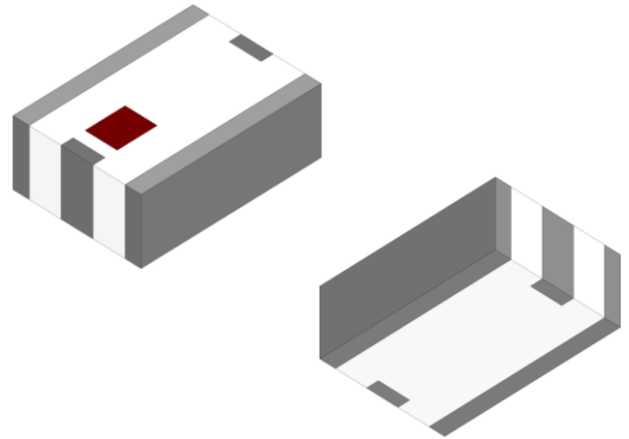


2.45 GHz Band Pass Filter

- 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

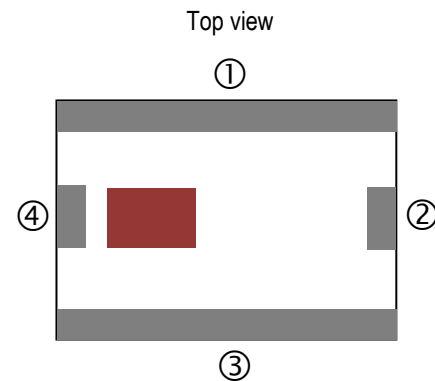
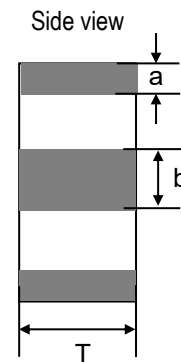
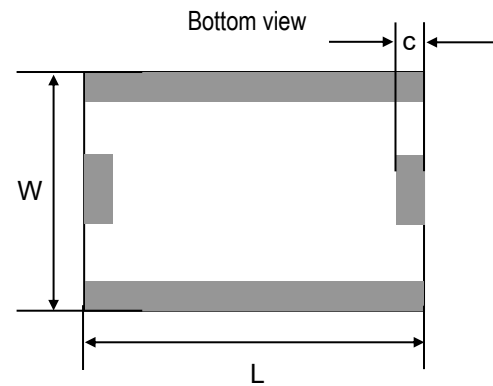
Power Capacity (W)	0.5 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

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.

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



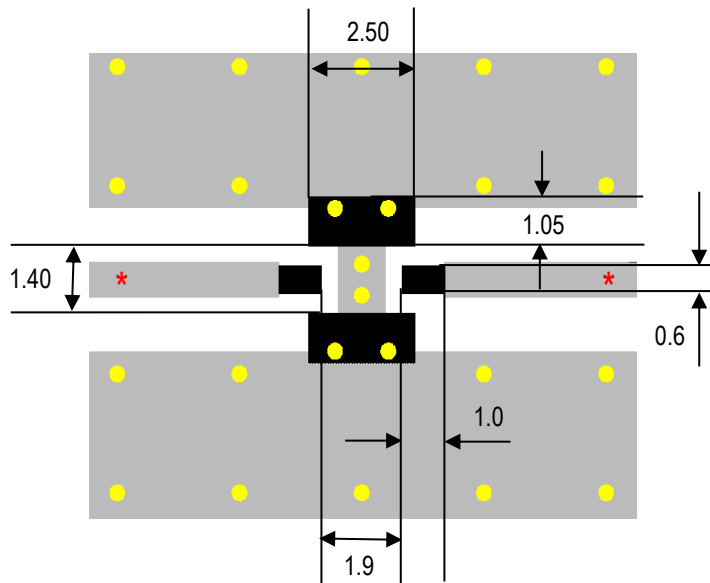
Terminal Configuration³

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.

Recommended PCB Layout

Note: Mount device with colored mark facing up.



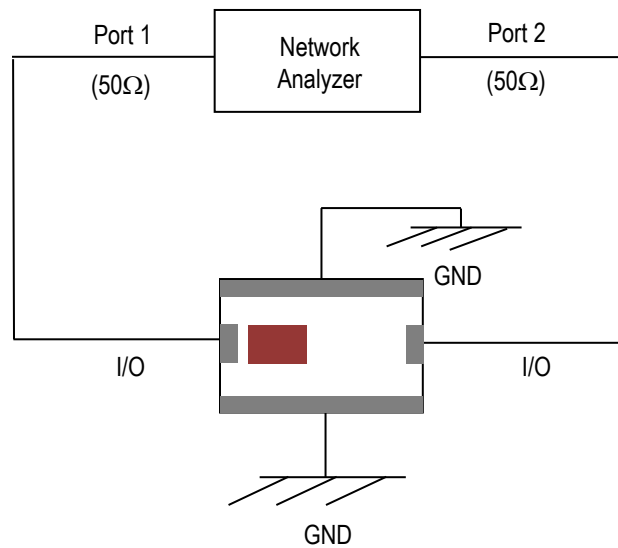
Units in mm

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

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

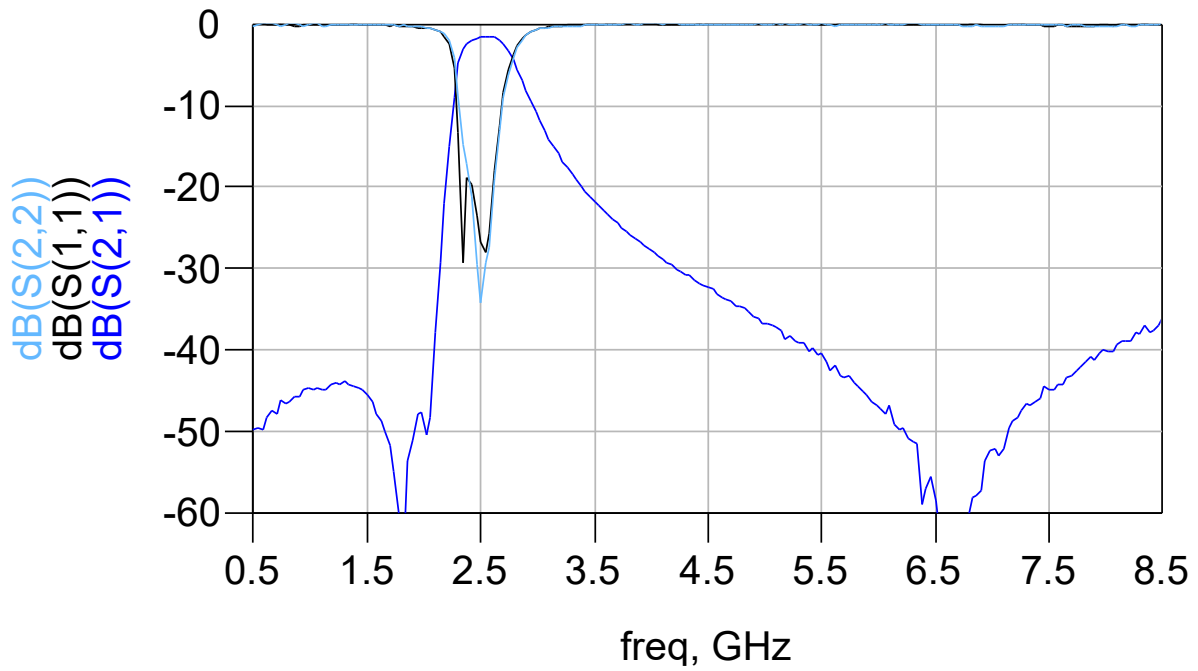
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

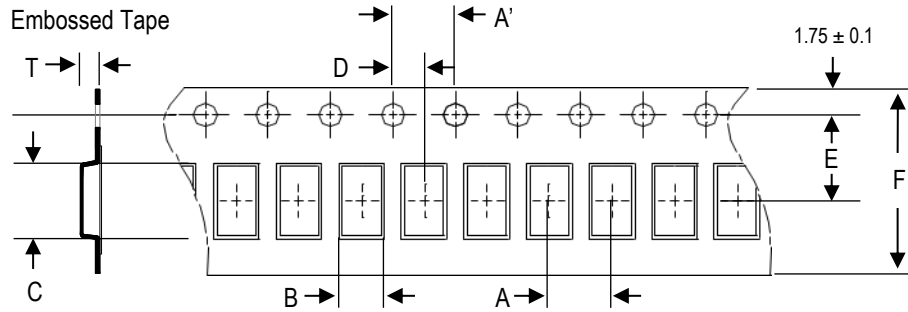
Insertion Loss, Return Loss and Attenuation



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

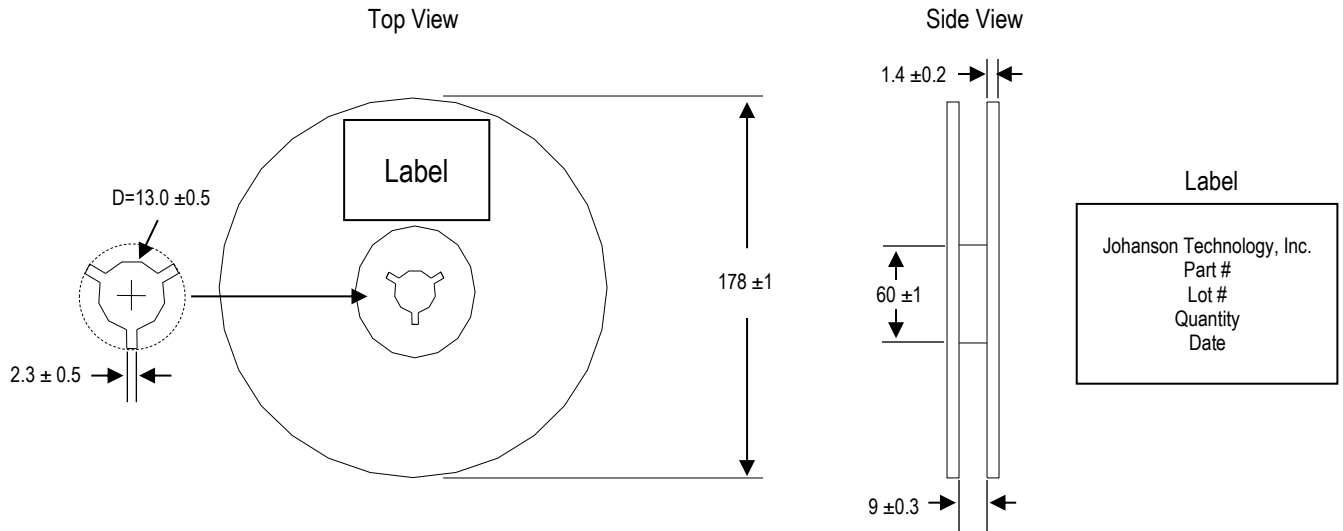
Tape and Reel Specification (Units in mm)

Tape Dimensions

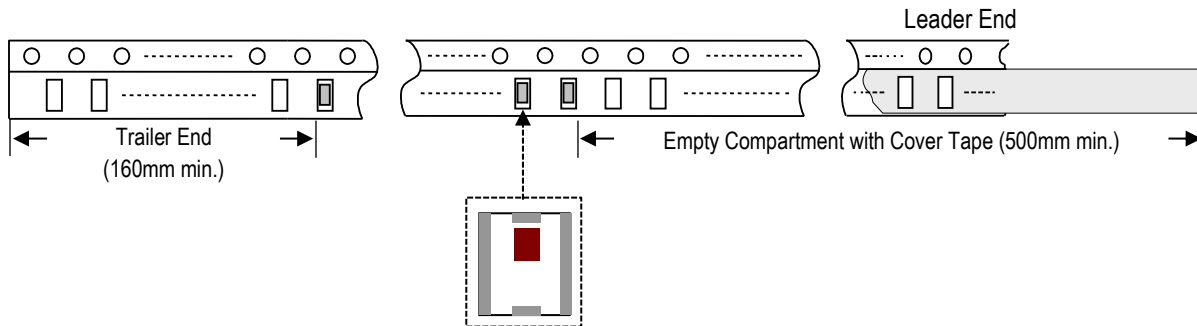


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	2.35 ±0.1	2.8 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	1.15 ±0.1	3,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



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](#)

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.