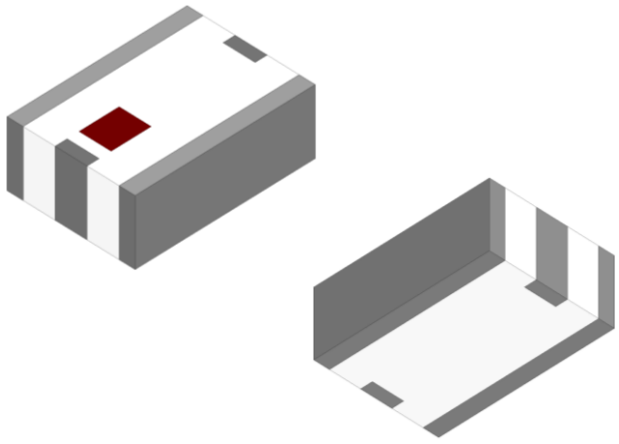
2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for wireless communication systems: Bluetooth, WLAN, etc.
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1008
- RoHS complaint



General Specifications[1] [2]

Insertion Loss (dB)	2400 - 2500 MHz	2.25 Typ.		2.5 Max.
Return Loss (dB)	2400 - 2500 MHz	14.7 Typ.	9.5 Min.	
Attenuation (dB)	880 - 915 MHz	44 Typ.	40 Min.	
	1710 - 1990 MHz	45 Typ.	42 Min.	
	2100 MHz	35 Typ.	30 Min.	
	4800 - 5000 MHz	35 Typ.	30 Min.	
	7200 - 7500 MHz	41 Typ.	35 Min.	

Maximum Ratings

Power Capacity (W)	0.5 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	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 2450BP39C100A001CE1.

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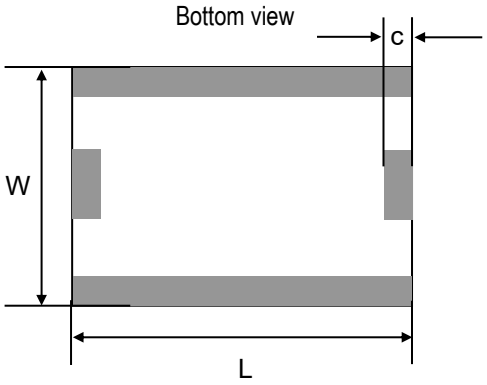
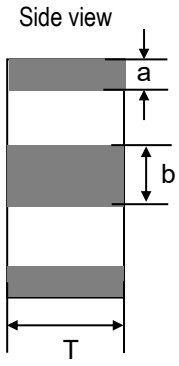
Mechanical Dimensions

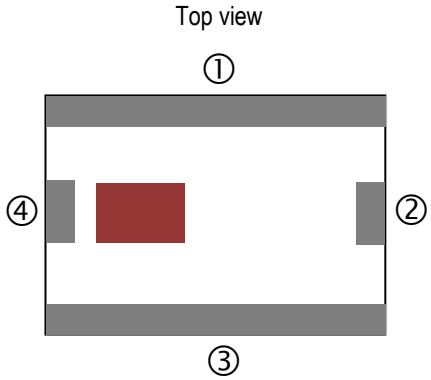
	Inches			Millimeters		
L	0.098	±	0.008	2.50	±	0.20
W	0.079	±	0.008	2.00	±	0.20
T	0.035	±	0.004	0.90	±	0.10
a	0.012	±	0.008	0.30	±	0.20
b	0.024	±	0.008	0.60	±	0.20
c	0.012	±	0.008	0.30	±	0.20





Terminal Configuration[3]

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



[3] The termination type is Nickel Tin. Go to: https://www.johansontechnology.com/ipcsoldering-profile for Typical Soldering Profile.

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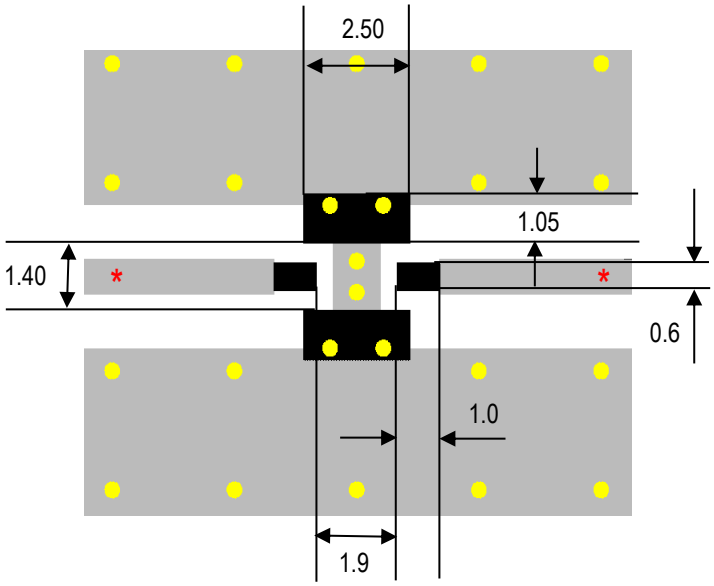
Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

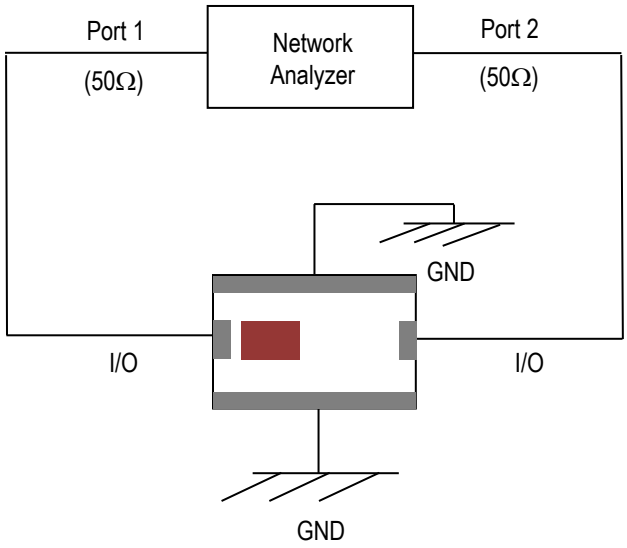
Land

Through-hole (ϕ 0.35)

* 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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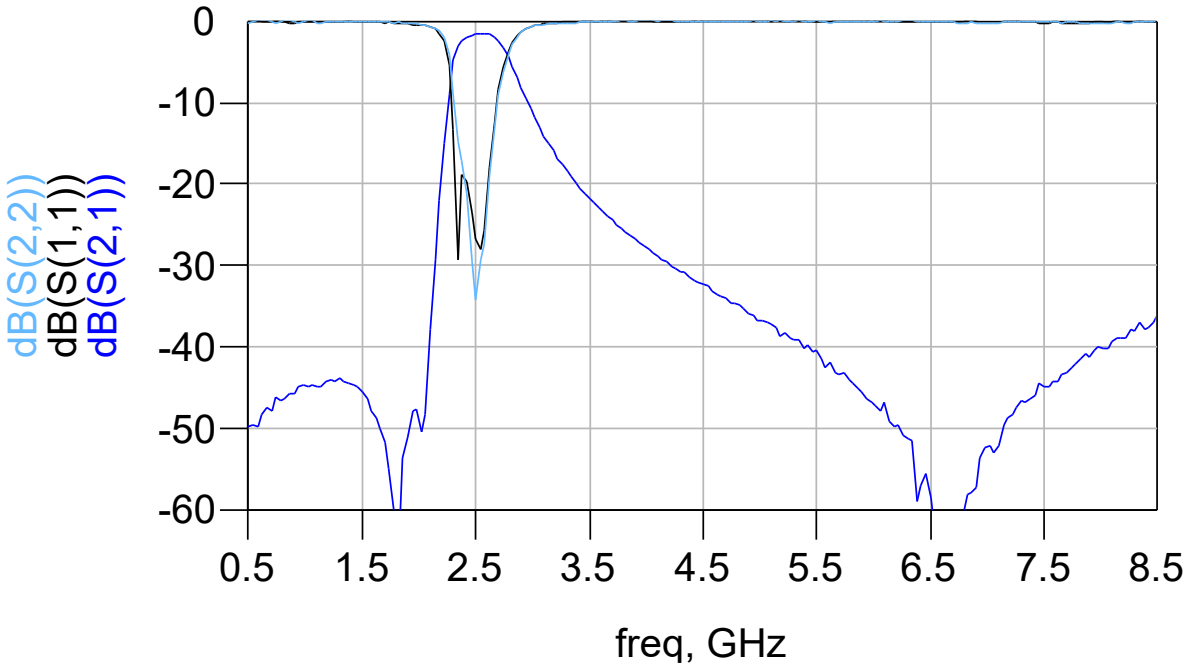
RF Measurement (T = 25°C)

Insertion Loss, Return Loss and Attenuation



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

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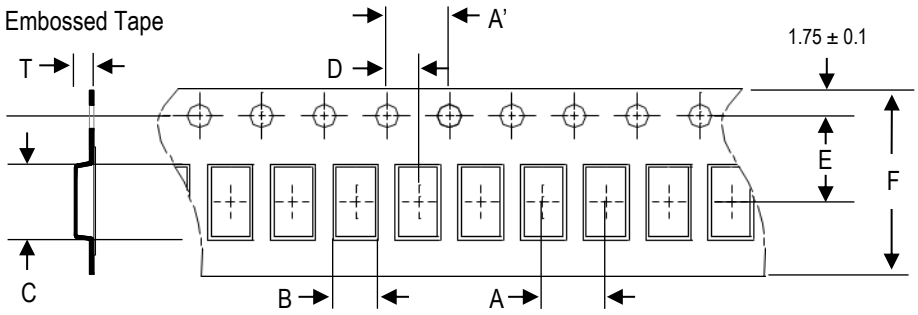
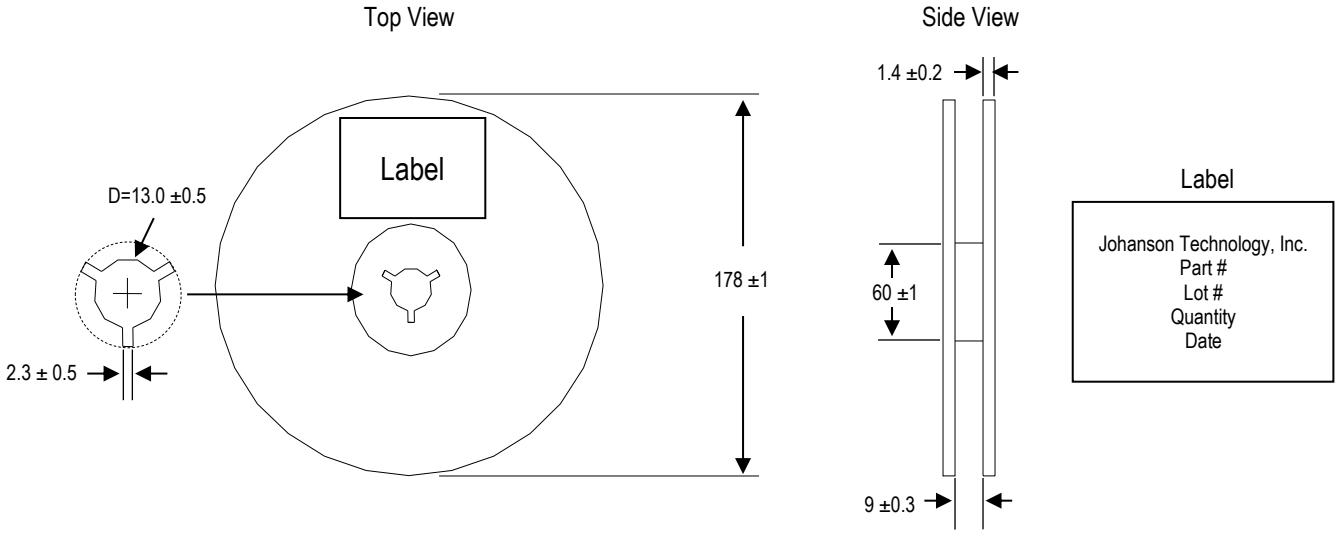
Tape and Reel Specification (Units in mm)

Tape Dimensions

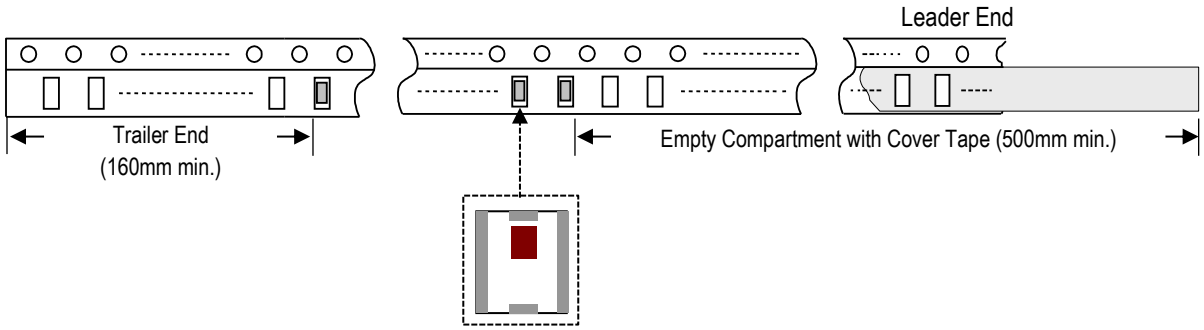


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	2.35 ±0.1	2.8 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	1.15 ±0.1	3,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



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Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP39C100A001B	Nickel Tin
T & R (7" Reel Embossed Tape)	2450BP39C100A001E (Qty: 3,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP39C100A001CE1	

Important Links

2450BP39C100A001E 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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