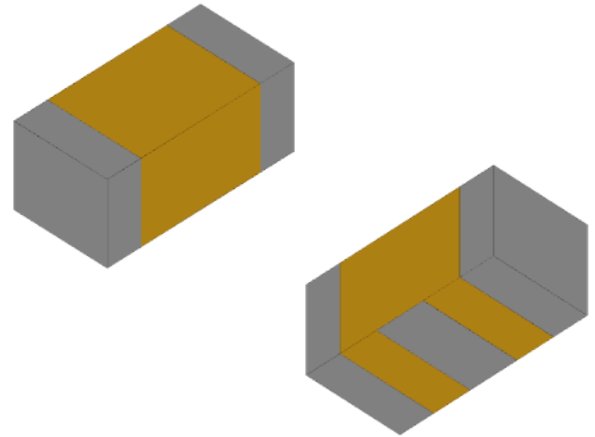


## 2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for mobile communication systems: Bluetooth, WLAN, Hyper-LAN, etc.
- Low insertion loss
- High out-of-band rejection
- Ultra small SMD, EIA 0402
- RoHS complaint



### General Specifications<sup>1 2</sup>

Insertion Loss (dB)	2400 - 2500 MHz	2.5 Max.
Return Loss (dB)	2400 - 2500 MHz	9.5 Min.
Attenuation (dB)	824 - 960 MHz	25 Min.
	1710 - 1910 MHz	25 Min.
	4800 - 5000 MHz	25 Min.
	7200 - 7500 MHz	15 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 <sup>3</sup>	45% - 75% RH +5 to +35 °C 18 Months Max.

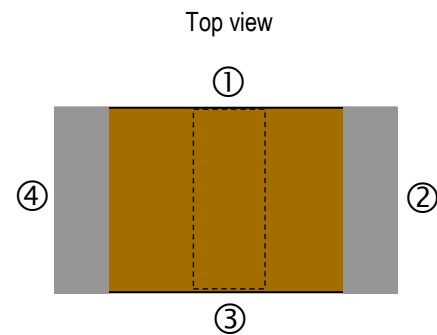
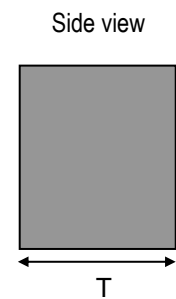
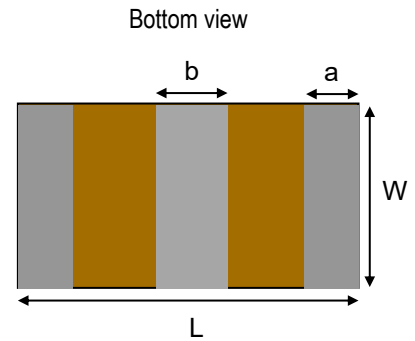
<sup>1</sup> Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

<sup>2</sup> General specifications measured on Johanson's evaluation board P/N 2450BP07A0100001CE1.

<sup>3</sup> 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		
<b>L</b>	0.039	±	0.004	1.00	±	0.10
<b>W</b>	0.020	±	0.002	0.50	±	0.05
<b>T</b>	0.015	±	0.002	0.38	±	0.05
<b>a</b>	0.008	±	0.004	0.20	±	0.10
<b>b</b>	0.010	±	0.004	0.25	±	0.10



**Terminal Configuration<sup>4</sup>**

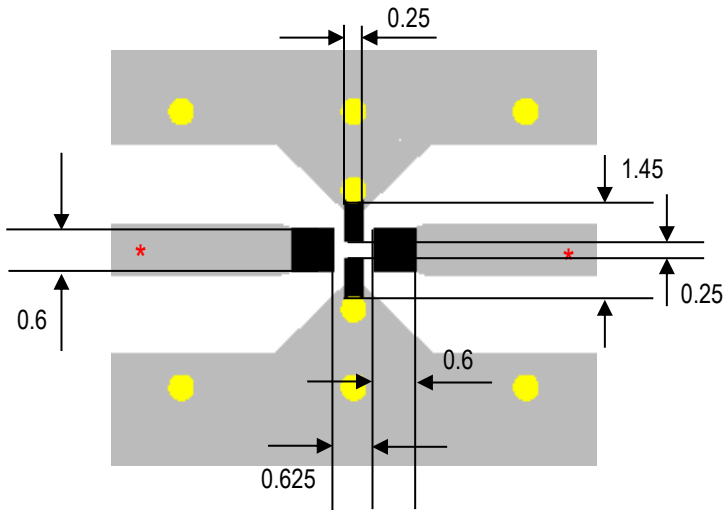
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

<sup>4</sup> The termination type is Silver. Go to <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile> for Typical Soldering Profile. SAC 305 solder paste recommended.



**Recommended PCB Layout**

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

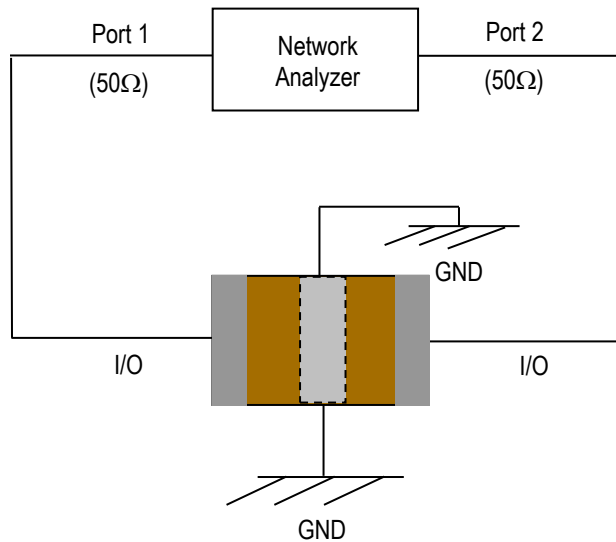
Land

Through-hole ( $\phi$  0.35)

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

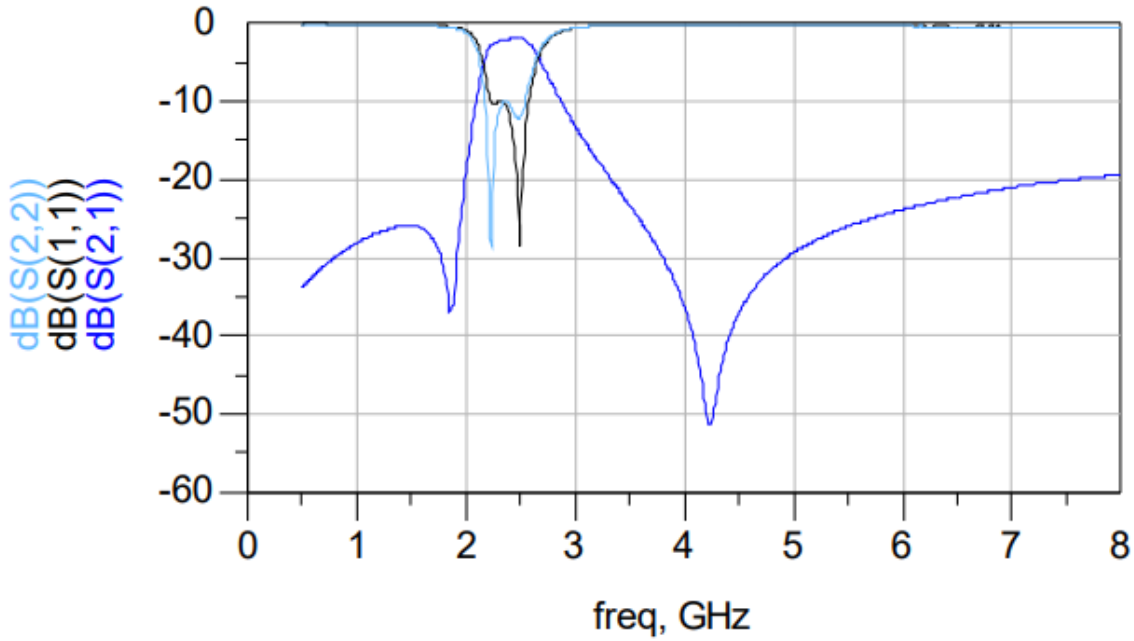
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



**RF Measurement (T = 25°C)**

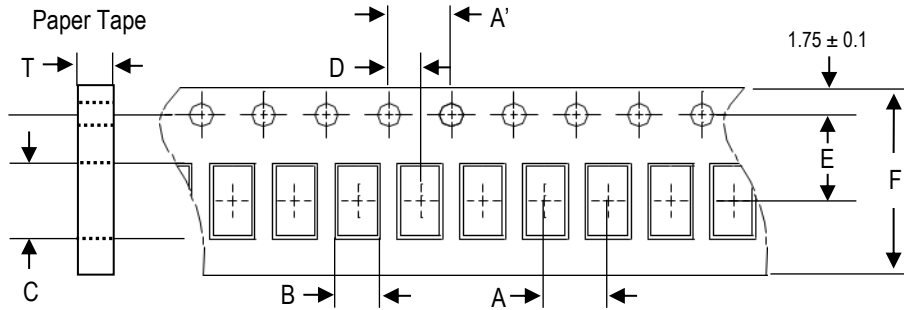
**Insertion Loss, Return Loss and Attenuation**



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

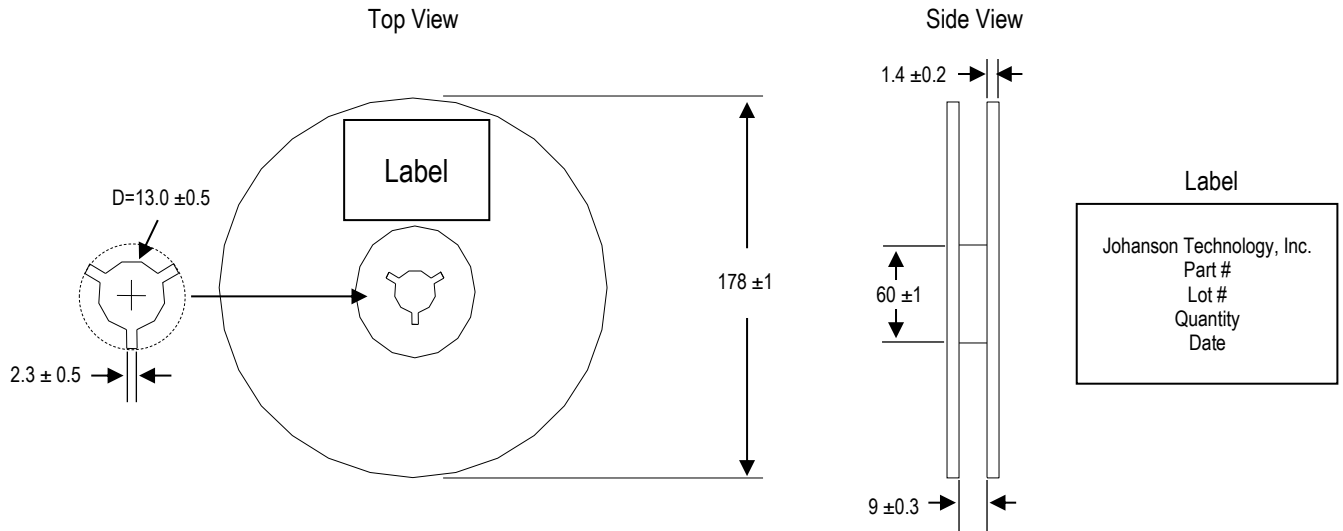
**Tape and Reel Specification (Units in mm)**

**Tape Dimensions**

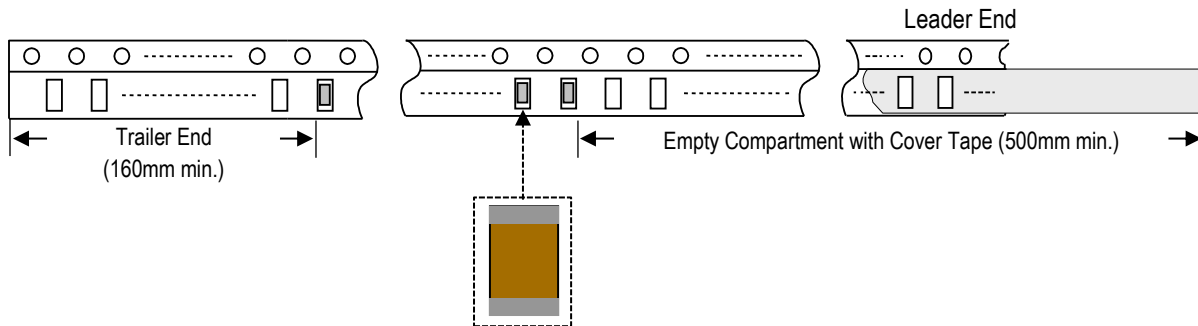


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2.0 ±0.05	4.0 ±0.1	0.62 ±0.03	1.12 ±0.03	2.0 ±0.05	3.5 ±0.05	8.0 ±0.1	0.43 ±0.03	10,000 pcs.	Paper

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Number**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP07A0100001B	Silver
T & R (7" Reel Paper Tape)	2450BP07A0100001T (Qty: 10,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP07A0100001CE1	

**Important Links**

[2450BP07A0100001T 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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