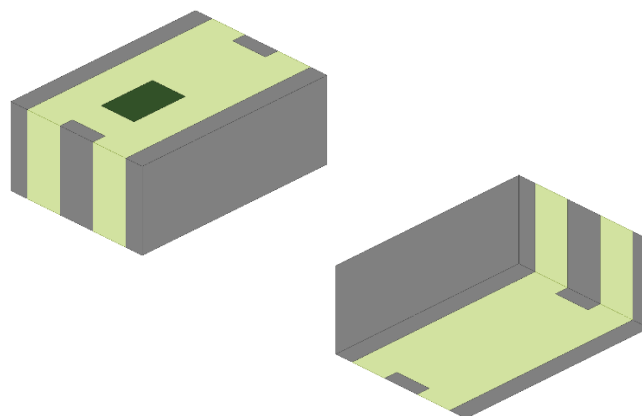




5.5 GHz Band Pass Filter

- 5170 – 5895 MHz passband
- Fit for wireless communication systems: UNII bands 1-4
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1812
- RoHS complaint



General Specifications^{1 2}

Insertion Loss (dB)	5170 – 5815 MHz	2.0 Max.
	5815 – 5825 MHz	2.1 Max.
	5825 – 5835 MHz	2.2 Max.
	5835 – 5850 MHz	2.4 Max.
	5850 – 5895 MHz	2.8 Max.
Insertion Loss Ripple (dB)	5170 – 5815 MHz	1.5 Max.
	5815 – 5825 MHz	0.5 Max.
	5825 – 5835 MHz	0.5 Max.
	5835 – 5850 MHz	0.5 Max.
	5850 – 5895 MHz	1.5 Max.
Return Loss (dB)	5170 – 5815 MHz	9.5 Min.
	5815 – 5825 MHz	9.5 Min.
	5825 – 5835 MHz	9.5 Min.
	5835 – 5850 MHz	9.5 Min.
	5850 – 5895 MHz	9.5 Min.
Attenuation (dB)	30 – 1700 MHz	30 Min.
	1727 – 1935 MHz	30 Min.
	2400 – 2500 MHz	30 Min.
	3453 – 3870 MHz	15 Min.
	6105 - 6145 MHz	30 Min.
	6145 – 7125 MHz	45 Min.
	7235 – 7250 MHz	45 Min.
	7250 – 7740 MHz	45 Min.
	10340 – 11790 MHz	36 Min.
	15510 – 17685 MHz	10 Min.

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

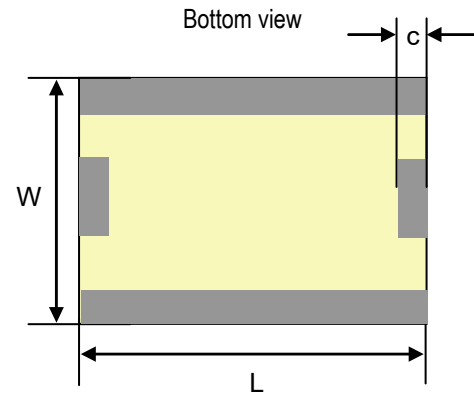
² General specifications measured on Johanson's evaluation board PN 5532BP44A0725001CE1.

Maximum Ratings

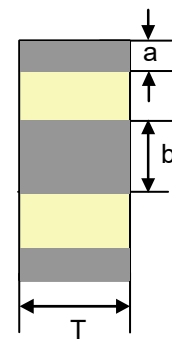
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +85
Recommended Storage Conditions post-installation (°C)	-40 to +85
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35°C
	18 Months Max.

Mechanical Dimensions

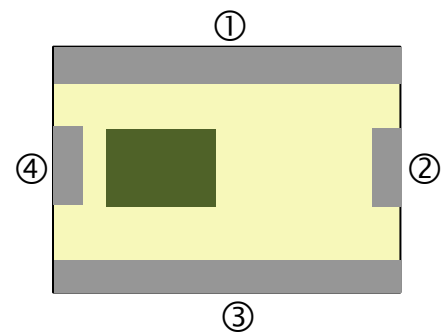
	Inches			Millimeters		
L	0.177	±	0.008	4.50	±	0.20
W	0.126	±	0.008	3.20	±	0.20
T	0.087		Max.	2.20		Max.
a	0.016	±	0.008	0.40	±	0.20
b	0.031	±	0.008	0.80	±	0.20
c	0.012	±	0.006	0.30	±	0.15



Side view



Top view

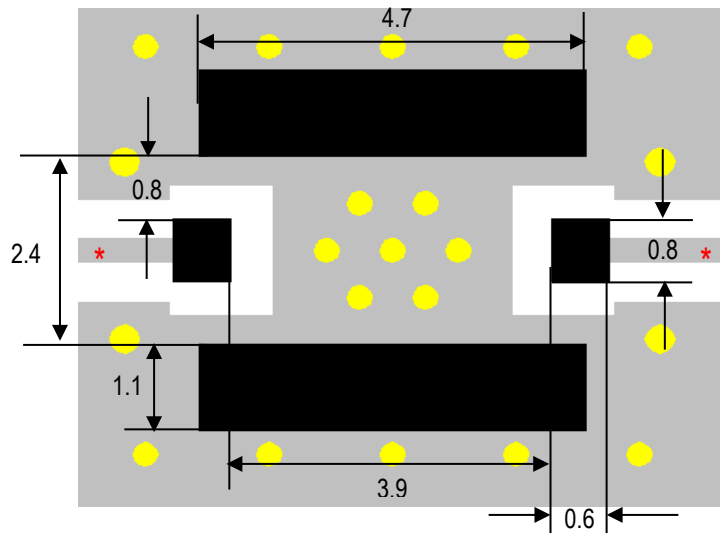


Terminal Configuration³

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/tech-notes/typical-soldering-profile-ipc>. Typical Soldering Profile.

Recommended PCB Layout



Units in mm

 Solder Resist

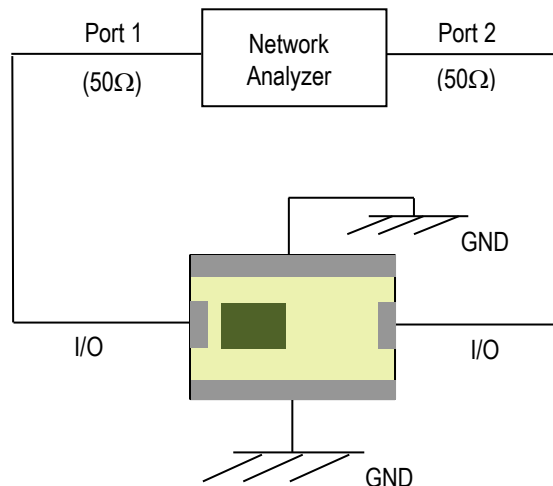
 Land

 Through-hole ($\phi 0.3$)

* Transmission line width should be designed to match 50Ω 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>

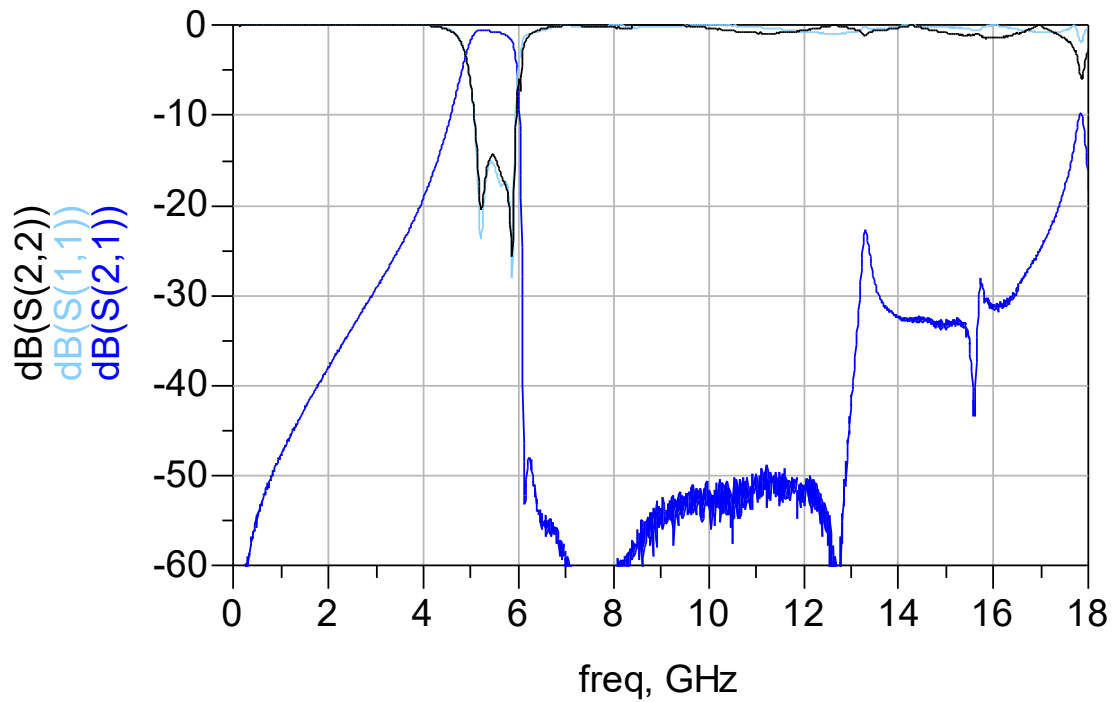
Measuring Diagram





RF Measurements (T = 25°C)

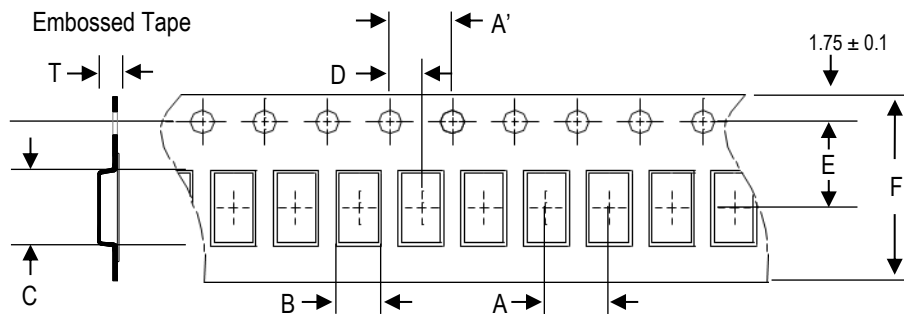
Insertion Loss and Return Loss



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

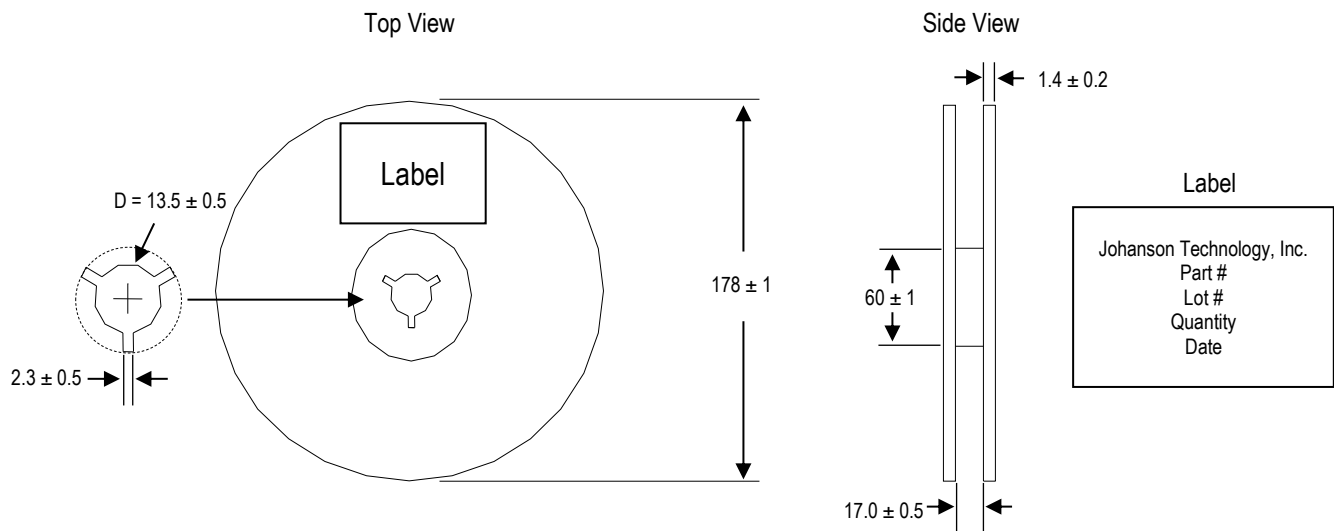
Tape and Reel Specifications (Units in mm)

Tape Dimensions

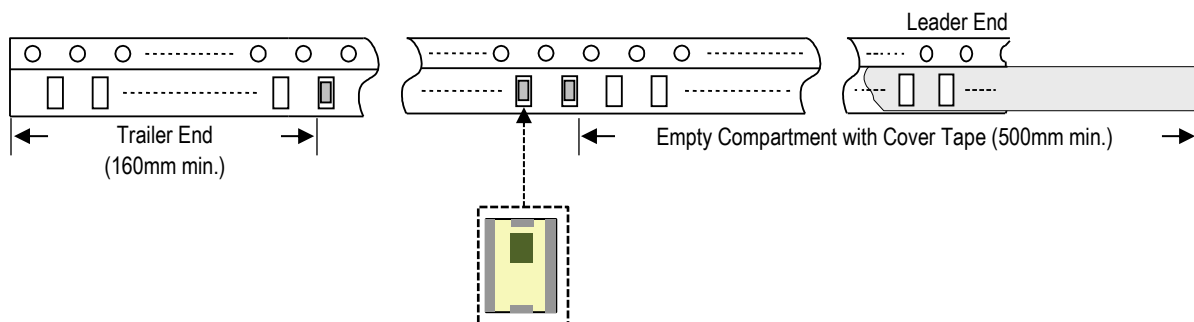


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
8.0 ± 0.1	4.0 ± 0.1	3.5 ± 0.1	4.9 ± 0.1	2.0 ± 0.1	5.5 ± 0.1	12.0 ± 0.1	2.2 ± 0.10	1,000 pcs	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Numbers

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	5532BP44A0725001B	Nickel Tin
T & R (7" Reel Embossed Tape)	5532BP44A0725001E (Qty: 1,000 pcs./reel)	
Evaluation Board with 2 SMA Connector	5532BP44A0725001CE1	

Important Links

[5532BP44A0725001E 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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