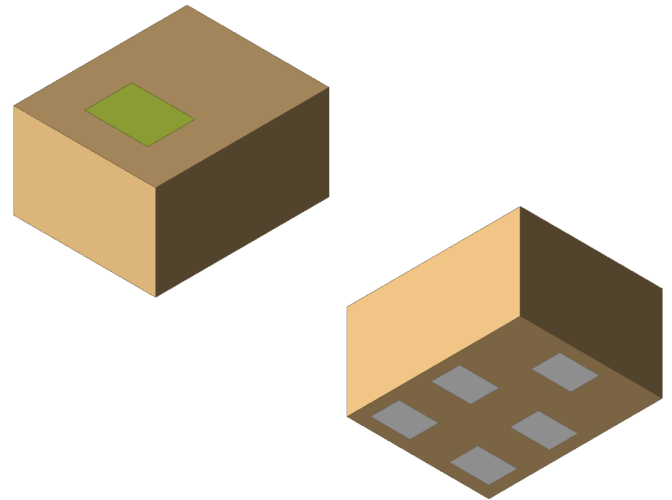




2.45 GHz Band Pass Filter

- 2400 - 2500 MHz pass band
- Optimal for Bluetooth, WiFi, Zigbee, ANT+, Channel Sounding, ISM, MIMO, PDoA, AoA, LoRa, Thread
- Low insertion loss
- SMD, EIA 0403
- Operating temperature up to +105°C
- RoHS compliant



General Specifications¹

Insertion Loss (dB)	2400 - 2500 MHz	0.8 Typ.	1.0 Max. @25°C 1.2 Max. @85°C 1.3 Max. @105°C
Return Loss (dB)	2400 - 2500 MHz		15 Min.
Attenuation (dB)	50 - 960 MHz		20 Min.
	1560 - 1606 MHz		30 Min.
	1710 - 1990 MHz		15 Min.
	3600 MHz		10 Min.
	4800 - 5000 MHz		35 Min.
	7200 - 7500 MHz		25 Min.

Maximum Ratings

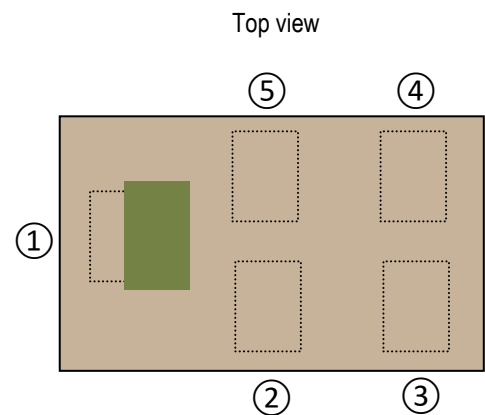
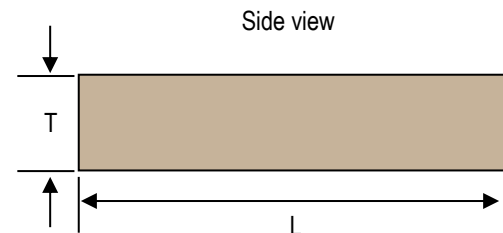
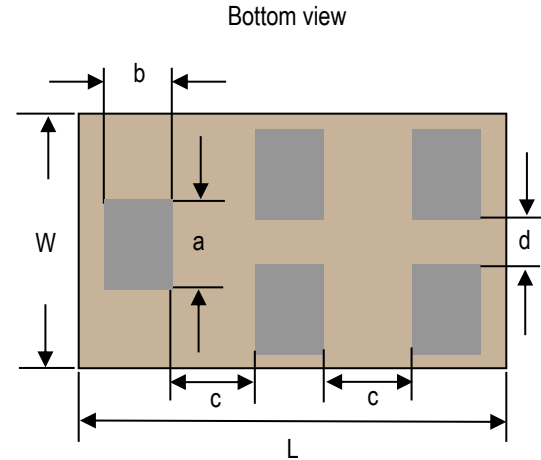
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +105
Recommended Storage Conditions post-installation (°C)	-40 to +105
Recommended Storage Conditions and Period for Unused T&R Product ²	45% - 75% RH +5 to +35 °C 18 Months Max.

¹ General specifications measured on Johanson's evaluation board P/N 2450BP08B0100001CE1.

² 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	0.043	±	0.004	1.10	±	0.10
W	0.035	±	0.004	0.90	±	0.10
T	0.024		Max.	0.60		Max.
a	0.010	±	0.002	0.25	±	0.05
b	0.007	±	0.002	0.18	±	0.05
c	0.008	±	0.002	0.205	±	0.05
d	0.010	±	0.002	0.25	±	0.05



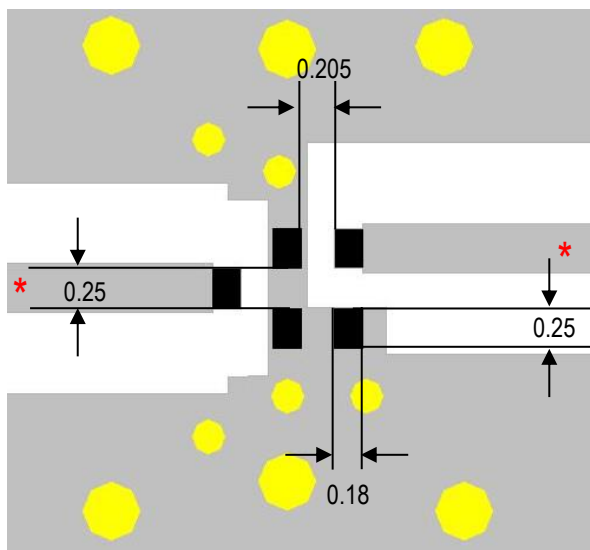
Terminal Configuration³

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

³ 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

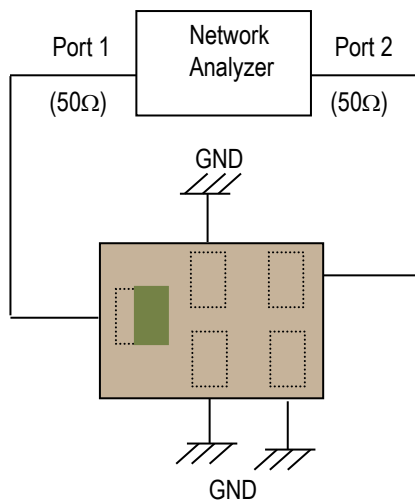


Through-hole (ϕ 0.2, 0.35)

* 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>

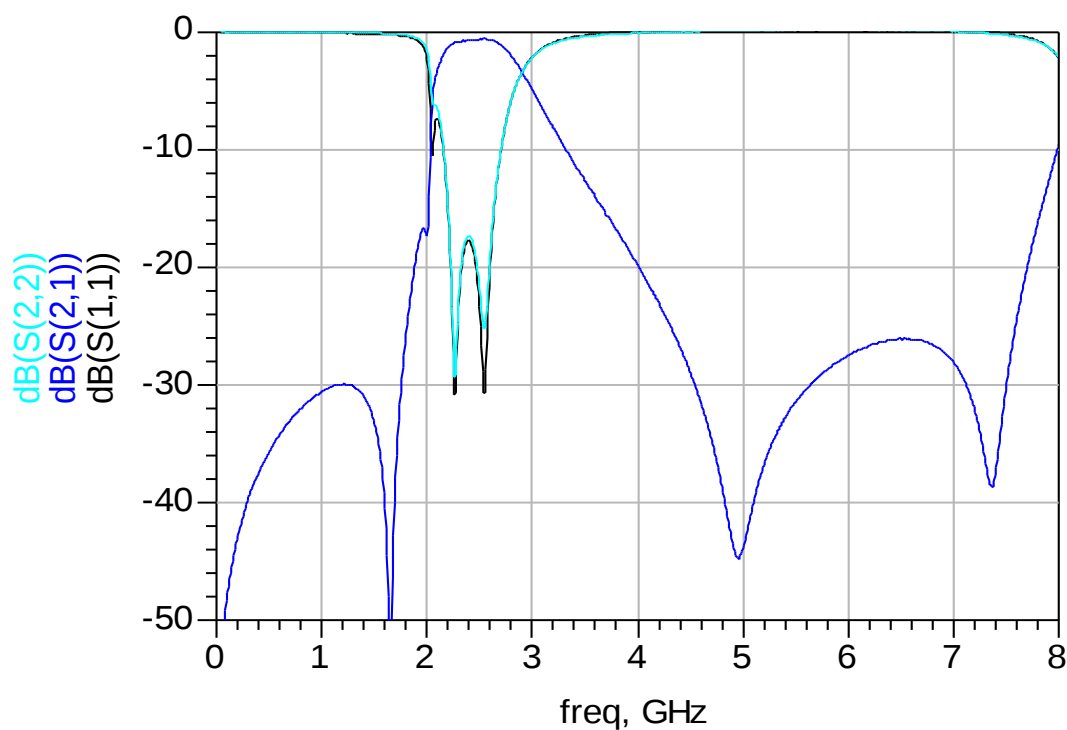
Measuring Diagram





RF Measurement (T = 25°C)

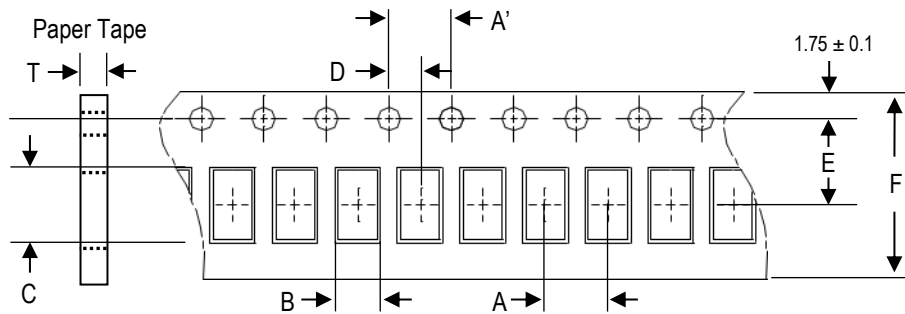
Insertion Loss, Return Loss



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

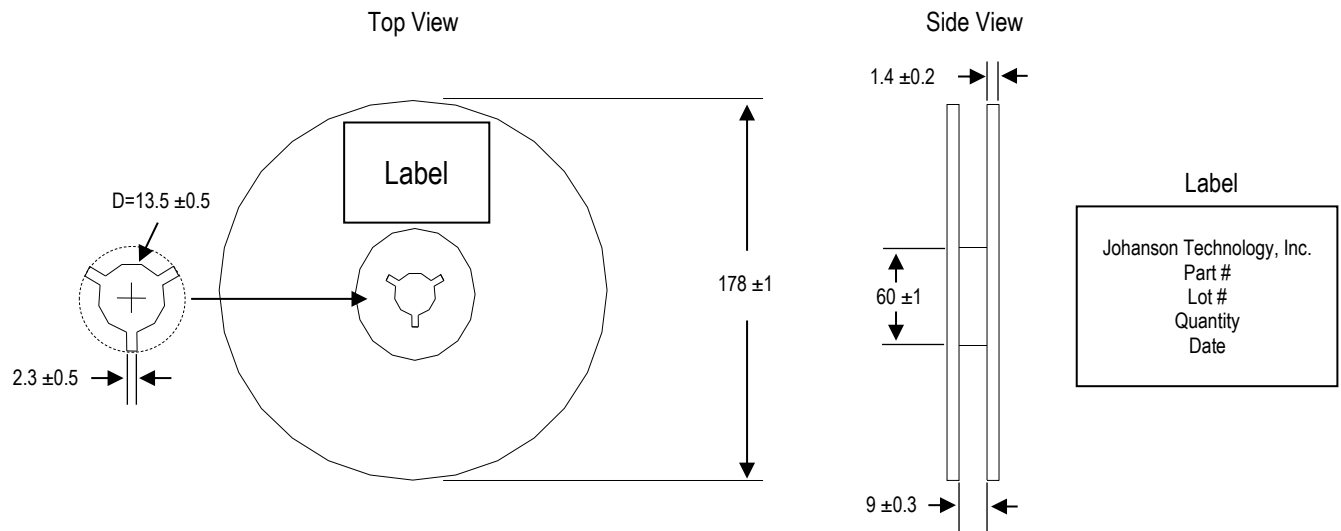
Tape and Reel Specification (Units in mm)

Tape Dimensions

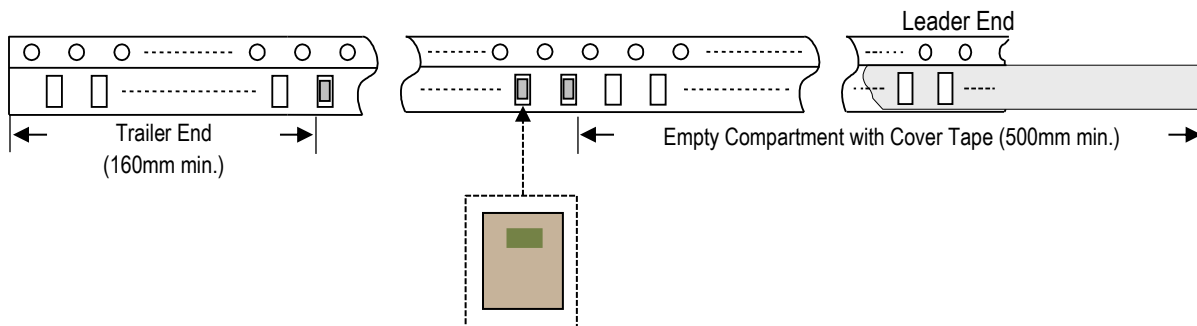


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.08 ±0.05	1.25 ±0.05	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.6 ±0.03	6,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP08B0100001B	Silver
T & R (7" Reel Paper Tape)	2450BP08B0100001T (Qty: 6,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP08B0100001CE1	

Important Links

[2450BP08B0100001T 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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