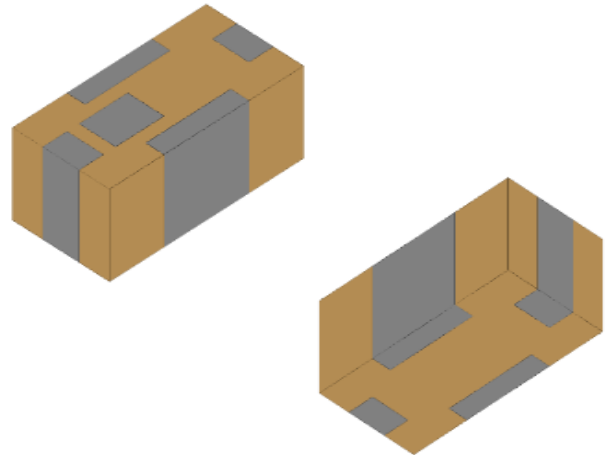


2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for wireless communication systems: Bluetooth, WLAN, Hyper-LAN, etc.
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0603
- RoHS complaint



General Specifications^{1 2}

Insertion Loss (dB)	2400 – 2500 MHz	1.5 Typ.	1.7 Max.
Return Loss (dB)	2400 – 2500 MHz		9.5 Min.
Attenuation (dB)	880 – 915 MHz	35 Typ.	30 Min.
	1710 – 1785 MHz	35 Typ.	30 Min.
	1850 – 1910 MHz	27 Typ.	25 Min.
	4800 – 5000 MHz	30 Typ.	25 Min.
	7200 – 7500 MHz	23 Typ.	15 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.

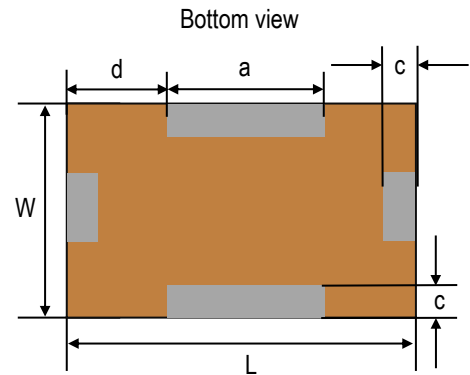
¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 2450BP14D0100001CE1.

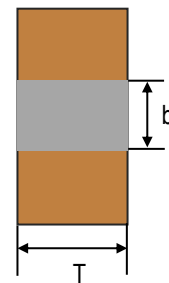
³ 18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile>.

Mechanical Dimensions

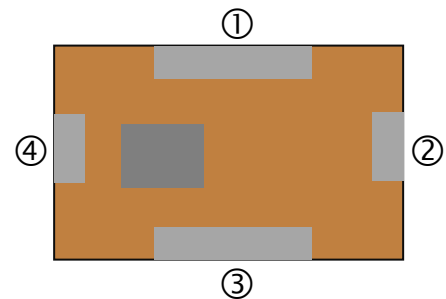
	Inches			Millimeters		
L	0.063	±	0.004	1.60	±	0.10
W	0.031	±	0.004	0.80	±	0.10
T	0.024	±	0.004	0.60	±	0.10
a	0.028	±	0.006	0.70	±	0.15
b	0.012	±	0.004	0.30	±	0.10
c	0.006	±	0.004	0.15	±	0.10
d	0.018	±	0.006	0.45	±	0.15



Side view



Top view



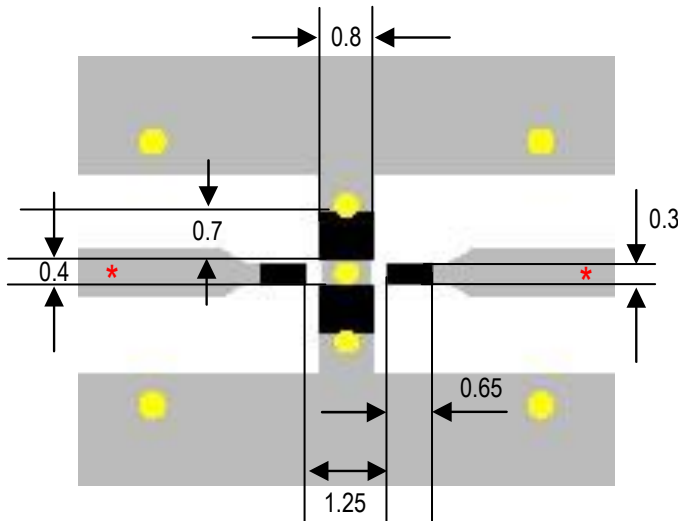
Terminal Configuration⁴

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/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

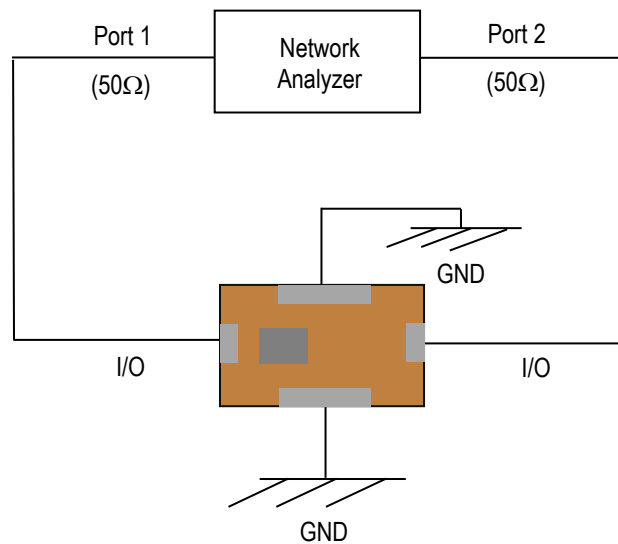
 Land

 Through-hole ($\phi 0.35$)

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

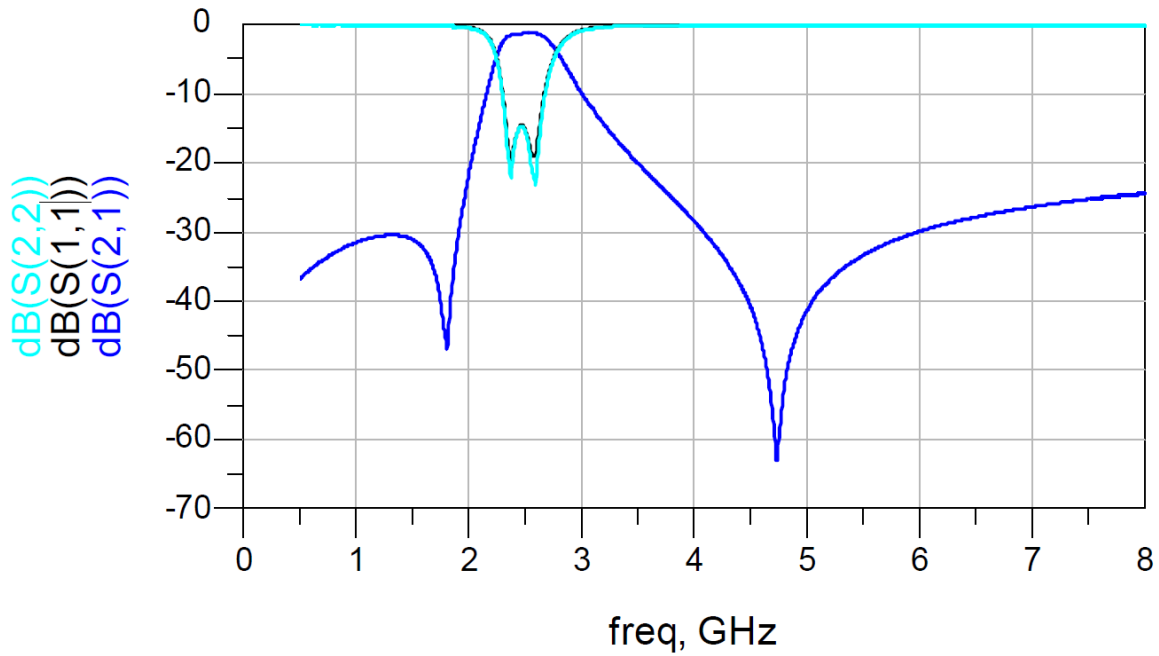
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

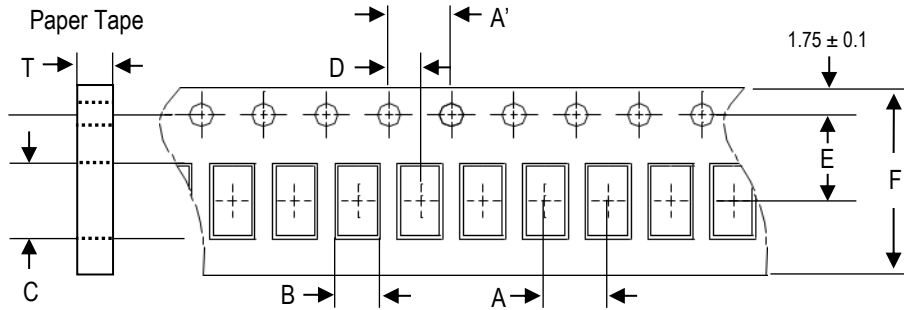
Insertion Loss, Return Loss and Attenuation



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

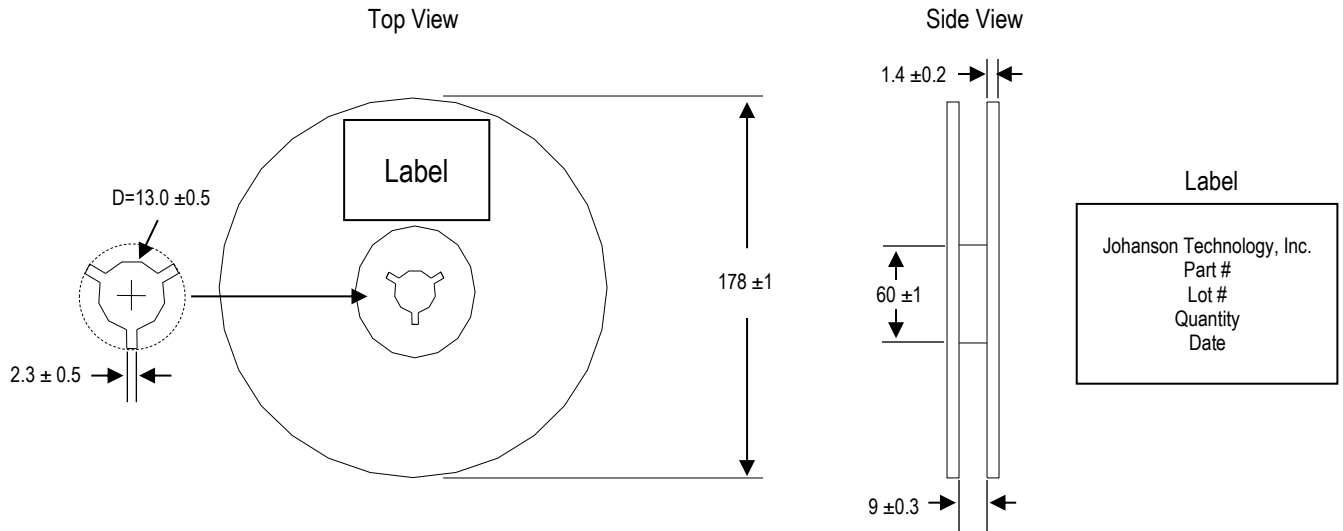
Tape and Reel Specification (Units in mm)

Tape Dimensions

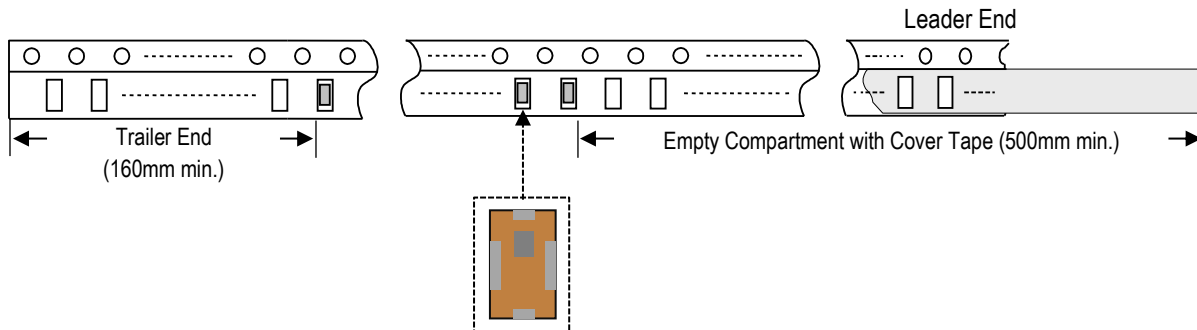


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2.0 ±0.1	4.0 ±0.1	1.1 ±0.1	1.92 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	0.75 ±0.05	4,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP14D0100001B	Silver
T & R (7" Reel Paper Tape)	2450BP14D0100001T (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP14D0100001CE1	

Important Links

[2450BP14D0100001T 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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