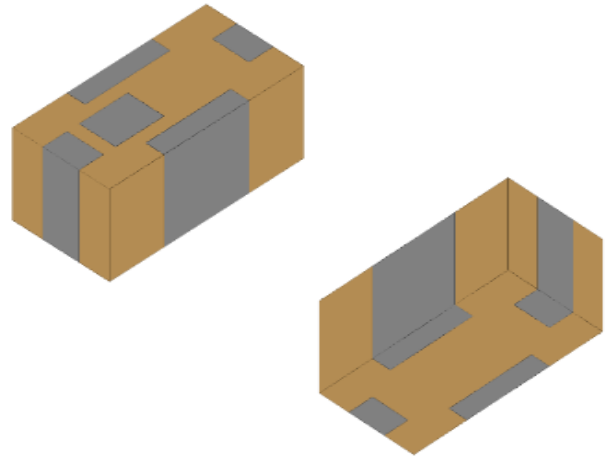


2.45 GHz Band Pass Filter

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



General Specifications^{1 2}

Insertion Loss (dB)	2400 – 2500 MHz	1.9 Typ.	2.0 Max.
Return Loss (dB)	2400 – 2500 MHz		11.0 Min.
Attenuation (dB)	824 – 960 MHz	44 Typ.	40 Min.
	1710 – 1990 MHz	45 Typ.	27 Min.
	2110 MHz	21 Typ.	15 Min.
	4800 - 5000 MHz	47 Typ.	40 Min.
	7200 – 7500 MHz	34 Typ.	25 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 ³	45% - 75% RH +5 to +35 °C 18 Months Max.

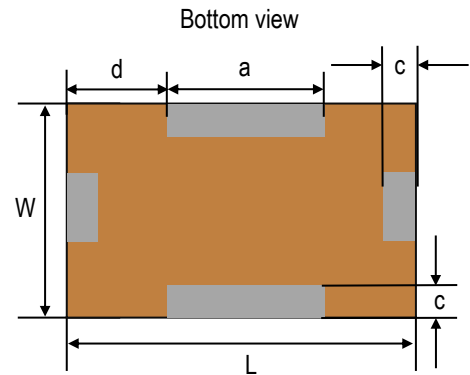
¹ Typical value represents average measurement at 25°C. Min./Max. values represent measurements over specified operating temperature.

² General specifications measured on Johanson's evaluation board P/N 2450BP14G0100001CE1.

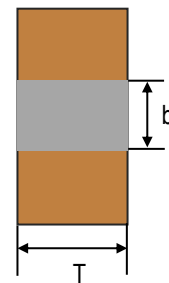
³ 18 months max. in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags. For more info go to <https://www.johansontechnology.com/tech-notes/silver-leaded-components-soldering-profile>.

Mechanical Dimensions

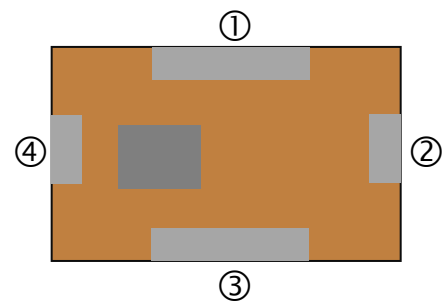
	Inches			Millimeters		
L	0.063	±	0.004	1.60	±	0.10
W	0.031	±	0.004	0.80	±	0.10
T	0.024	±	0.004	0.60	±	0.10
a	0.028	±	0.006	0.70	±	0.15
b	0.012	±	0.004	0.30	±	0.10
c	0.006	±	0.004	0.15	±	0.10
d	0.018	±	0.006	0.45	±	0.15



Side view



Top view



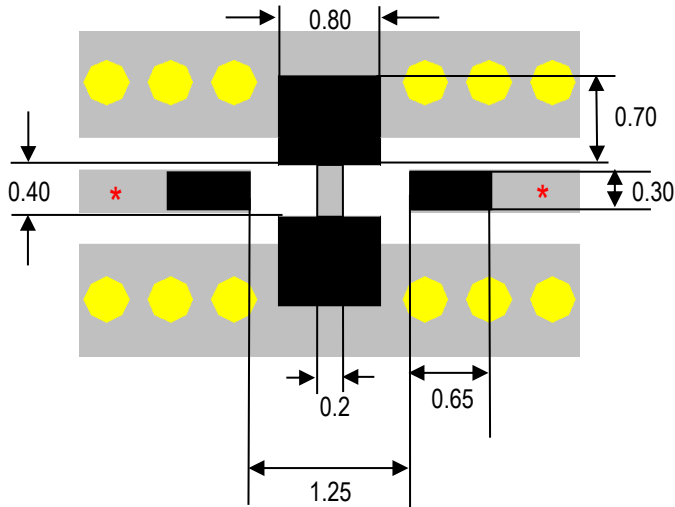
Terminal Configuration⁴

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

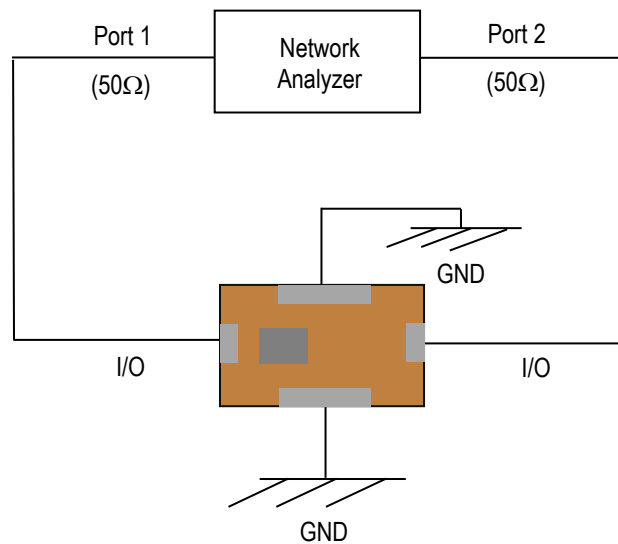
 Land

 Through-hole ($\phi 0.35$)

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

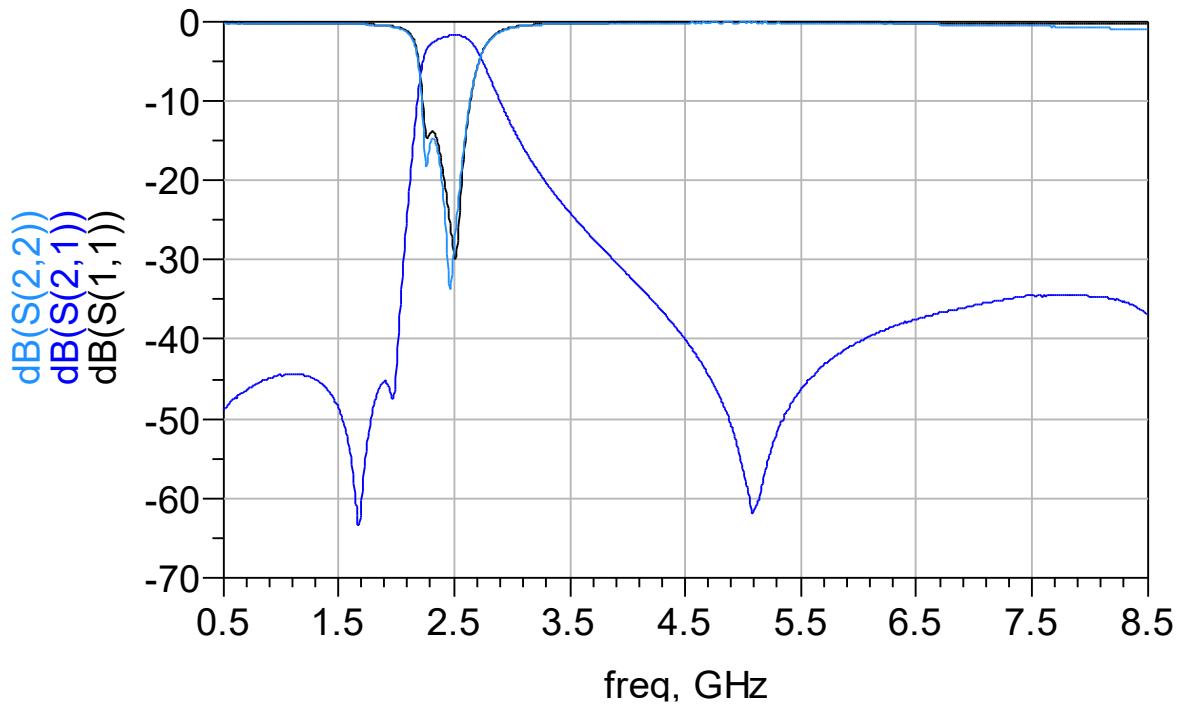
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

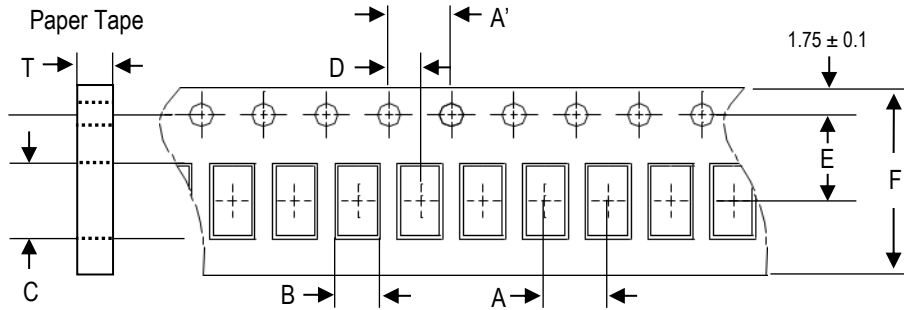
Insertion Loss, Return Loss and Attenuation



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

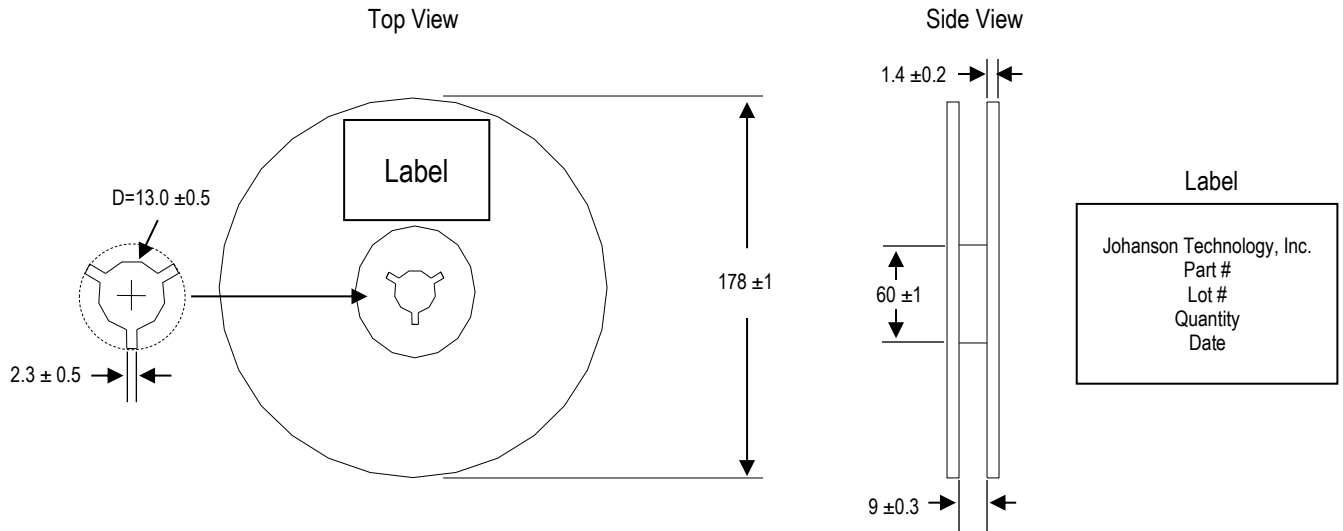
Tape and Reel Specification (Units in mm)

Tape Dimensions

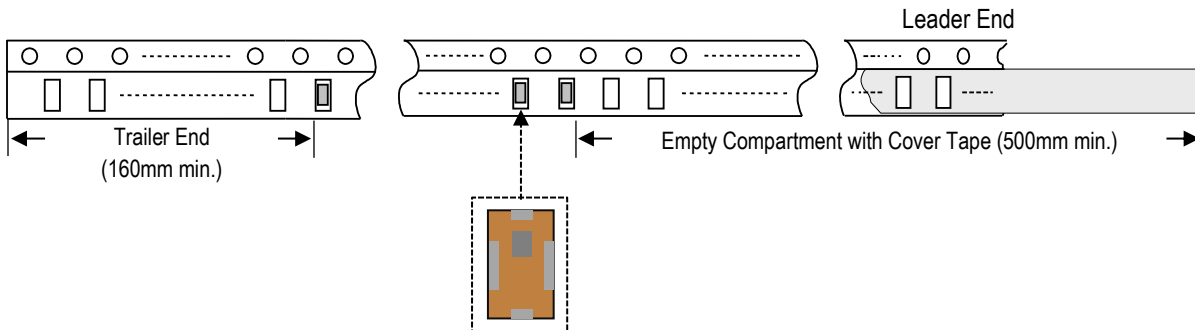


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
2.0 ±0.1	4.0 ±0.1	1.1 ±0.1	1.92 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	0.75 ±0.05	4,000 pcs.	Paper

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP14G0100001B	Silver
T & R (7" Reel Paper Tape)	2450BP14G0100001T (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	2450BP14G0100001CE1	

Important Links

[2450BP14G0100001T 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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