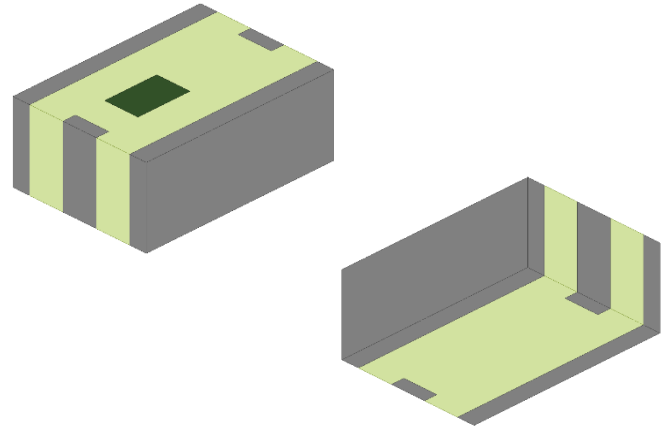


## 6.5 GHz Band Pass Filter

- 5925 – 7125 MHz passband
- Fit for wireless communication systems: UNII bands 5-8
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1812
- RoHS complaint



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

Insertion Loss (dB)	5925 – 7125 MHz	2.3 Typ.	3.0 Max.
Insertion Loss Ripple (dB)	5925 – 7125 MHz	1.9 Typ.	2.5 Max.
Return Loss (dB)	5925 – 7125 MHz	11.7 Typ.	9.5 Min.
Attenuation (dB)	30 – 1700 MHz	41 Typ.	35 Min.
	1982 – 2370 MHz	39 Typ.	35 Min.
	2400 – 2500 MHz	39 Typ.	35 Min.
	3960 – 4740 MHz	38 Typ.	33 Min.
	4500 - 5150 MHz	41 Typ.	35 Min.
	5170 – 5650 MHz	52 Typ.	50 Min.
	8250 – 9440 MHz	9 Typ.	6 Min.
	11850 – 14210 MHz	34 Typ.	20 Min.

### Maximum Ratings

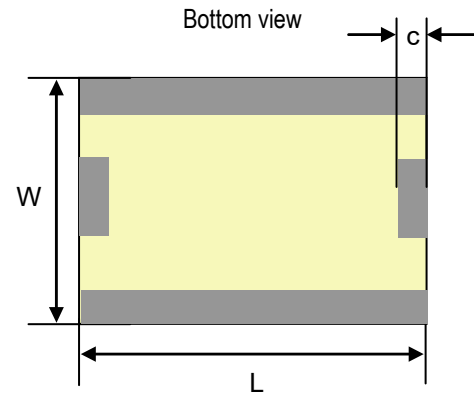
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH +5 to +35°C 18 Months Max.

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

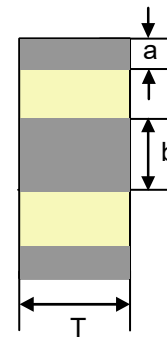
<sup>2</sup> General specifications measured on Johanson's evaluation board PN 6530BP44A1190001CE1.

**Mechanical Dimensions**

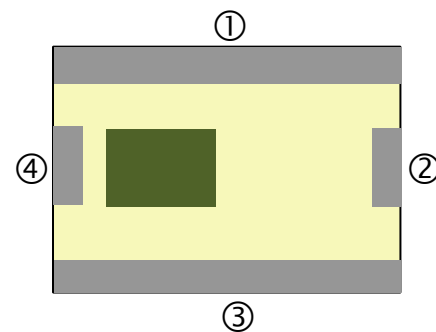
	Inches			Millimeters		
<b>L</b>	0.177	± 0.008		4.50	± 0.20	
<b>W</b>	0.126	± 0.008		3.20	± 0.20	
<b>T</b>	0.087		Max.	2.20		Max.
<b>a</b>	0.016	± 0.008		0.40	± 0.20	
<b>b</b>	0.031	± 0.008		0.80	± 0.20	
<b>c</b>	0.012	± 0.006		0.30	± 0.15	



Side view



Top view

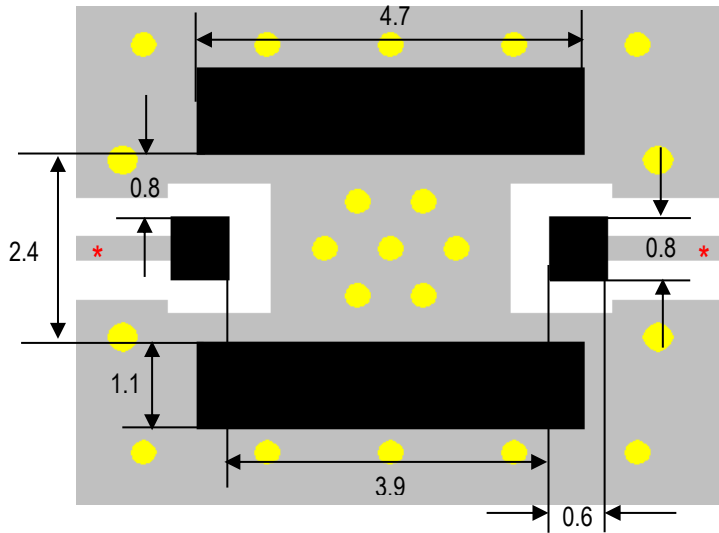


**Terminal Configuration<sup>3</sup>**

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

<sup>3</sup> The termination type is Nickel Tin. Go to: <https://www.johansontechnology.com/tech-notes/typical-soldering-profile-ipc>. Typical Soldering Profile.

**Recommended PCB Layout**



Units in mm

Solder Resist

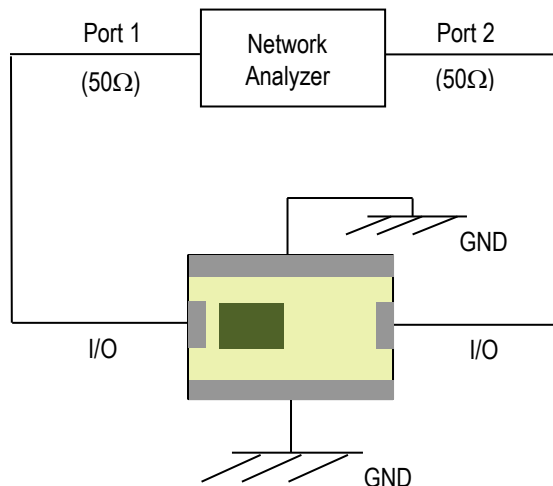
Land

Through-hole ( $\phi 0.3$ )

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

If you would like the full reference design package or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

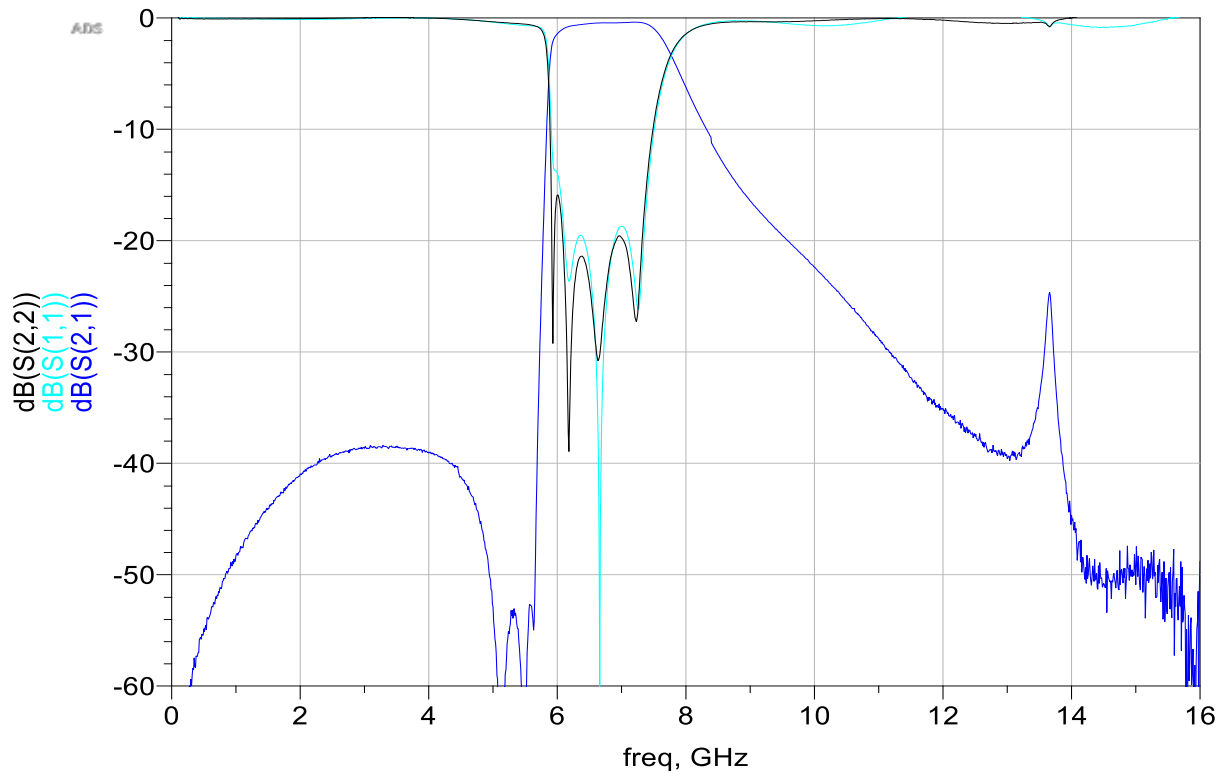
**Measuring Diagram**





**RF Measurements (T = 25°C)**

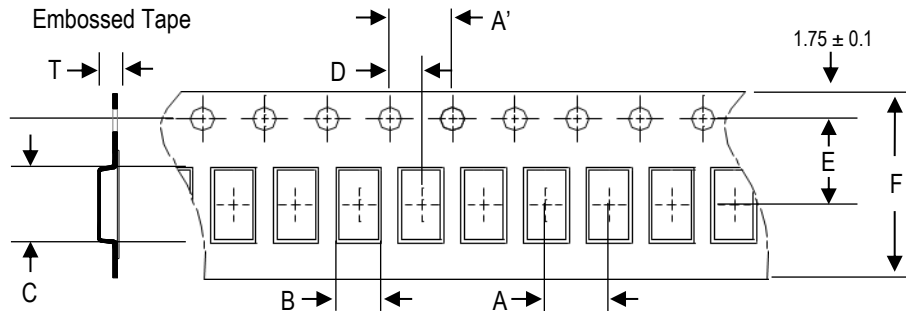
**Insertion Loss and Return Loss**



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

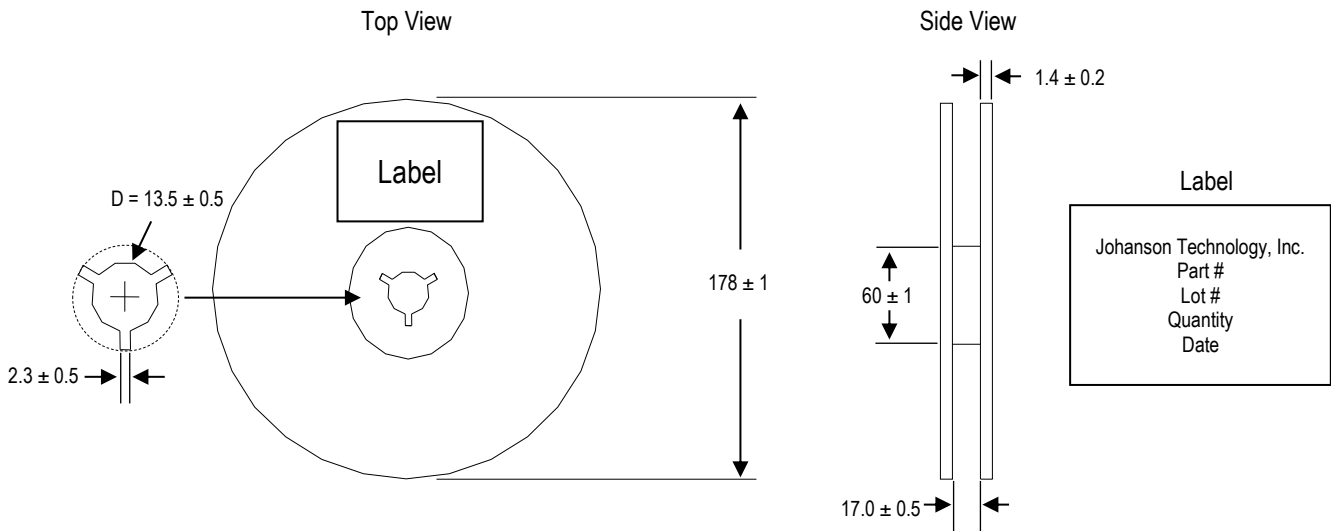
**Tape and Reel Specifications (Units in mm)**

**Tape Dimensions**

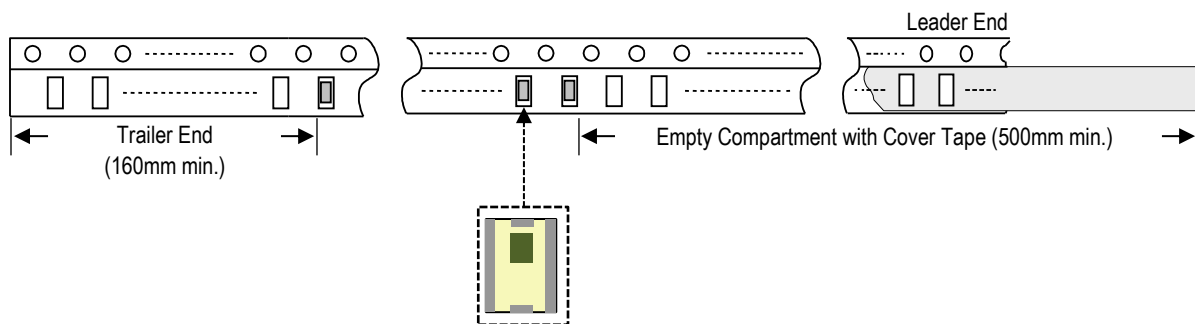


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	4.0 ± 0.1	3.5 ± 0.1	4.9 ± 0.1	2.0 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.1	1,000 pcs	Plastic (Embossed)

**Reel Dimensions**



**Leader and Trailer Dimensions**



**Orderable Part Numbers**

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	6530BP44A1190001B	Nickel Tin
T & R (7" Reel Embossed Tape)	6530BP44A1190001E (Qty: 1,000 pcs./reel)	
Evaluation Board with 2 SMA Connector	6530BP44A1190001CE1	

**Important Links**

[6530BP44A1190001E 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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