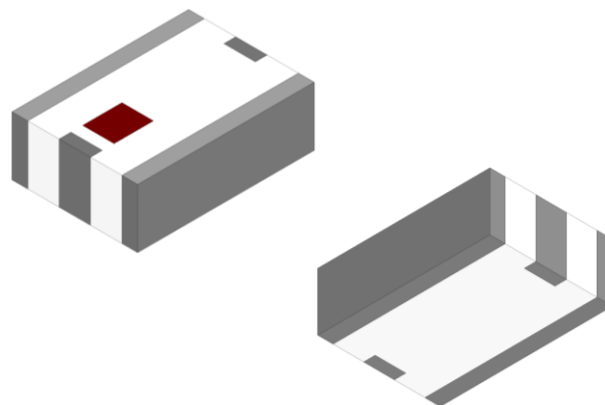




2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1008
- RoHS complaint



General Specifications^{1 2}

Insertion Loss (dB)	2400 - 2500 MHz	1.5 Max.
Return Loss (dB)	2400 - 2500 MHz	9.5 Min.
Attenuation (dB)	880 - 915 MHz	30 Min.
	1710 - 1785 MHz	30 Min.
	1850 - 1910 MHz	25 Min.
	4800 - 5000 MHz	25 Min.
	7200 - 7500 MHz	15 Min.

Maximum Ratings

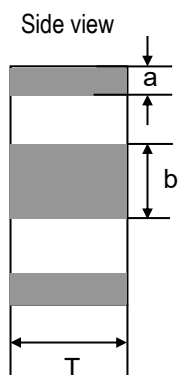
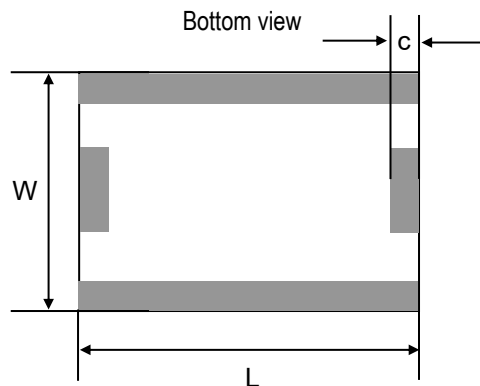
Power Capacity (mW)	500 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35 °C 18 Months Max.

¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

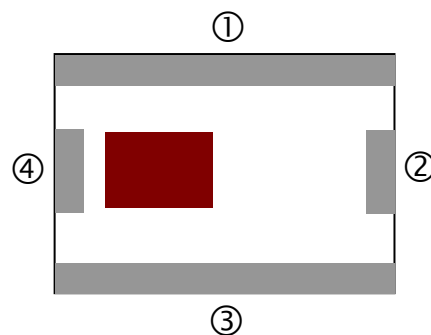
² General specifications measured on Johanson's evaluation board P/N 2450BP39C100C001CE1.

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



Top view



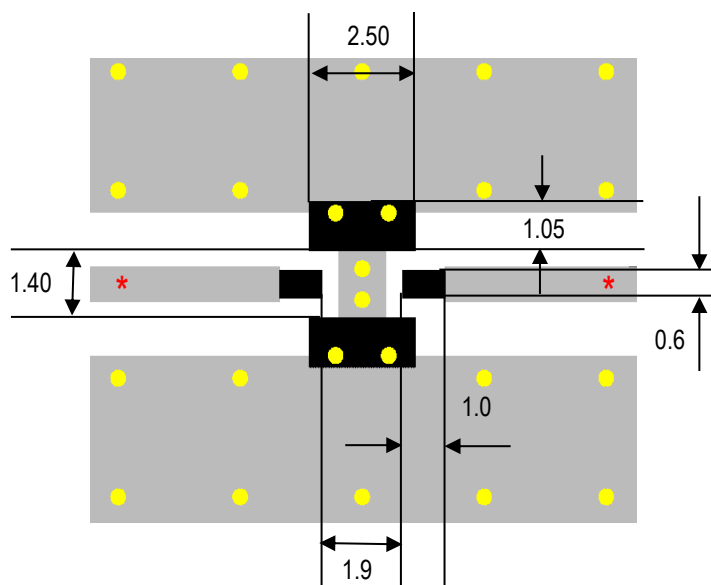
Terminal Configuration³

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

³ The standard termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/tech-notes/typical-soldering-profile-ipc>. Typical Soldering Profile.

Recommended PCB Layout

Note: Mount device with colored mark facing up.



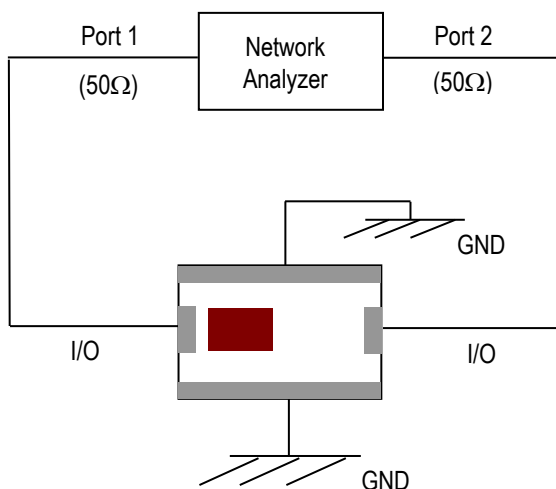
Units in mm

-  Solder Resist
-  Land
-  Through-hole ($\phi 0.35$)

* 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>

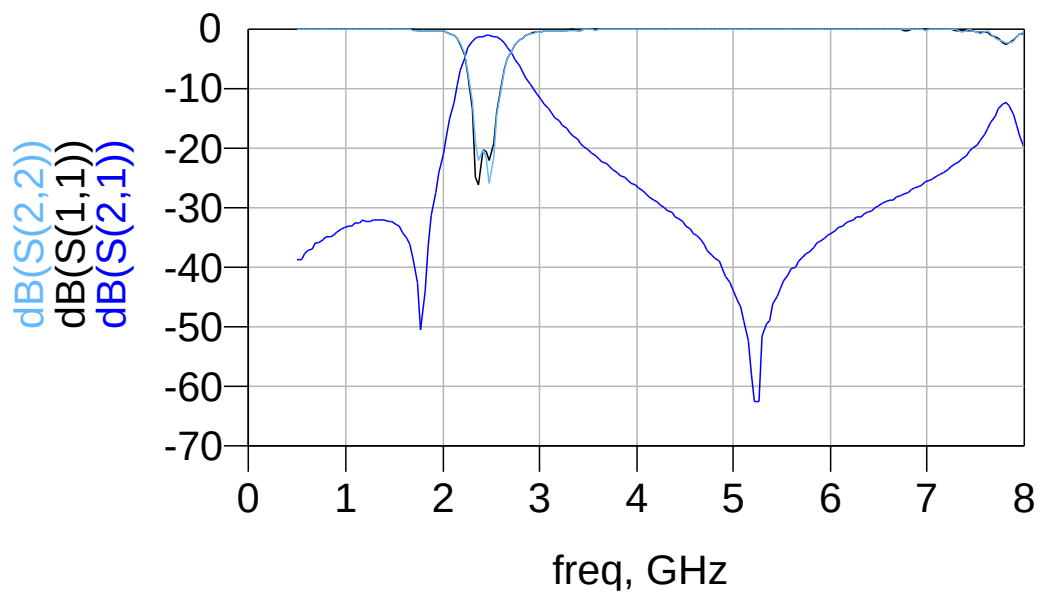
Measuring Diagram





RF Measurement (T = 25°C)

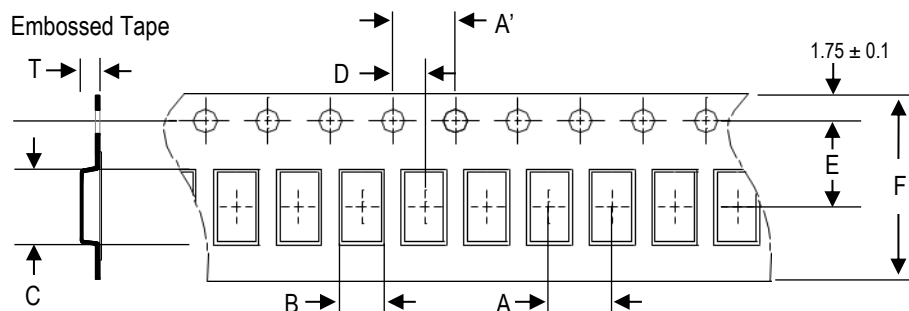
Insertion Loss, Return Loss, Attenuation



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

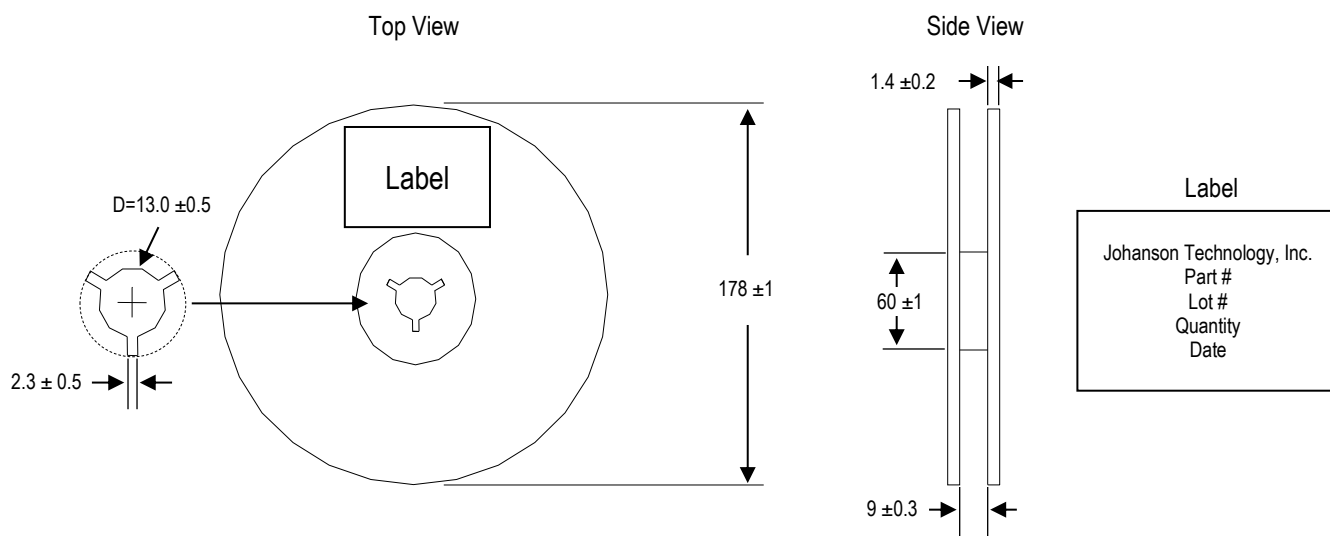
Tape and Reel Specification (Units in mm)

Tape Dimensions

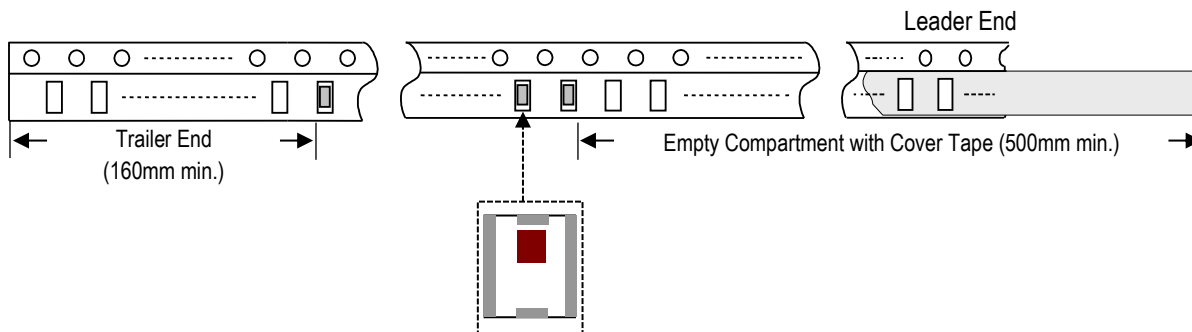


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ± 0.1	4.0 ± 0.1	2.35 ± 0.1	2.8 ± 0.1	2.0 ± 0.1	3.5 ± 0.1	8.0 ± 0.1	1.15 ± 0.1	3,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP39C100C001B	Nickel Tin
T & R (7" Reel Embossed Tape)	2450BP39C100C001E (Qty: 3,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP39C100C001CE1	

Important Links

[2450BP39C100C001E 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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