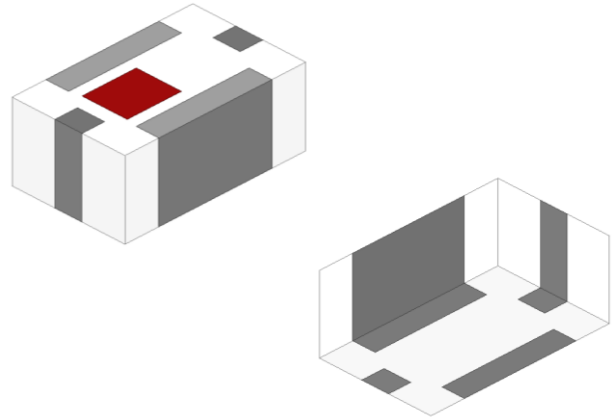


2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for wireless communication systems: Bluetooth, WLAN, Hyper-LAN, etc.
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant



General Specifications^{1 2}

Insertion Loss (dB)	2400 – 2500 MHz	1.5 Typ.	1.8 Max.
Return Loss (dB)	2400 – 2500 MHz		9.5 Min.
Attenuation (dB)	1200 – 1300 MHz		25 Min.
	2000 MHz		10 Min.
	3000 MHz		12 Min.
	3600 - 3800 MHz		30 Min.
	4800 - 5000 MHz		34 Min.

Maximum Ratings

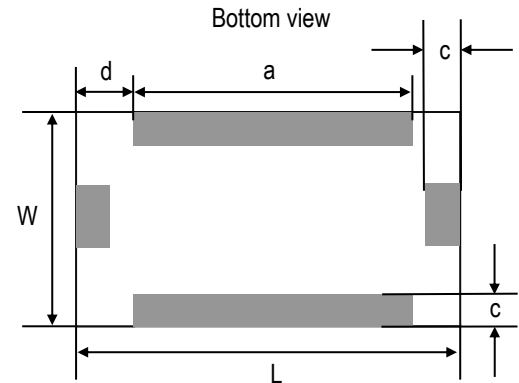
Power Capacity (W)	2 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35
	18 Months Max.

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

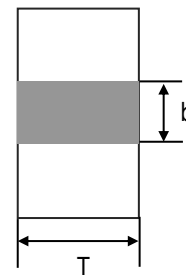
² General specifications measured on Johanson's evaluation board P/N 2450BP15H0100001CE1.

Mechanical Dimensions

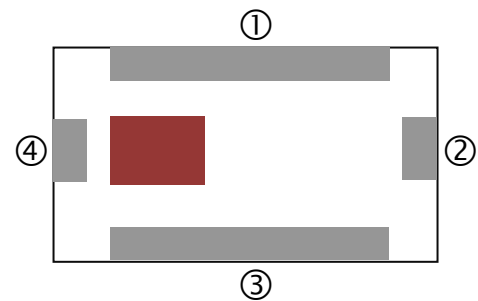
	Inches			Millimeters		
L	0.079	±	0.006	2.00	±	0.15
W	0.049	±	0.004	1.25	±	0.10
T	0.022	±	0.004	0.55	±	0.10
a	0.051	±	0.006	1.30	±	0.15
b	0.012	±	0.006	0.30	±	0.15
c	0.010	±	0.006	0.25	±	0.15
d	0.014	±	0.006	0.35	±	0.15



Side view



Top view



Terminal Configuration³

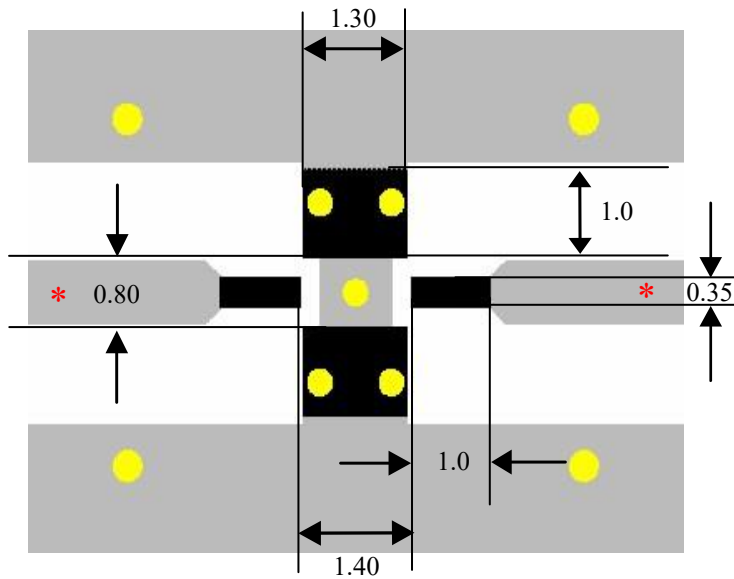
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

³ The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/ipcsoldering-profile> for Typical Soldering Profile.



Recommended PCB Layout

Note: Mount device with colored mark facing up.



Units in mm

Solder Resist

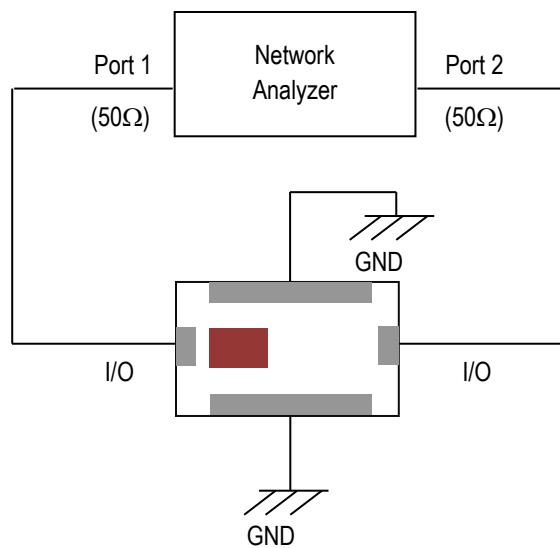
Land

Through-hole (ϕ 0.35)

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

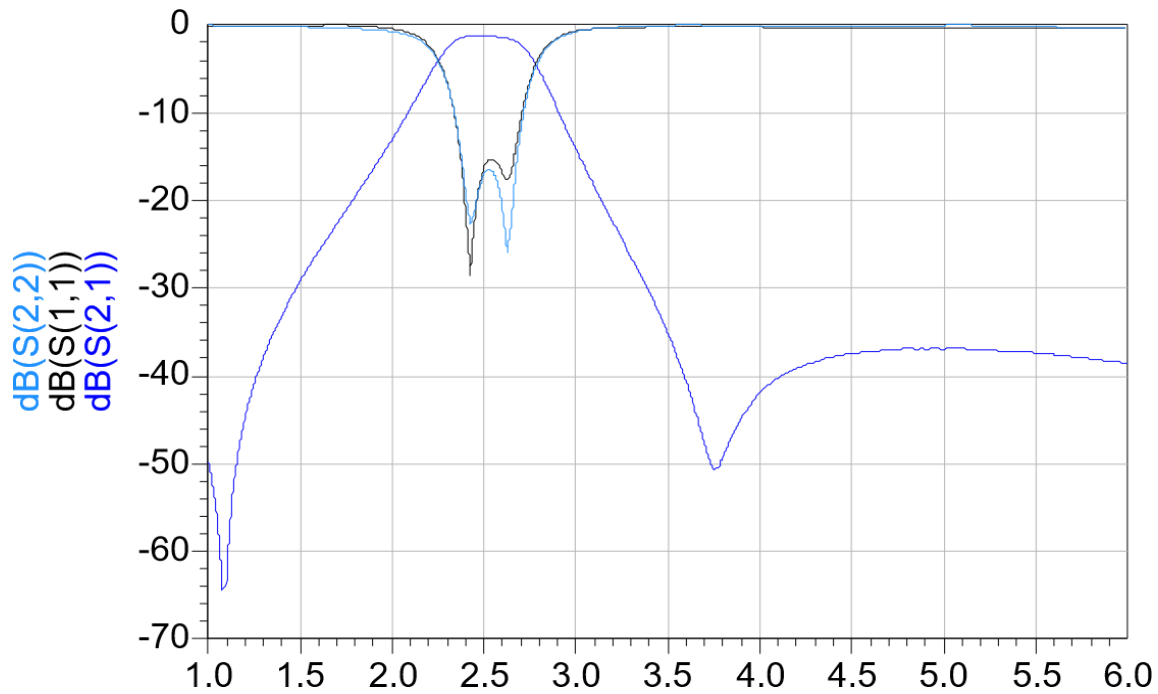
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

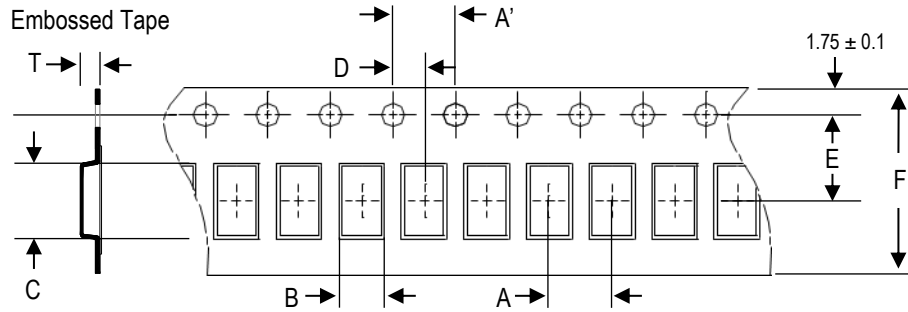
Insertion Loss, Return Loss and Attenuation



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

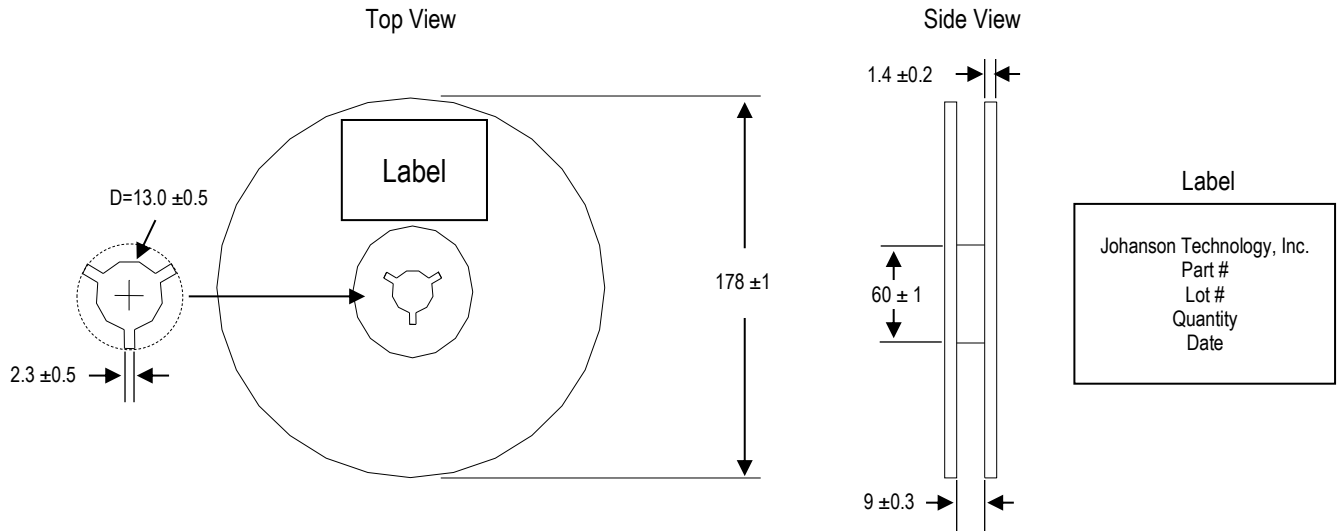
Tape and Reel Specification (Units in mm)

Tape Dimensions

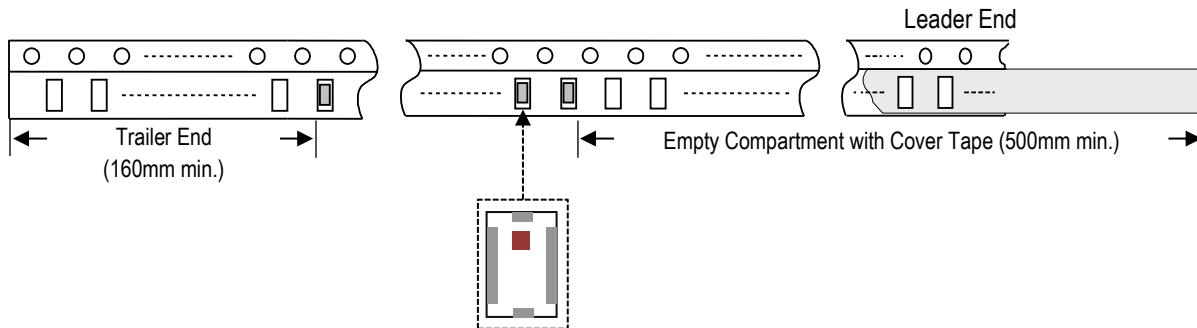


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP15H0100001B	Nickel Tin
T & R (7" Reel Embossed Tape)	2450BP15H0100001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP15H0100001CE1	

Important Links

[2450BP15H0100001E 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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