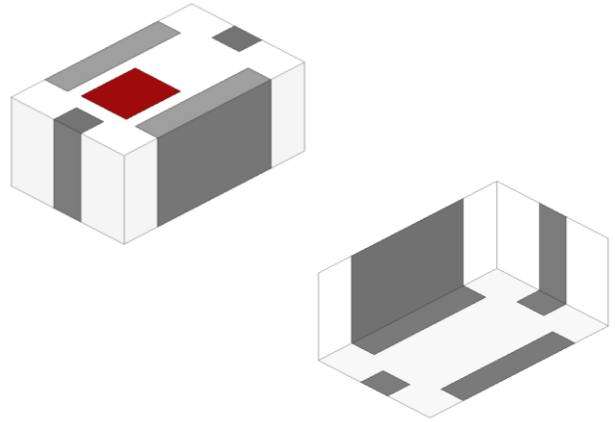


2.45 GHz Band Pass Filter

- 2400 - 2500 MHz passband
- Fit for wireless communication systems
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant



General Specifications^{1 2}

Insertion Loss (dB)	2400 – 2500 MHz	2.2 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

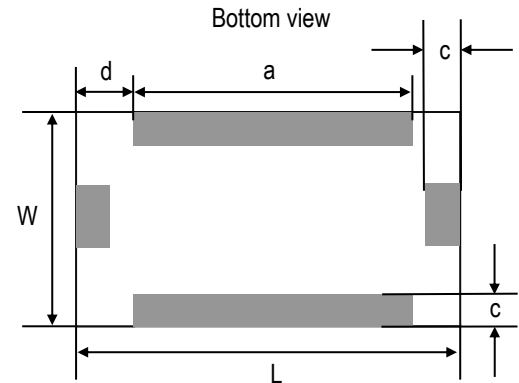
Power Capacity (W)	0.5 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35
	18 Months Max.

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

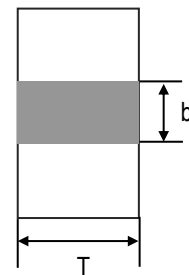
² General specifications measured on Johanson's evaluation board P/N 2450BP15B0100001CE1.

Mechanical Dimensions

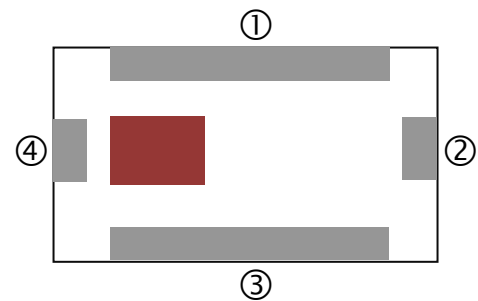
	Inches			Millimeters		
L	0.079	±	0.006	2.00	±	0.15
W	0.049	±	0.004	1.25	±	0.10
T	0.022	±	0.004	0.55	±	0.10
a	0.051	±	0.006	1.30	±	0.15
b	0.012	±	0.006	0.30	±	0.15
c	0.010	±	0.006	0.25	±	0.15
d	0.014	±	0.006	0.35	±	0.15



Side view



Top view



Terminal Configuration³

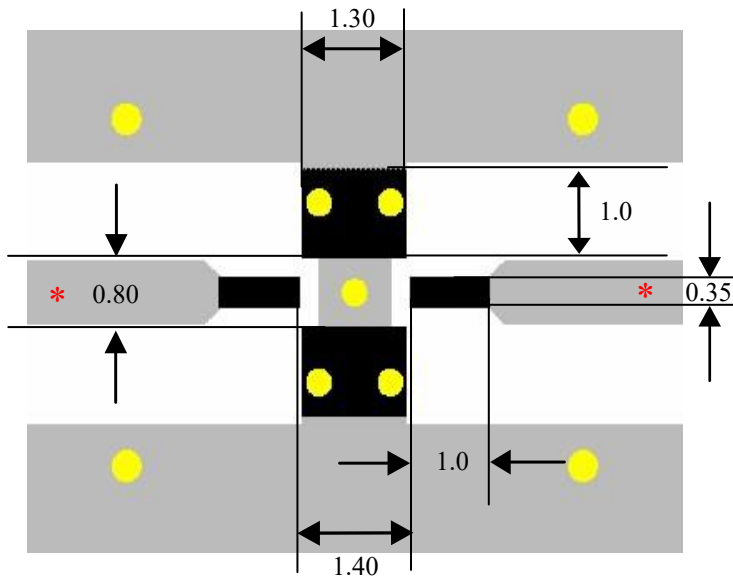
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

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

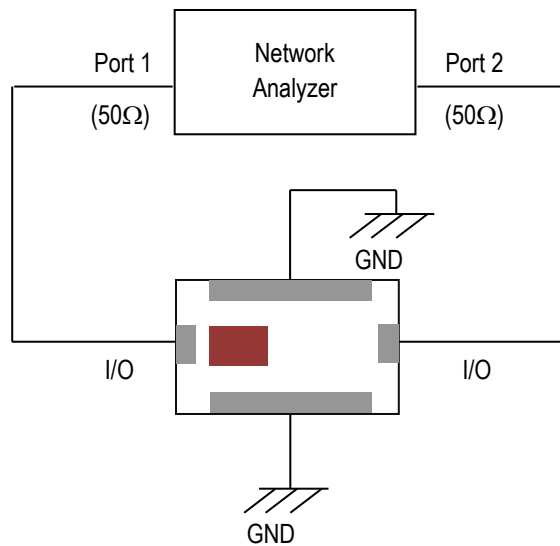
Land

Through-hole (ϕ 0.35)

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

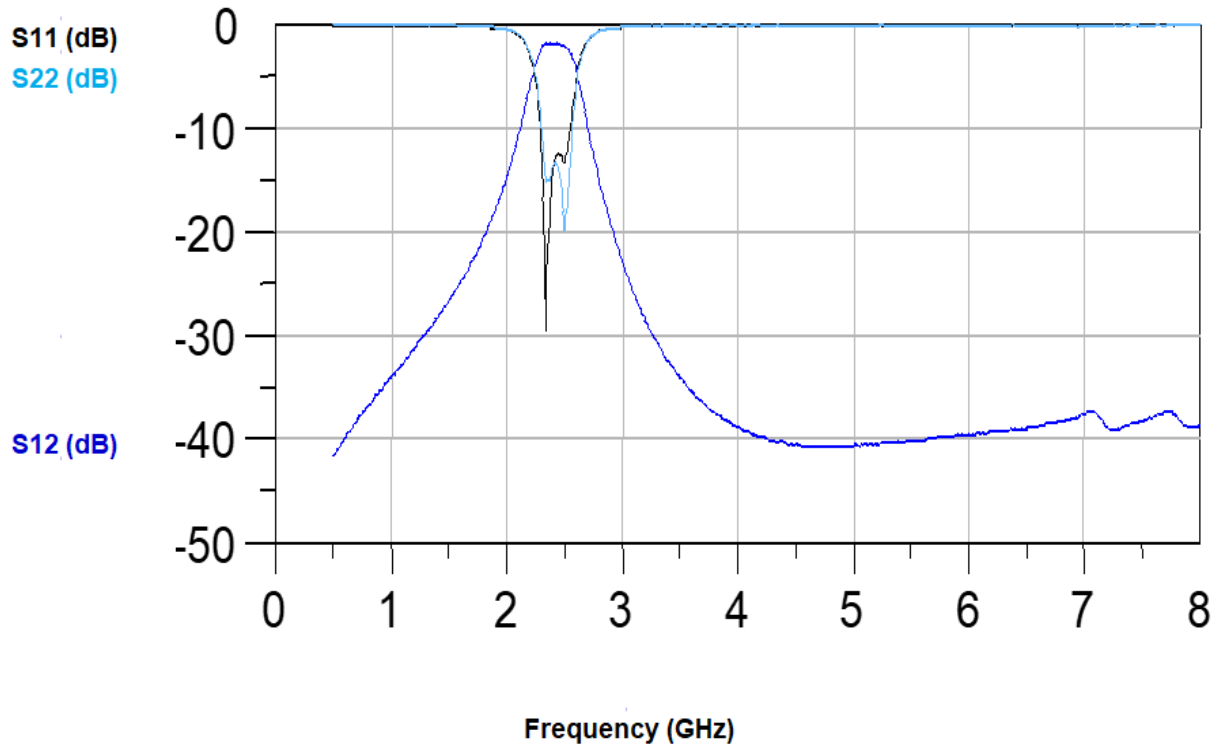
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

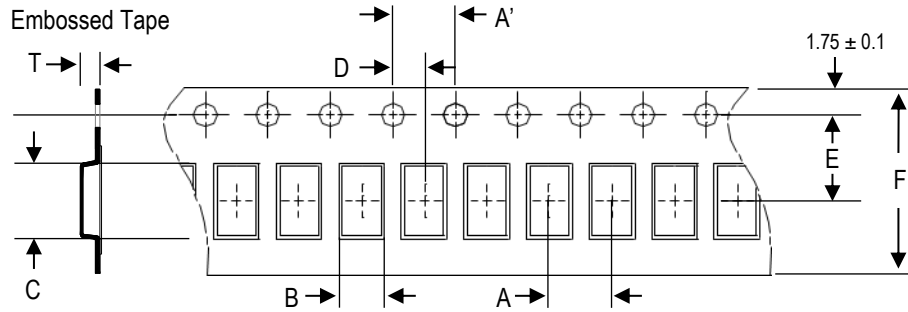
Insertion Loss, Return Loss and Attenuation



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

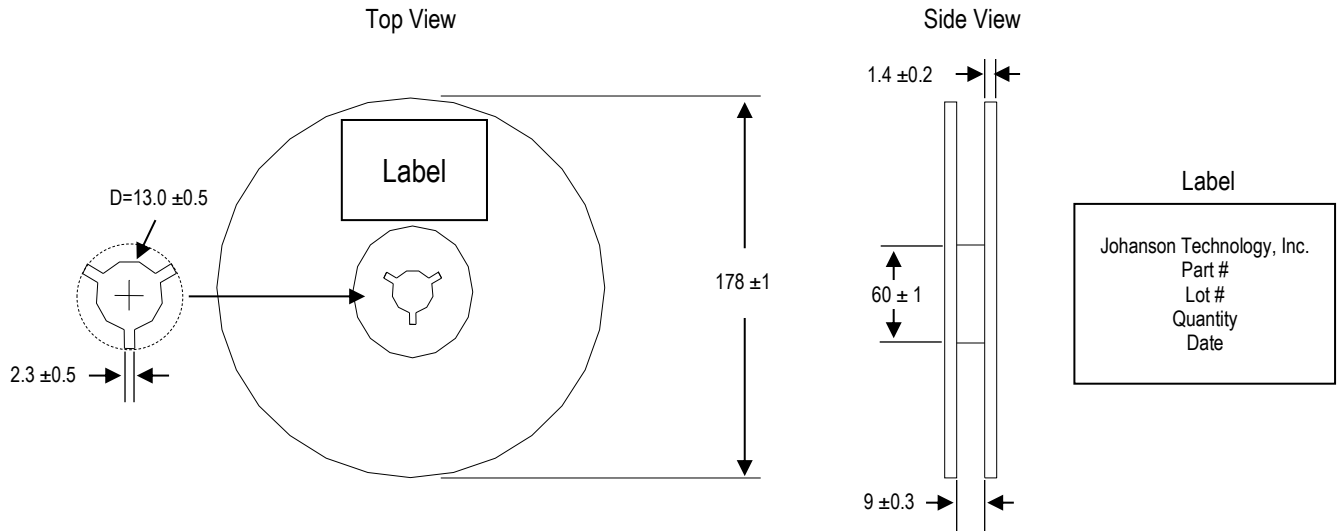
Tape and Reel Specification (Units in mm)

Tape Dimensions

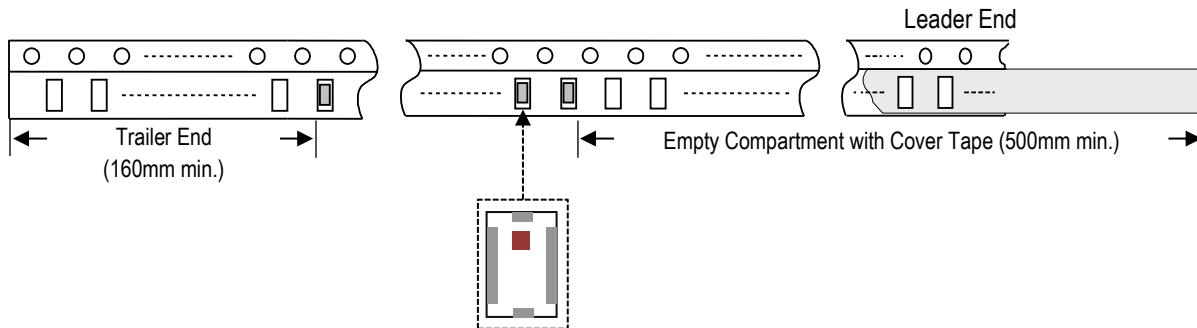


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	2450BP15B0100001B	Nickel Tin
T & R (7" Reel Embossed Tape)	2450BP15B0100001E (Qty: 4,000 pcs/reel)	
Evaluation Board with 2 SMA Connectors	2450BP15B0100001CE1	

Important Links

[2450BP15B0100001E 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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