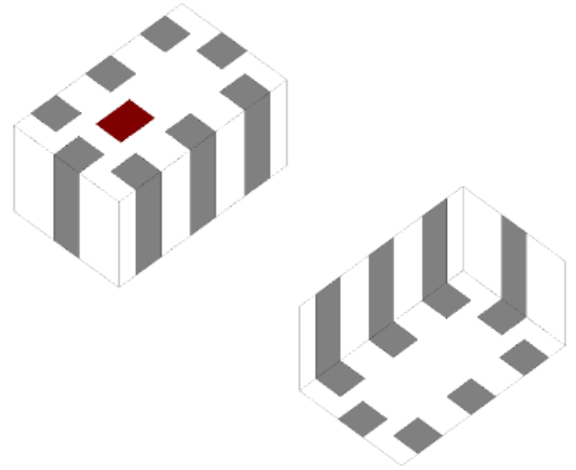


## 4.0 GHz Band Pass Filter

- 3100 - 4900 MHz passband
- Fit for wireless communication systems
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 0805
- RoHS compliant



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

Insertion Loss (dB)	3100 - 4900 MHz	2.0 Max.
Return Loss (dB)	3100 - 4900 MHz	8.5 Min.
Attenuation (dB)	800 - 2000 MHz	25 Min.
	6200 - 9600 MHz	13 Min.

### Maximum Ratings

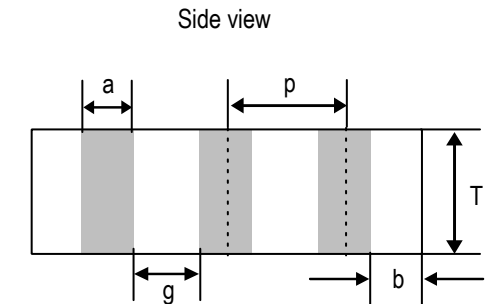
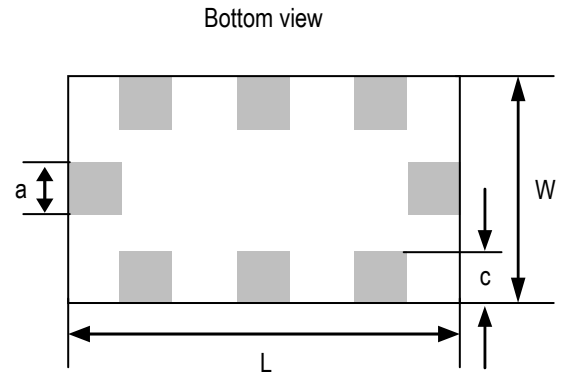
Power Capacity (W)	0.5 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35
	18 Months Max.

<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 4000BP15U1800001CE1.

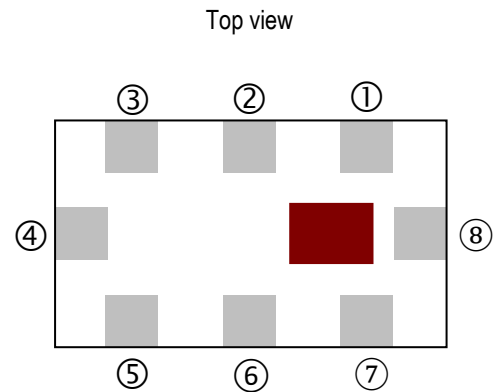
**Mechanical Dimensions**

	Inches			Millimeters		
<b>L</b>	0.079	±	0.004	2.00	±	0.10
<b>W</b>	0.049	±	0.004	1.25	±	0.10
<b>T</b>	0.028	±	0.004	0.70	±	0.10
<b>a</b>	0.012	±	0.004	0.30	±	0.10
<b>b</b>	0.008	±	0.004	0.20	±	0.10
<b>c</b>	0.012	+0.004/-0.008		0.30	+0.10/-0.20	
<b>g</b>	0.014	±	0.004	0.35	±	0.10
<b>p</b>	0.026	±	0.002	0.65	±	0.05



**Terminal Configuration<sup>3</sup>**

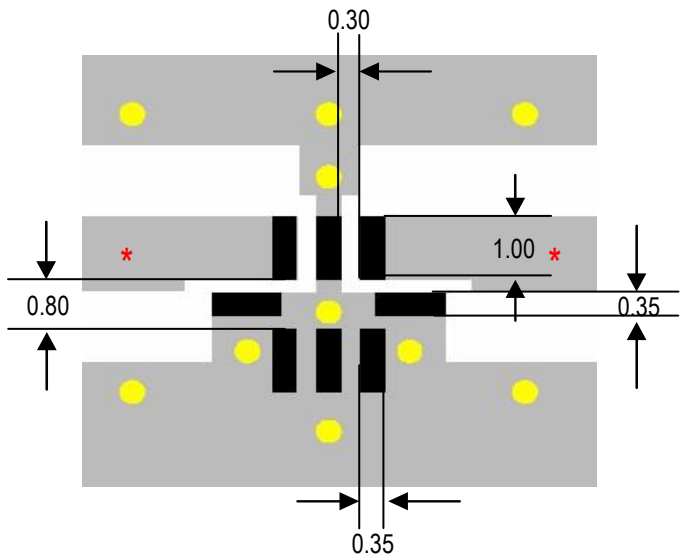
Pin Number	Function
1	INPUT/OUTPUT
2	GND
3	INPUT/OUTPUT
4	GND
5	GND
6	GND
7	GND
8	GND






<sup>3</sup> 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.



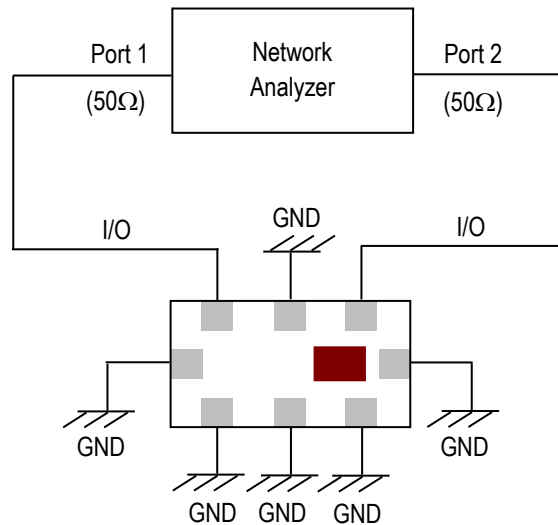
Units in mm

-  Solder Resist
-  Land
-  Through-hole ( $\phi$  0.35)

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

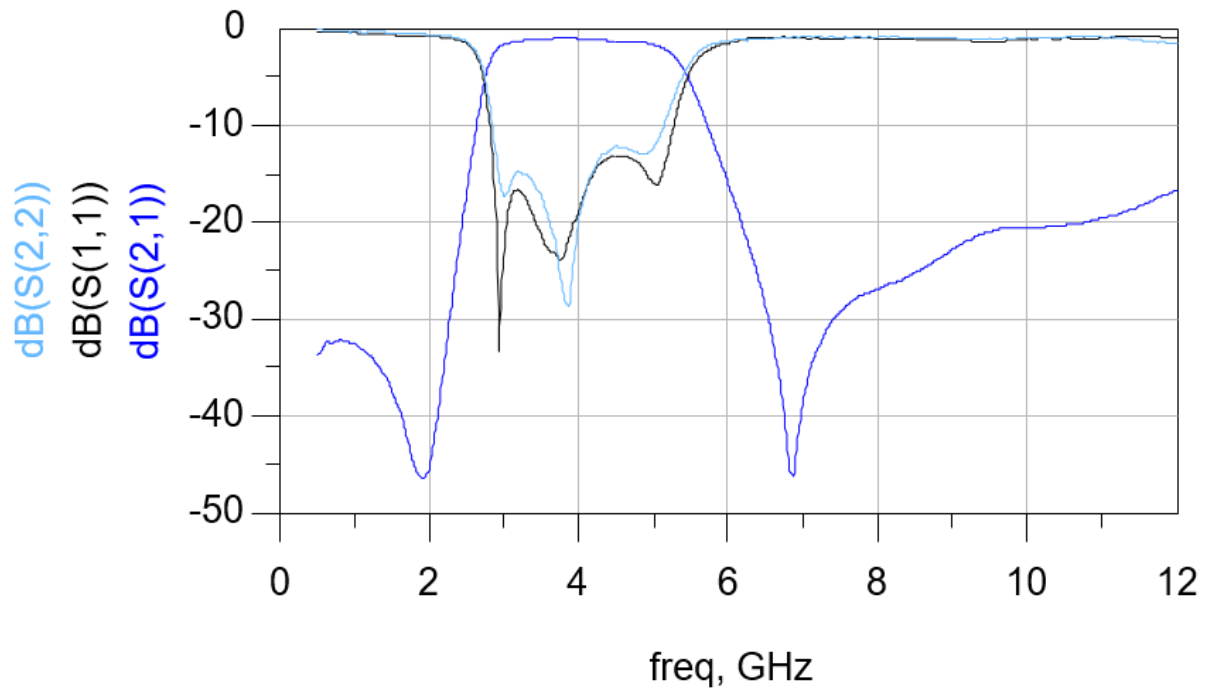
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

**Measuring Diagram**



**RF Measurement (T = 25°C)**

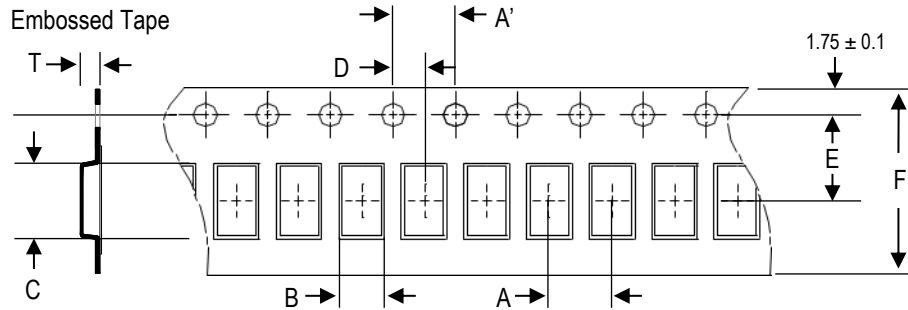
**Insertion Loss, Return Loss and Attenuation**



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

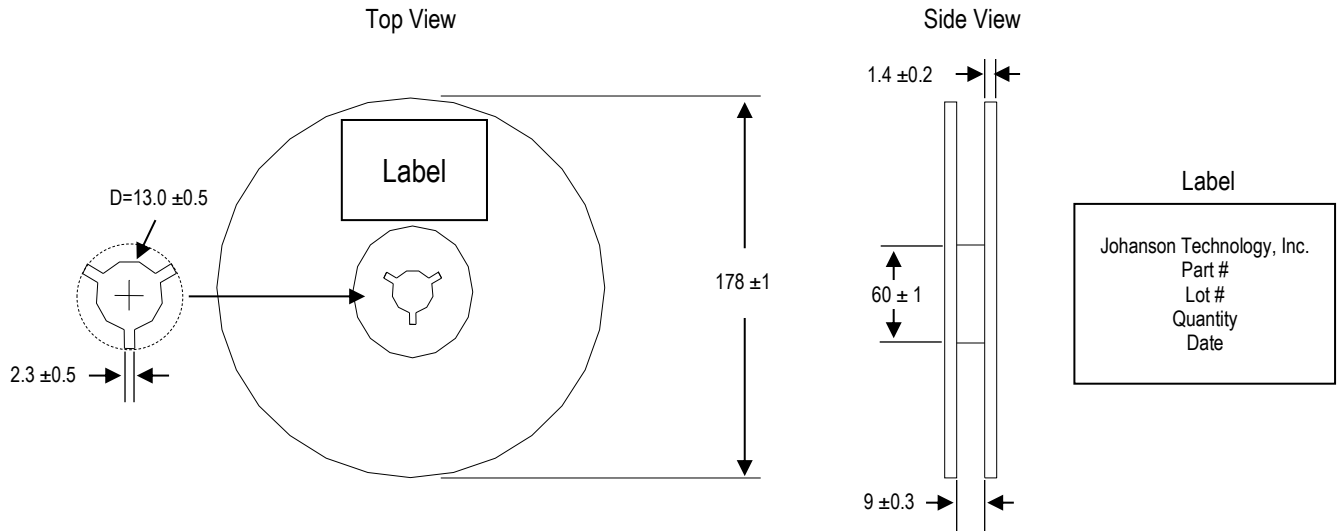
**Tape and Reel Specification (Units in mm)**

**Tape Dimensions**

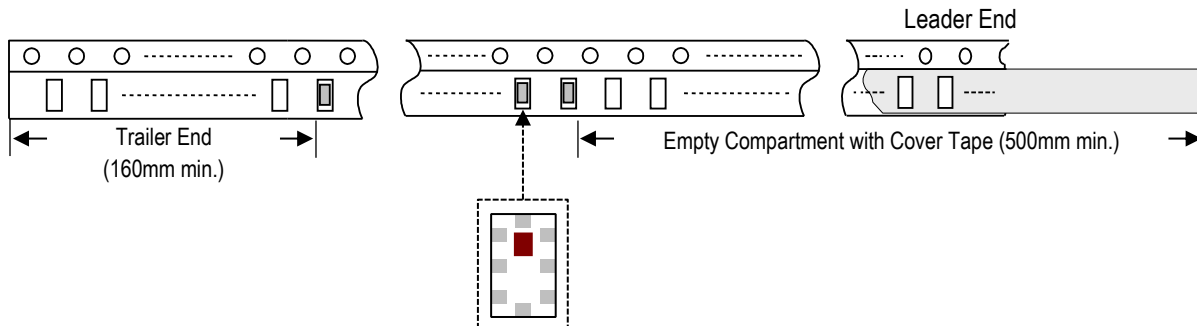


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	1.35 ±0.05	2.15 ±0.05	2.0 ±0.05	3.5 ±0.1	8.0 ±0.1	1.08 ±0.05	4,000pcs.	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Number**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	4000BP15U1800001B	Nickel Tin
T & R (7" Reel Embossed Tape)	4000BP15U1800001E (Qty: 4,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	4000BP15U1800001CE1	

**Important Links**

[4000BP15U1800001E 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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