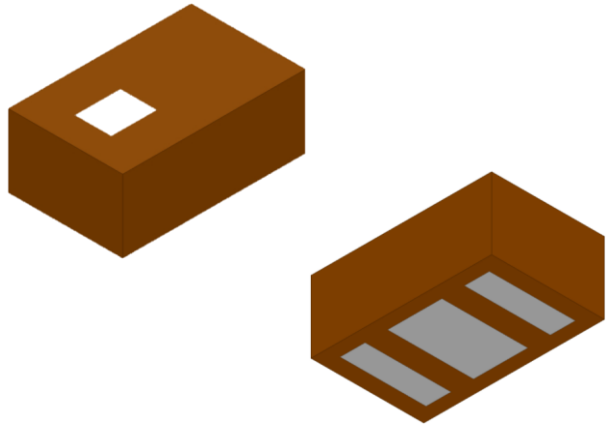
2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for wireless communication systems: Bluetooth, WLAN, etc.
- Low insertion loss and high out-of-band rejection
- With LGA-type terminations for reduced effective footprint
- SMD, EIA 0805
- RoHS complaint



General Specifications[1] [2]

Insertion Loss (dB)	2400 - 2500 MHz	1.8 Typ.		2.0 Max.
Return Loss (dB)	2400 - 2500 MHz		10 Min.	
Attenuation (dB)	824 - 960 MHz		35 Min.	
	1545 - 1605 MHz		30 Min.	
	1710 - 1990 MHz		35 Min.	
	2170 MHz	36 Typ.	30 Min.	
	4000 MHz	18 Typ.	20 Min.	
	4800 - 5000 MHz	30 Typ.	30 Min.	
	7200 - 7500 MHz	30 Typ.	25 Min.	

Maximum Ratings

Power Capacity (W)	2 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product[3]	45% - 75% RH +5 to +35 °C 18 Months Max.

[1] Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.
[2] General specifications measured on Johanson's evaluation board P/N 2450BP15Q0100001CE1.
[3] 18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile.

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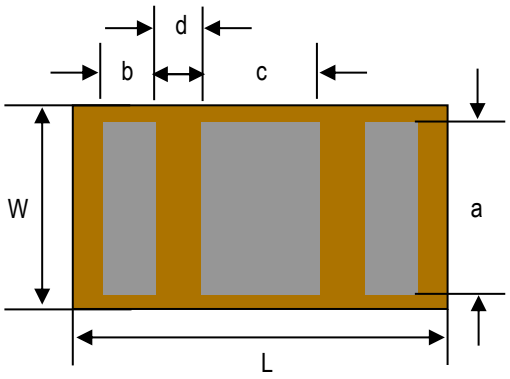
Mechanical Dimensions

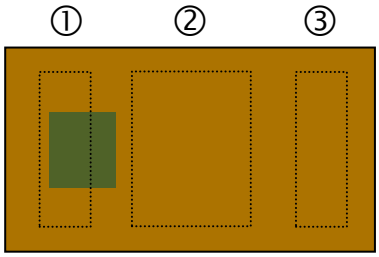
	Inches			Millimeters		
L	0.079	±	0.006	2.00	±	0.15
W	0.049	±	0.004	1.25	±	0.10
T	0.028		Max.	0.70		Max.
a	0.037	±	0.004	0.95	±	0.10
b	0.011	±	0.004	0.28	±	0.10
c	0.024	±	0.004	0.60	±	0.10
d	0.010	±	0.002	0.25	±	0.05

Bottom view



Side view

Top view



Terminal Configuration[4]

Pin Number	Function
1	INPUT/OUTPUT
2	GND
3	INPUT/OUTPUT

[4] The termination type is Silver. Go to https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile for Typical Soldering Profile. SAC 305 solder paste recommended.

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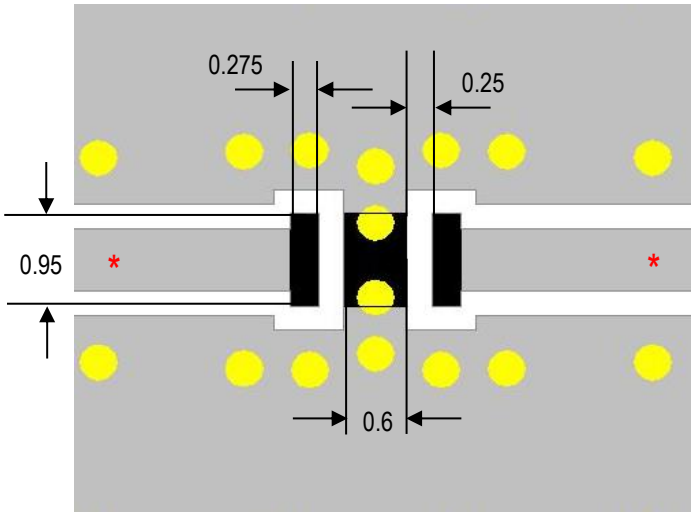
Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

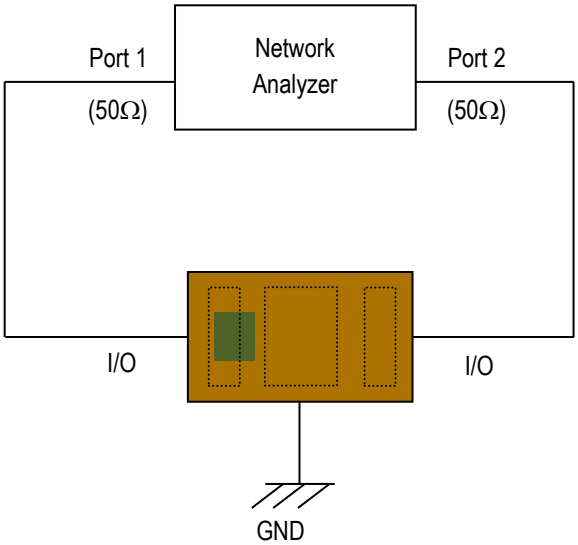
Land

Through-hole (ϕ 0.3)

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

If you'd like the CAD PCB layout or have any questions,
contact our application engineers at https://www.johansontechnology.com/ask-a-question

Measuring Diagram



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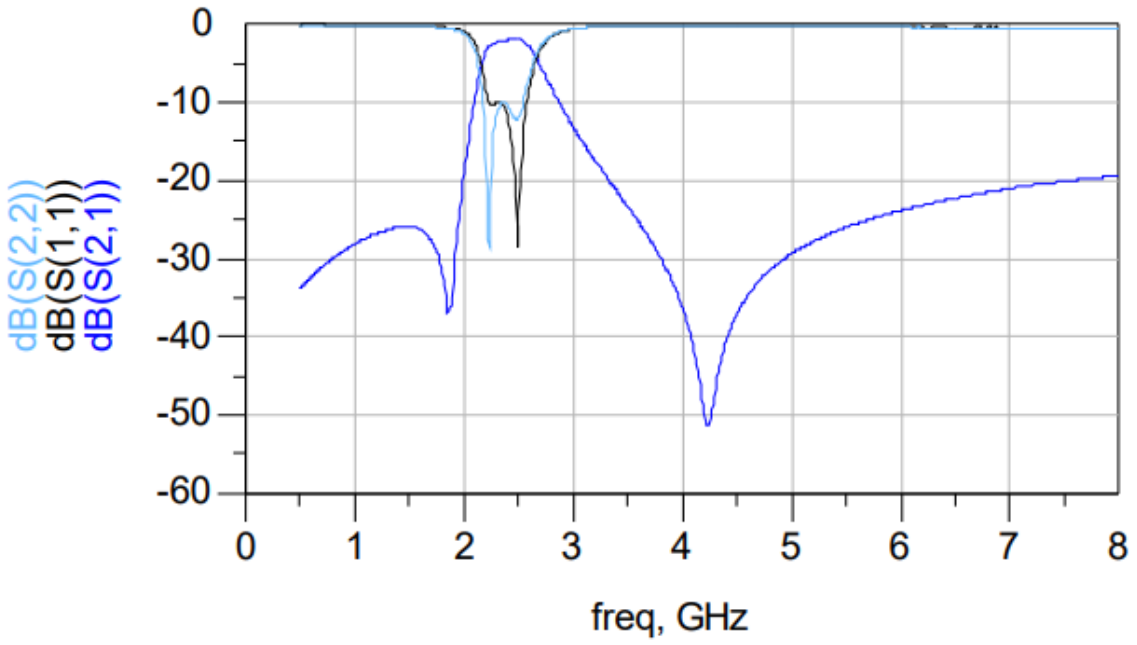
RF Measurement (T = 25°C)

Insertion Loss, Return Loss, Attenuation



S-parameters, layout file, and complimentary design review available upon request. Contact our application engineers at https://www.johansontechnology.com/ask-a-question

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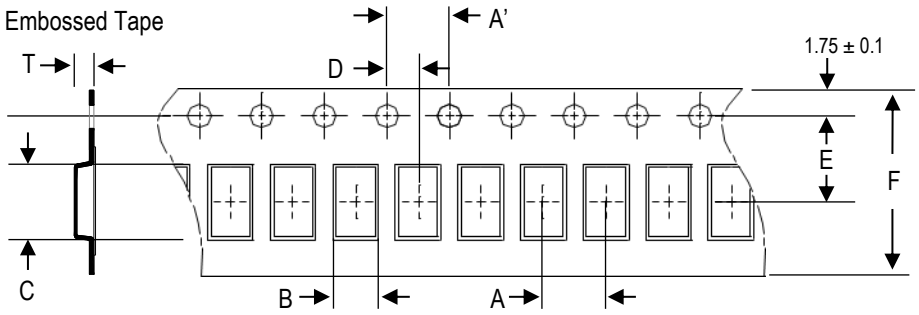
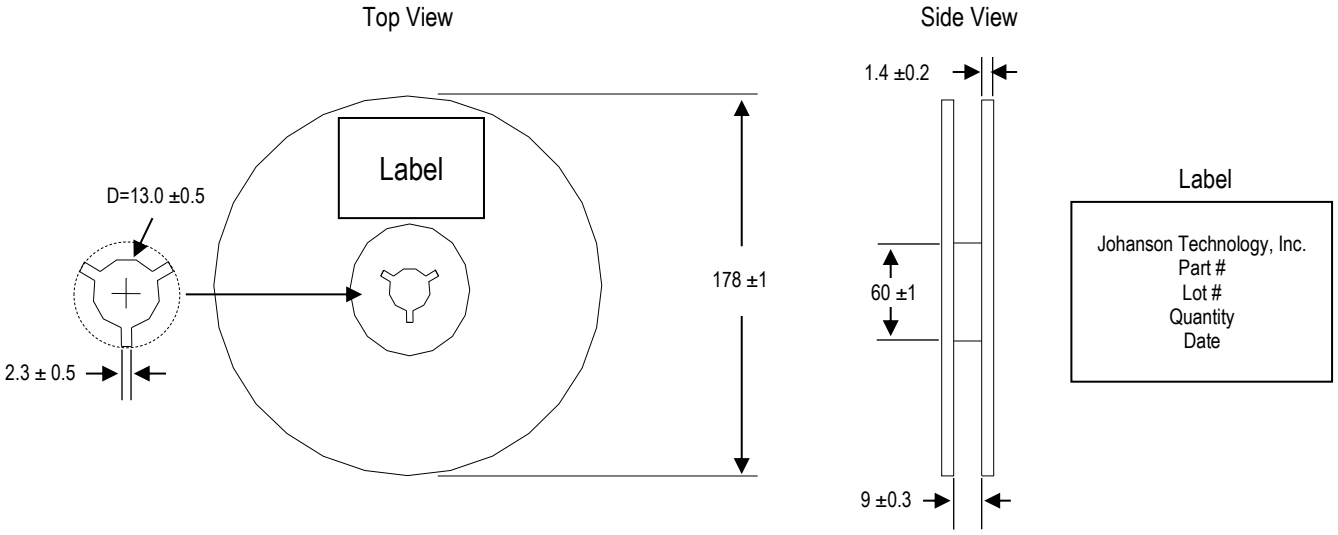
Tape and Reel Specification (Units in mm)

Tape Dimensions

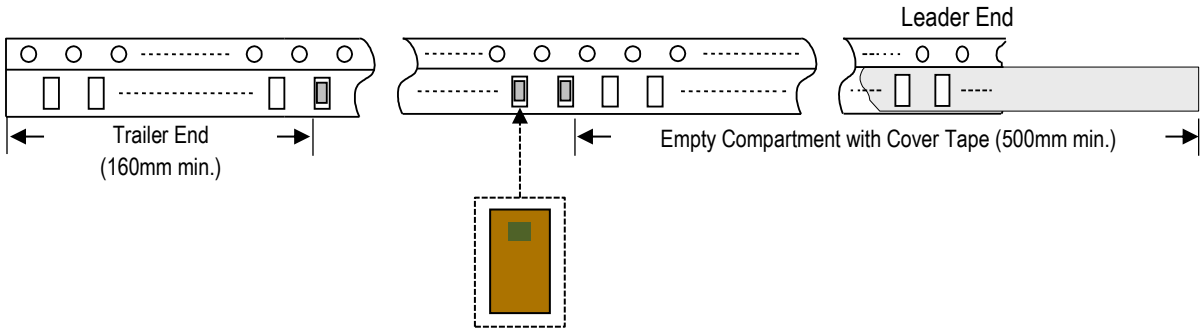


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.65 ±0.05	4,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



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Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP15Q0100001B	Silver
T & R (7" Reel Embossed Tape)	2450BP15Q0100001E (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP15Q0100001CE1	

Important Links

2450BP15Q0100001E Product Page

More Band Pass Filters

Antenna Tuning, Optimization, and Validation Services

Soldering Information

MSL Information

Packaging Information

Recommended Storage Condition and Max Shelf Life

RoHS Compliance

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