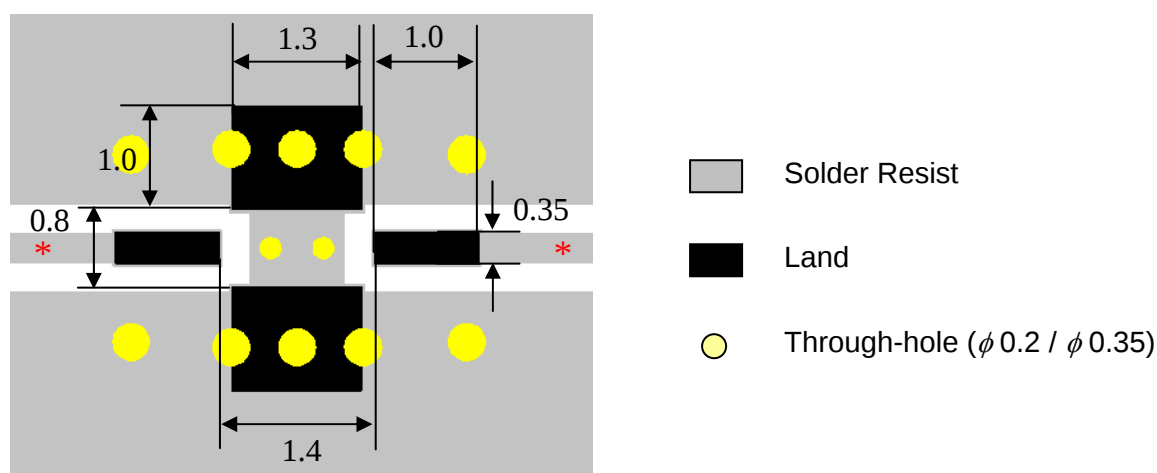
No.	Terminal Name	No.	Terminal Name
①	GND	③	GND
②	OUT	④	IN

Dimensions and Recommended PC Board Pattern

Unit : mm



Mark	L	W	T	a	b	c	d
Dimensions	2.0 ± 0.15	1.25 ± 0.10	0.95 ± 0.10	1.3 ± 0.15	0.3 ± 0.15	0.25 ± 0.15	0.35 ± 0.15



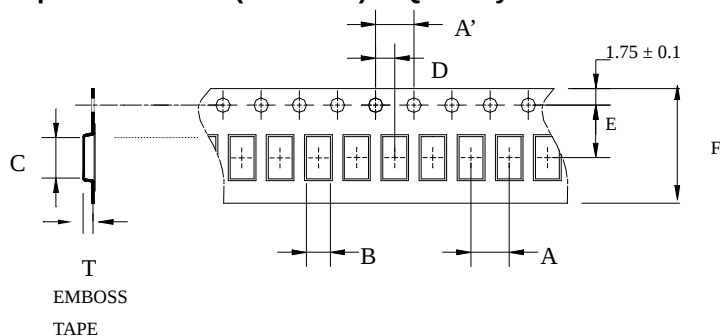
* Line width should be designed to match 50 Ω characteristic impedance, depending on PCB material and thickness.

Notes

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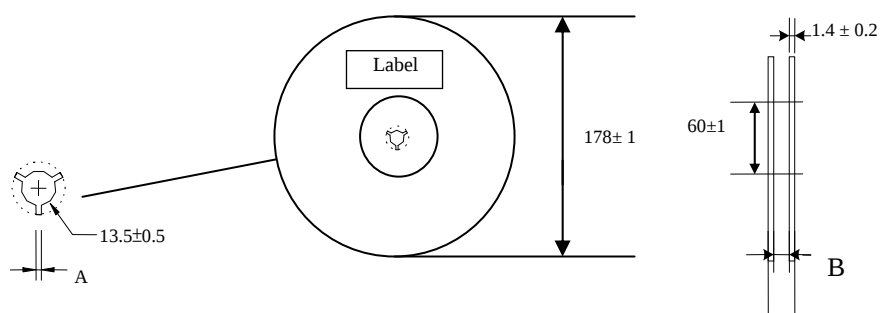
Taping Specifications

❖ Tape Dimensions (Unit: mm) & Quantity



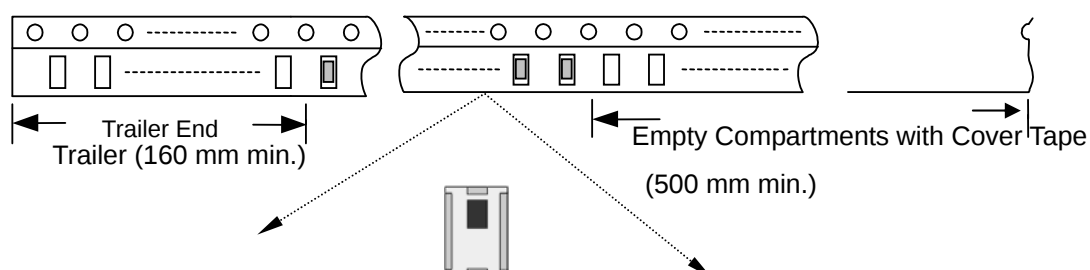
Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2012	4.0± 0.1	4.0± 0.1	1.35± 0.05	2.15± 0.05	2.0± 0.05	3.5± 0.1	8.0± 0.1	1.08± 0.05	4,000pcs	Plastic (Embossed)

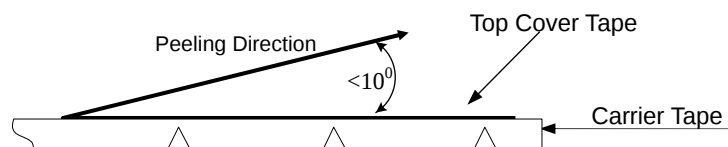
❖ Reel Dimensions (Unit: mm)



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 .

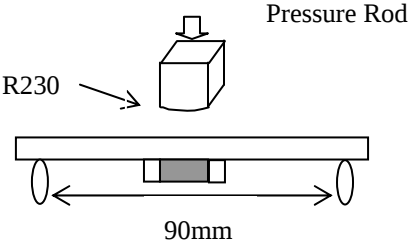
❖ Storage Conditions

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

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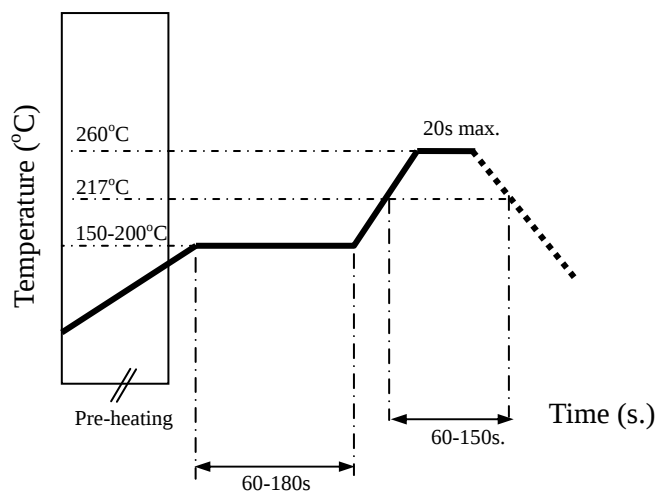
Mechanical & Environmental Characteristics

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)	10N 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 - Fulfill the electrical specification	- Solder specimen onto test jig (FR4, 1.6mm) 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 :



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