

BF 5532 Series(Preliminary)

Multilayer Chip Band-Pass Filters

Features

- ❖ Small SMD type with low loss at pass-band and high attenuation at stop-band.
- ❖ Plating Shielding-metal on component faces.
- ❖ HF & RoHS compliant.

Applications

- ❖ Wireless communication systems.

Specifications (at 25°C)

Average over each WLAN channel with band width of 80 MHz⁽¹⁾ /160MHz⁽²⁾.

Part Number	Freq. Range (WLAN) (MHz)	Insertion Loss @ WLAN channel (dB)	Ripple (dB)	VSWR	Frequency (MHz)	Attenuation (dB)
BF5532-R 5R5NUF_	5170 ~ 5895	3.2 max.	2.4 max.	2.0 max.	450 ~ 1900	45 min.
					1900 ~ 2400	45 min.
					2400 ~ 2690	45 min.
					3300 ~ 4200	33 min.
					4200 ~ 4400	25 min.
		2.7 max. ⁽¹⁾			6035 ~ 6055	26 min.
					6055 ~ 7000	45 min.
					7000 ~ 7125	45 min.
					7125 ~ 8500	45 min.
					10340 ~ 11790	52 typ.
		2.3 max. ⁽²⁾			15510 ~ 17685	28 typ.
					6025 ~ 6105	35 min. ⁽¹⁾
					6055 ~ 7125	45 min. ⁽¹⁾
					6025 ~ 7125	38 min. ⁽²⁾
					6035 ~ 7125	45 min. ⁽²⁾

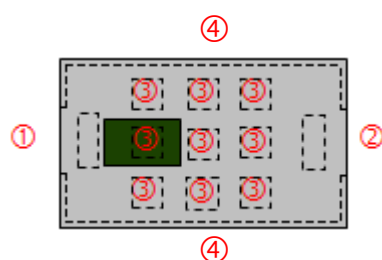
Q'ty/Reel (pcs) : 1000
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 3W max.

Part Number

BF 5532 - R 5R5 NUF □ /LF
① ② ③ ④ ⑤ ⑥ ⑦

① Type	BF : Band-Pass Filter	② Dimensions (L × W)	5.5 × 3.2 mm
③ Material Code	R	④ Frequency Range	5R5=5500MHz
⑤ Specification Code	NUF	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

Terminal Configuration

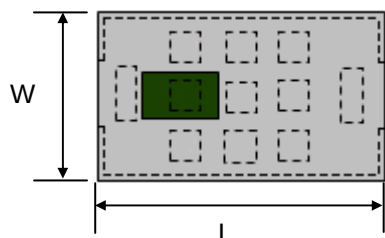


<Top View>

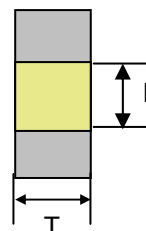
No.	Terminal Name	No.	Terminal Name
①	IN/OUT	③	GND
②	OUT/IN	④	GND

Dimensions and Recommended PC Board Pattern

Unit : mm



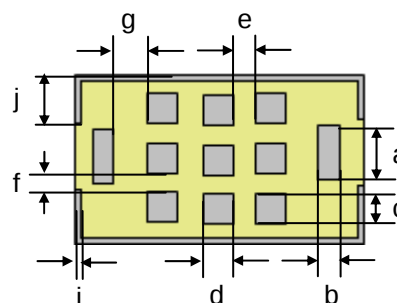
<Top View>



<Side View>



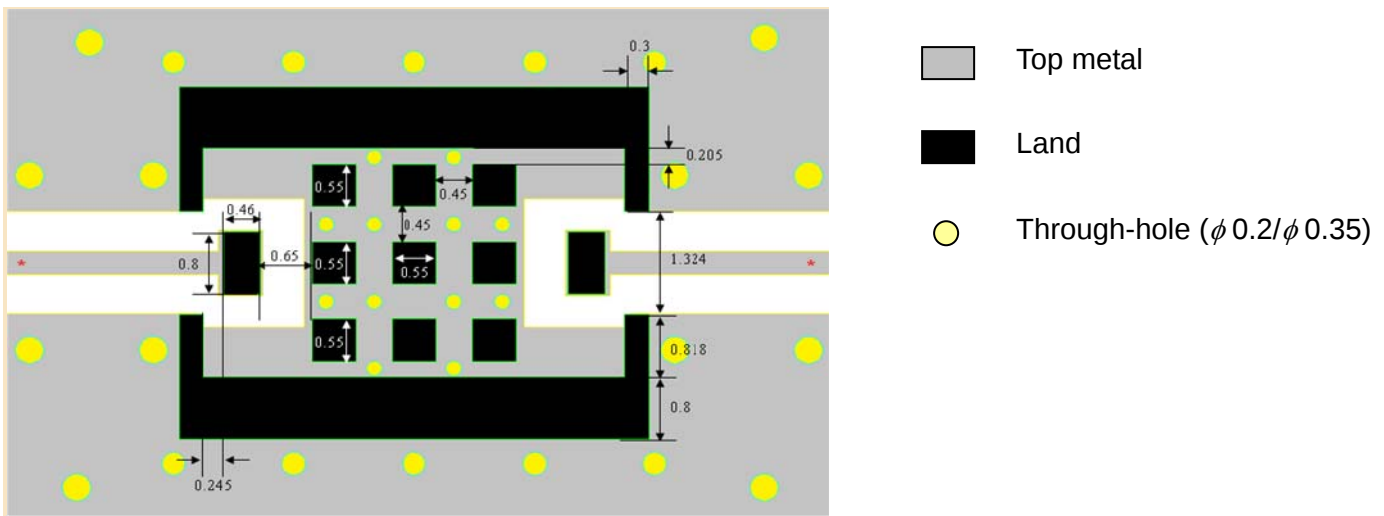
<Side View>



<Bottom View>

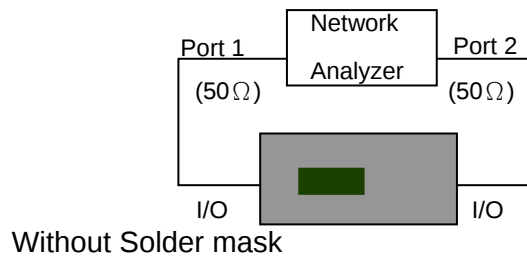
[illegible]

Mark	i	j
Dimensions	0.25 max.	1.2 max.



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

Measuring Diagram

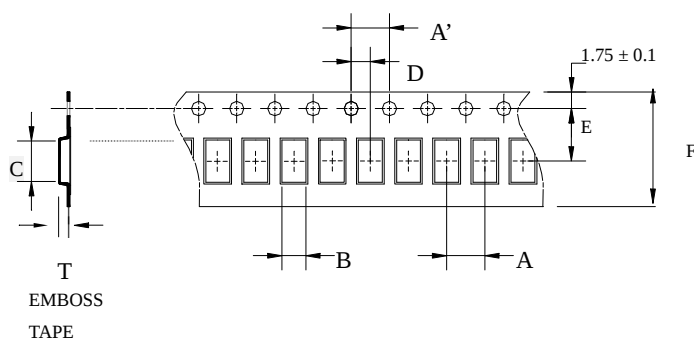


Notes

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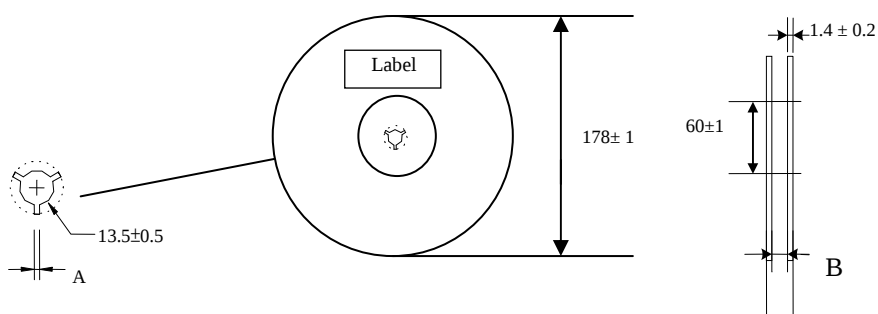
Taping Specifications

❖Tape & Reel Dimensions (Unit: mm)



Type	A	A'	B	C	D	E	F	T	Quantity/per reel	Tape material
5532	8.0± 0.1	4.0± 0.1	3.50± 0.1	5.80± 0.1	2.0± 0.1	5.5± 0.1	12.0± 0.1	2.2± 0.10	1,000pcs	Plastic (Embossed)

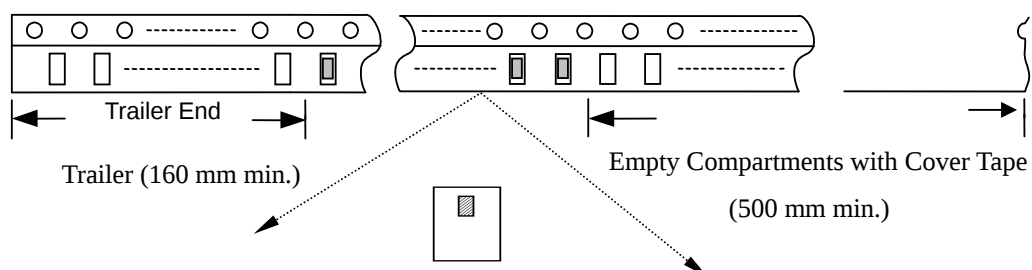
❖Reel Dimensions (Unit: mm)



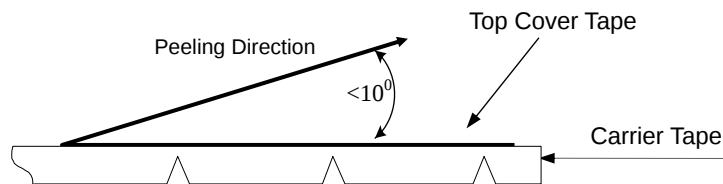
Label: Customer's Name,
ACX P/N, Q'ty, Date,
ACX Corp.

Type	A	B
5532	2.3±0.5	17.0±0.5

❖Leader and Trailer Tape



❖ Peel-off Force



Peel-off force should be in the range of 0.2N – 1.2N at a peel-off speed of 300 ± 10 mm/min .

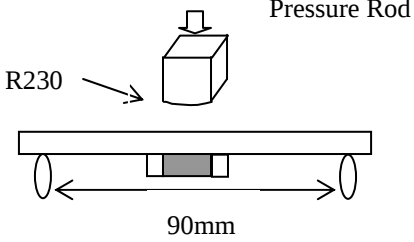
❖ Storage Conditions

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

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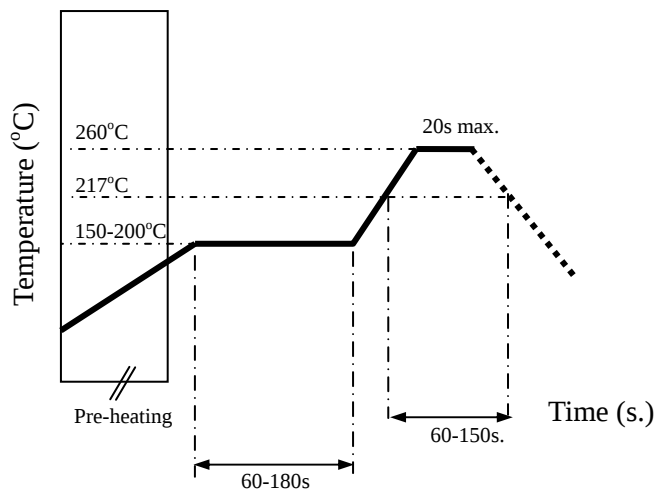
Mechanical & Environmental Characteristics

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	- Solder specimen onto test jig (FR4, 1.6mm) using the recommend soldering profile. - Apply a bending force of 1 mm 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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