

BF 3225 Series

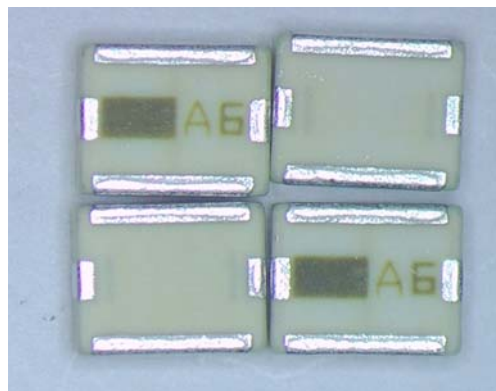
Multilayer Chip Band-Pass Filters

Features

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

Applications

- ❖ 5.17~5.835 GHz Wireless communication systems.



Specifications

Part Number	Freq. Range (MHz)	Insertion Loss @ BW (dB)	Ripple @ BW (dB)	VSWR @ BW	Frequency	Attenuation (dB)
BF3225-R5R5DAP_	5170 ~5835	1.7 typ. / 2.5 max.	0.9 typ. / 2.0max.	1.6 typ. / 2.0 max.	2400 ~ 2500MHz	34 typ. / 25 min.
					6095 ~ 7125MHz	32 typ. / 30 min.
					10340 ~11670MHz	35 typ. / 20 min.

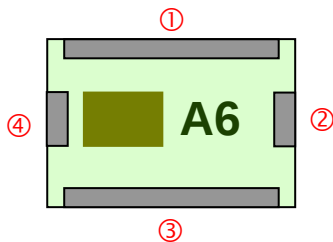
Q'ty/Reel (pcs) : 2,000
 Operating Temperature Range : -40 ~ +85 °C
 Storage Temperature Range : -40 ~ +85 °C
 Storage Period : 12 months max.
 Power Capacity : 3W max.

Part Number

BF **3225** - **R** **5R5** **DAP** **□** **/LF**
 ① ② ③ ④ ⑤ ⑥ ⑦

① Type	BF : Band-Pass Filter	② Dimensions (L × W)	3.2 × 2.5 mm
③ Material Code	R	④ Frequency Range	5R5=5500MHz
⑤ Specification Code	DAP	⑥ Packaging	T: Tape & Reel B: Bulk
⑦ Soldering	/LF=lead-free		

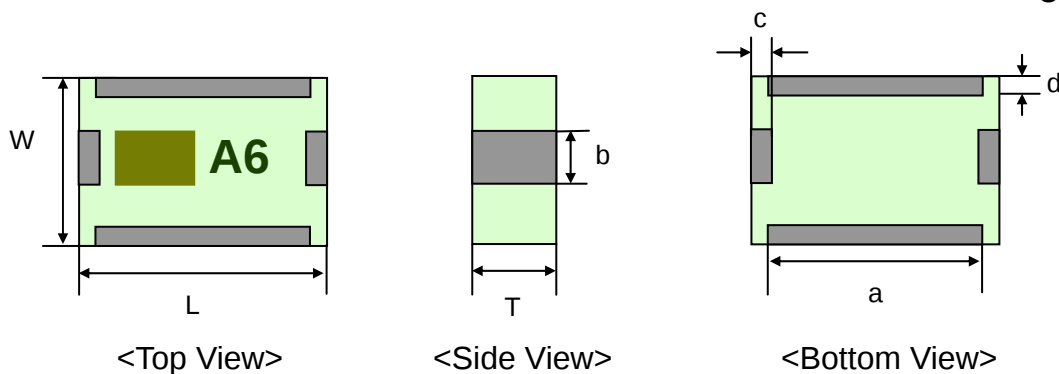
Terminal Configuration



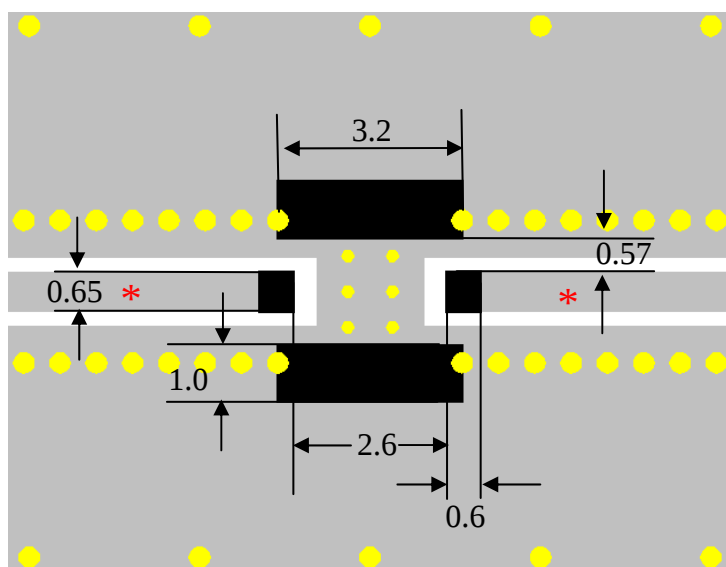
No.	Terminal Name	No.	Terminal Name
①	GND	③	GND
②	OUT/IN	④	IN/ OUT

Dimensions and Recommended PC Board Pattern

Unit : mm



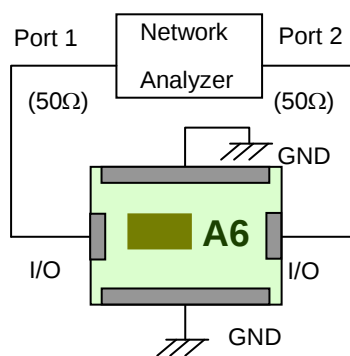
Mark	L	W	T	a	b	c	d
Dimensions	3.2 ± 0.2	2.5 ± 0.2	1.8 max.	2.8 ± 0.1	0.6 ± 0.2	0.3 ± 0.15	0.3 ± 0.1



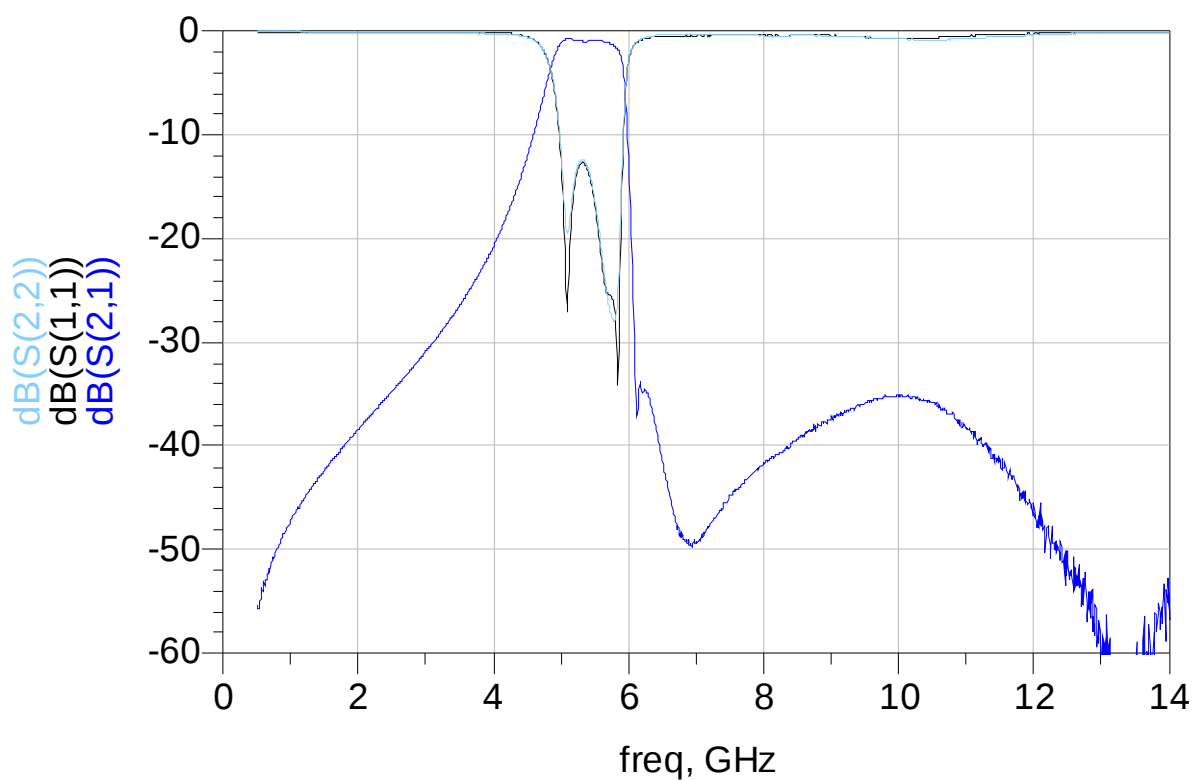
- Solder Resist
- Land
- Through-hole (ϕ 0.35/0.2)

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

Measuring Diagram



Electrical Characteristics (T=25°C)

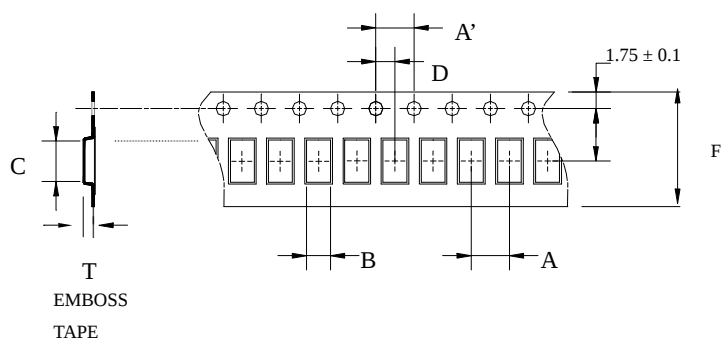


Notes

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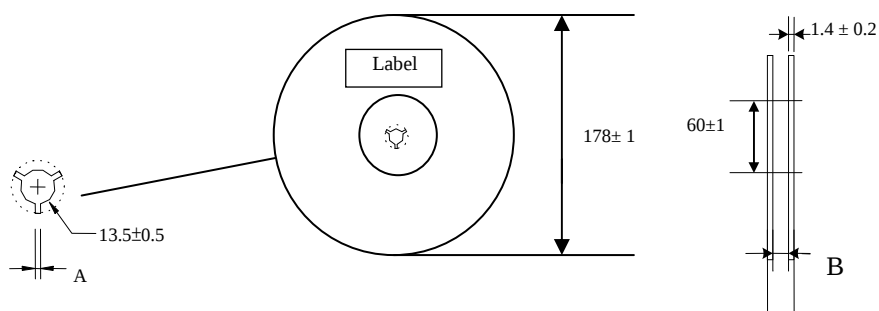
Taping Specifications

❖Tape Dimensions (Unit: mm) & Quantity



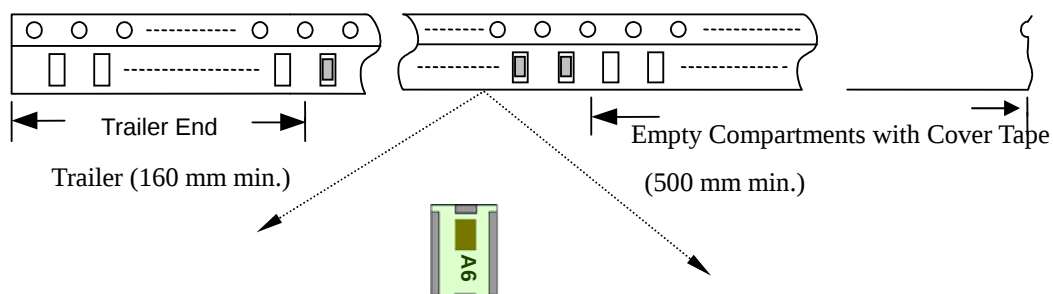
Type	A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
3225	4.0±0.1	4.0±0.1	2.75±0.1	3.45±0.1	2.0±0.1	3.5±0.1	8.0±0.1	1.70±0.10	2,000pcs	Plastic (Embossed)

❖Reel Dimensions (Unit: mm)

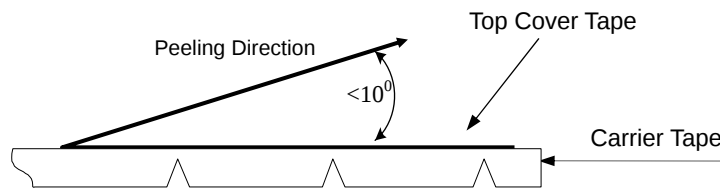


Type	A	B
3225	2.3±0.5	9.0±0.3

❖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 .

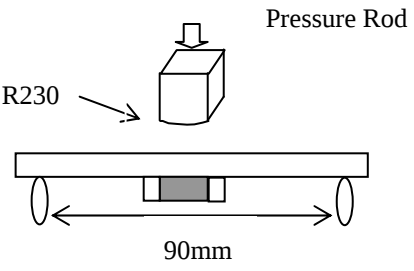
❖ Storage Conditions

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

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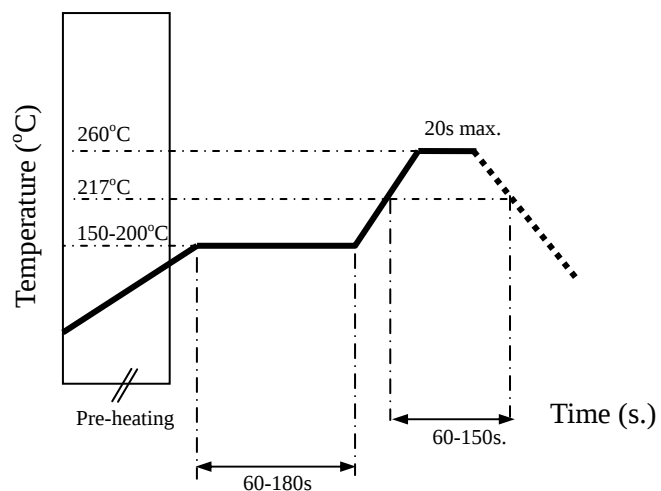
Mechanical & Environmental Characteristics

Item	Requirements	Procedure
Solderability	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 2. Fulfill the electrical specification	1. Solder specimen onto test jig (FR4, 1.6 mm) using the recommend soldering profile. 3. 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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