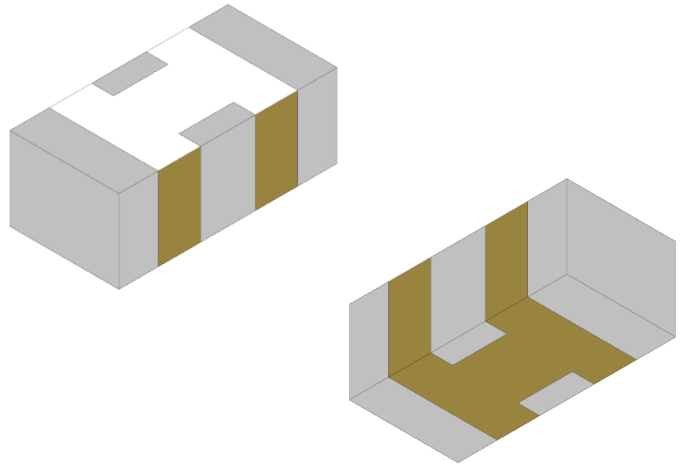




2.45 GHz Band Pass Filter

- 2400 - 2500 MHz pass band
- Optimal for Bluetooth, WiFi, Zigbee, ANT+, Channel Sounding, ISM, MIMO, PDoA, AoA, LoRa, Thread
- Low insertion loss
- SMD, EIA 0402
- Operating temperature up to +105°C
- RoHS compliant



General Specifications^{1 2}

Insertion Loss (dB)	2400 - 2500 MHz	1.6 Typ.	2.2 Max.
Return Loss (dB)	2400 - 2500 MHz		9.5 Min.
Attenuation (dB)	824 - 1000 MHz		25 Min.
	4800 - 5000 MHz		36 Min.
	7200 - 7500 MHz		30 Min.

Maximum Ratings

Power Capacity (W)	2 Max. (CW)
Operating Temperature (°C)	-40 to +105
Recommended Storage Conditions post-installation (°C)	-40 to +105
Recommended Storage Conditions and Period for Unused T&R Product ³	45% - 75% RH +5 to +35 °C 18 Months Max.

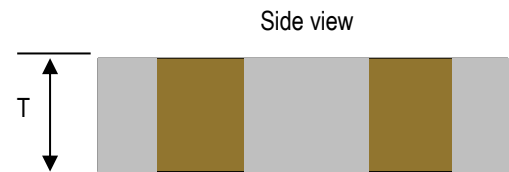
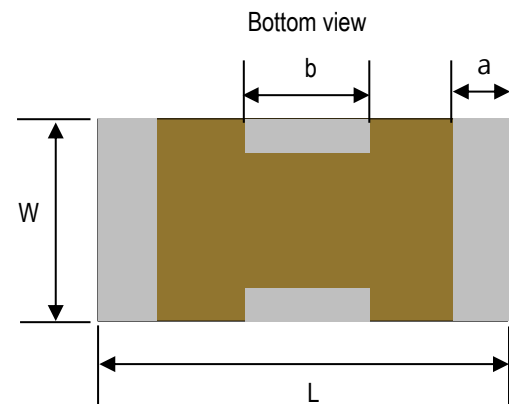
¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 2450BP07C0100001CE1.

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>.

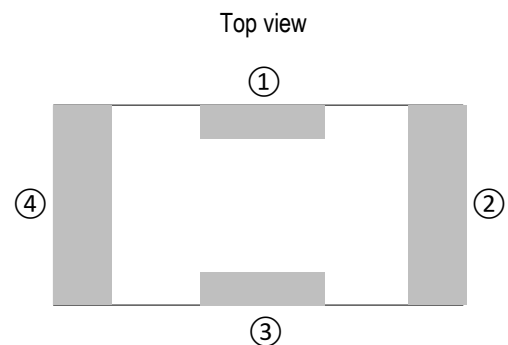
Mechanical Dimensions

	Inches			Millimeters		
L	0.039	±	0.002	1.00	±	0.05
W	0.020	±	0.002	0.50	±	0.05
T	0.015	±	0.002	0.38	±	0.05
a	0.007	±	0.004	0.18	±	0.10
b	0.010	±	0.004	0.25	±	0.10



Terminal Configuration⁴

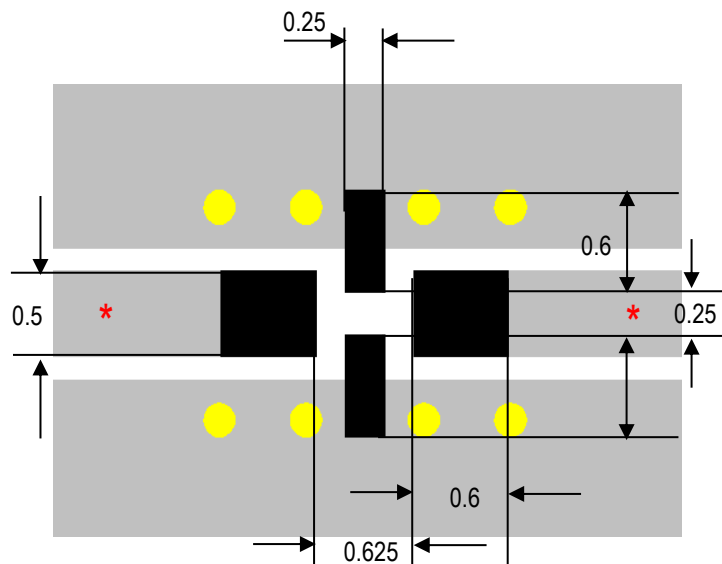
Pin Number	Function
1	GND
2	INPUT / OUTPUT
3	GND
4	INPUT / OUTPUT



⁴ The termination type is Silver. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile. SAC 305 solder paste recommended.

Recommended Mounting Configuration

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

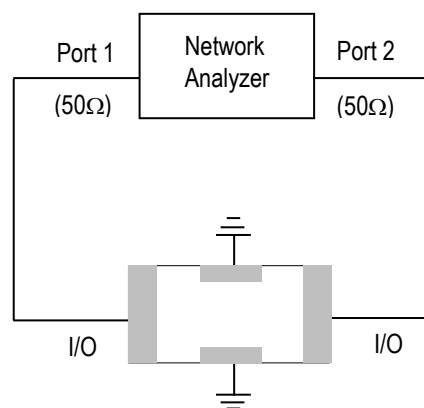
Land

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>

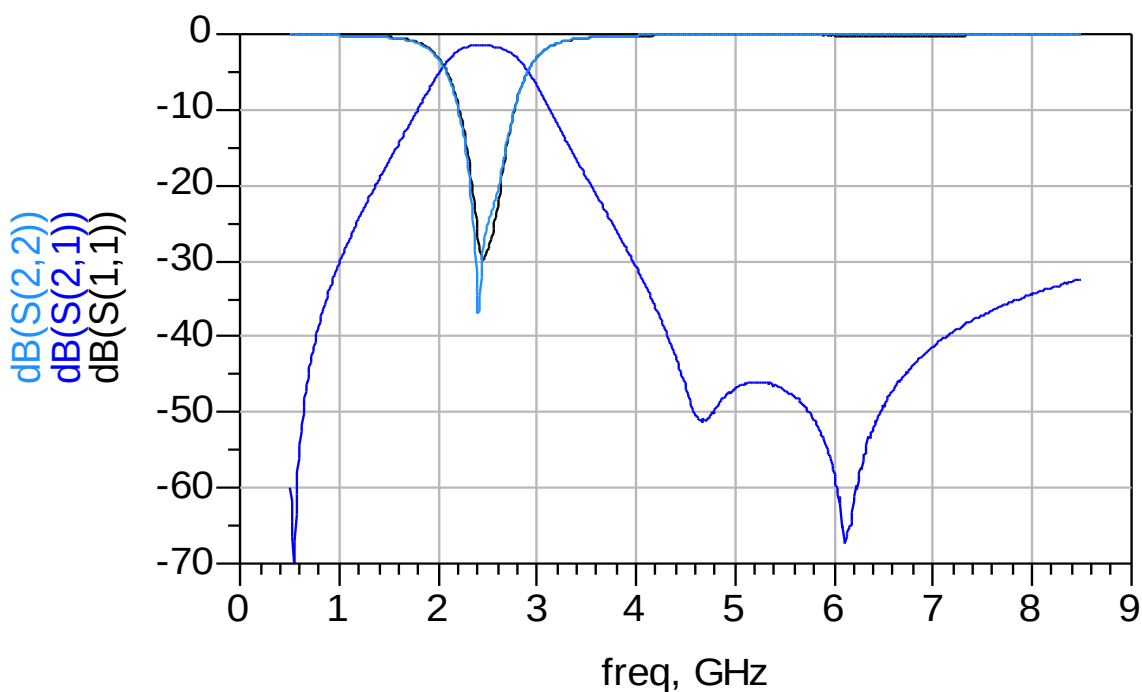
Measuring Diagram





RF Measurement (T = 25°C)

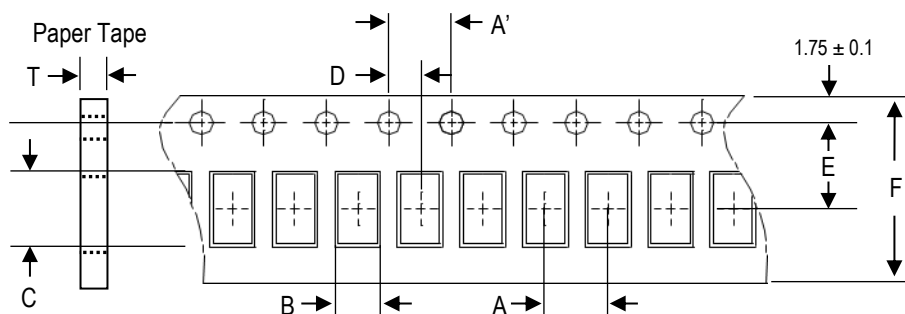
Insertion Loss, Return Loss



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

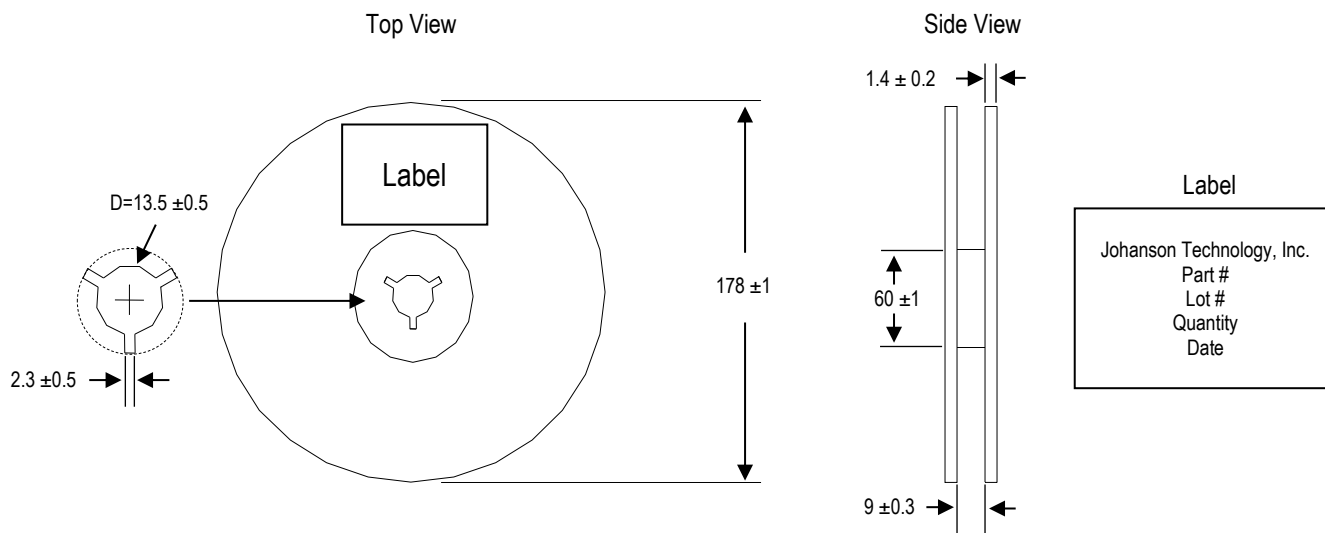
Tape and Reel Specification (Units in mm)

Tape Dimensions

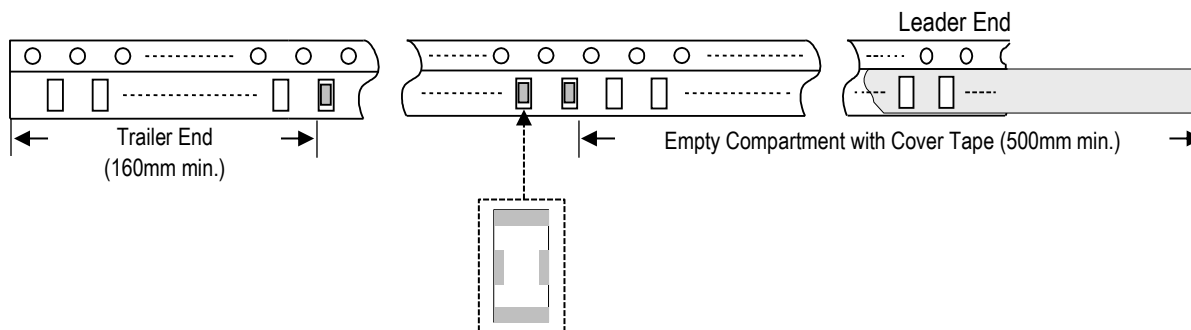


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2.0 ±0.05	4.0±0.1	0.62 ±0.03	1.12 ±0.03	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.45 ±0.03	10,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP07C0100001B	Silver
T & R (7" Reel Paper Tape)	2450BP07C0100001T (Qty: 10,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP07C0100001CE1	

Important Links

[2450BP07C0100001T 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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