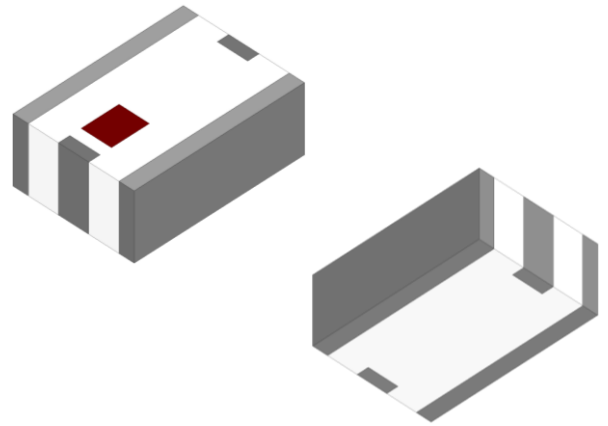


3.96 GHz Band Pass Filter

- 3168 - 4752 MHz passband
- Fit for wireless communication systems
- Low insertion loss
- High out-of-band rejection
- SMD, EIA 1008
- RoHS complaint



General Specifications^{1 2}

Insertion Loss (dB)	3168 - 4752 MHz	2.5 Max.
Return Loss (dB)	3168 - 4752 MHz	9.5 Min.
Attenuation (dB)	2400 - 2500 MHz	30 Min.
	5150 MHz	12 Min.
	5950 MHz	25 Min.

Maximum Ratings

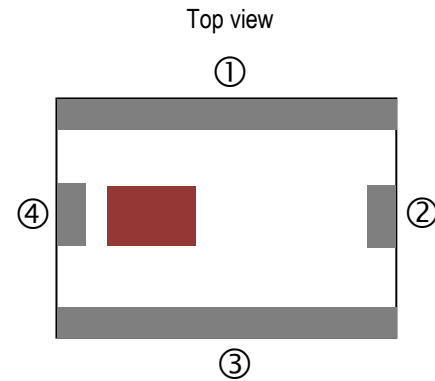
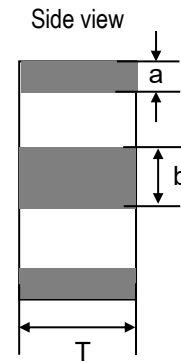
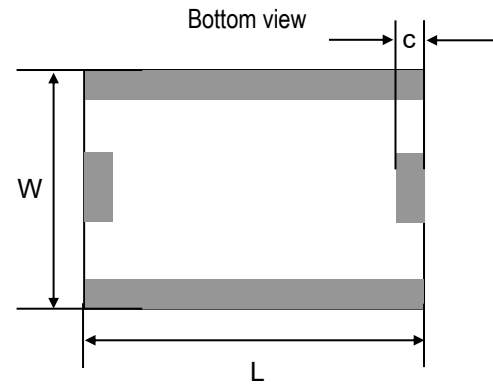
Power Capacity (W)	3 Max. (CW)
Operating Temperature (°C)	-40 to +105
Recommended Storage Conditions post-installation (°C)	-40 to +105
Recommended Storage Conditions and Period for Unused T&R Product	45% - 75% RH
	+5 to +35 °C
	18 Months Max.

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 3960BP39A1584001CE1.

Mechanical Dimensions

	Inches			Millimeters		
L	0.098	±	0.008	2.50	±	0.20
W	0.079	±	0.008	2.00	±	0.20
T	0.035	±	0.004	0.90	±	0.10
a	0.012	±	0.008	0.30	±	0.20
b	0.024	±	0.008	0.60	±	0.20
c	0.012	±	0.008	0.30	±	0.20



Terminal Configuration³

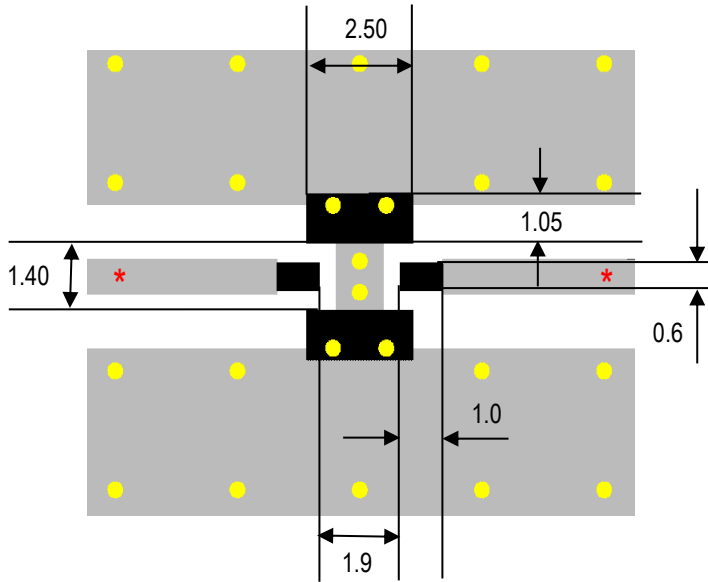
Pin Number	Function
1	GND
2	INPUT/OUTPUT
3	GND
4	INPUT/OUTPUT

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.



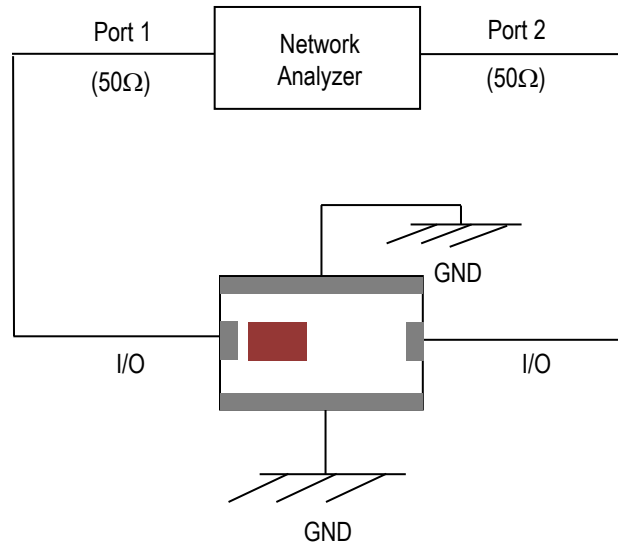
Units in mm

-  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.

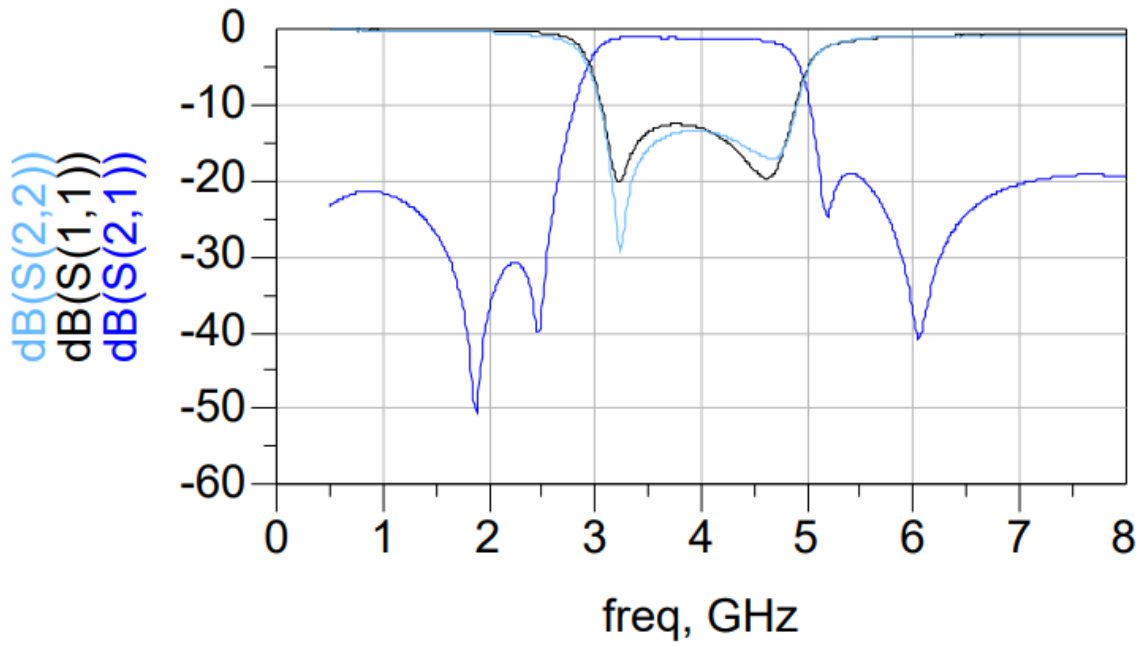
If you'd like the CAD PCB layout or have any questions, contact our application engineers at <https://www.johansontechnology.com/ask-a-question>

Measuring Diagram



RF Measurement (T = 25°C)

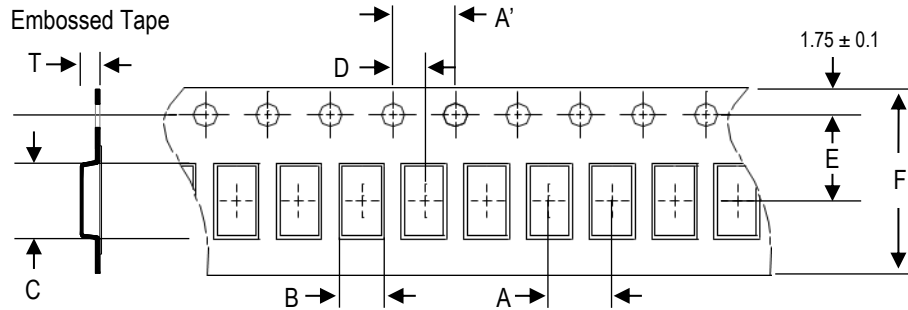
Insertion Loss, Return Loss and Attenuation



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

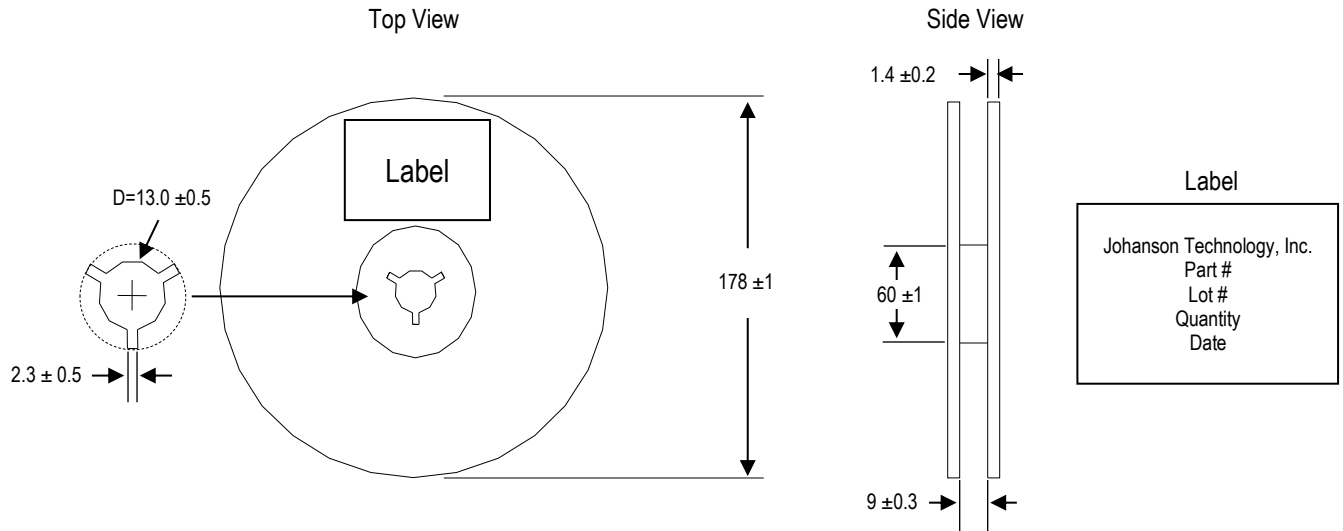
Tape and Reel Specification (Units in mm)

Tape Dimensions

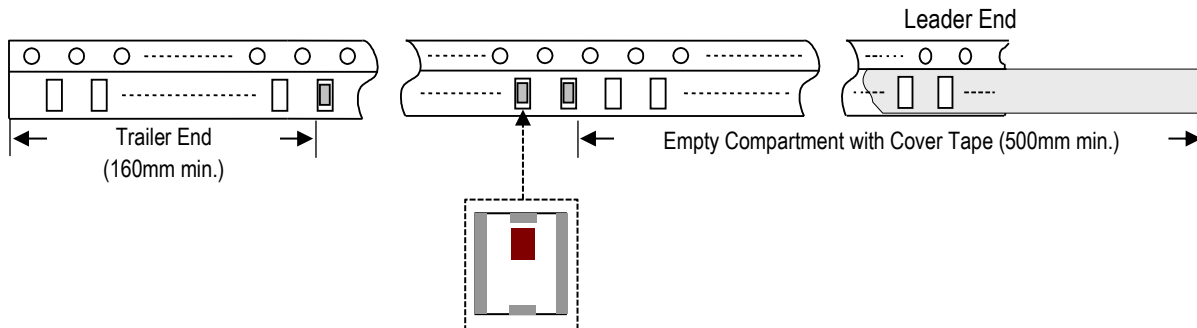


A	A'	B	C	D	E	F	T	Quantity/reel	Tape material
4.0 ±0.1	4.0 ±0.1	2.35 ±0.1	2.8 ±0.1	2.0 ±0.1	3.5 ±0.1	8.0 ±0.1	1.15 ±0.1	3,000 pcs.	Plastic (Embossed)

Reel Dimensions



Leader and Trailer Dimensions



Orderable Part Number

Packaging Style	Part Number	Termination
Bulk (loose pcs.)	3960BP39A1584001B	Nickel Tin
T & R (7" Reel Embossed Tape)	3960BP39A1584001E (Qty: 3,000 pcs./reel)	
Evaluation Board with 2 SMA Connectors	3960BP39A1584001CE1	

Important Links

[3960BP39A1584001E 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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