

High Frequency Ceramic Solutions

2.4GHz High Rejection BPF with LGA-type terminations for reduced effective footprint, EIA 0805

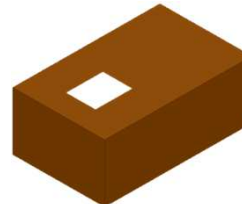
P/N 2450BP15Q0100

Detail Specification: 9/22/2020

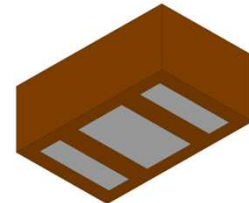
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General Specifications

Part Number	2450BP15Q0100
Frequency (MHz)	2400 - 2500
Insertion loss (dB)	1.8 max. @25 °C 2.0 max. @-40 to +85 °C 2.1 max. @-40 to +105 °C
Return Loss (dB)	10 min.
Power Capacity (W)	3 max. (CW)
Operating Temperature	-40 to +105°C



(Top)



(Bottom)

Attenuation (dB)		Reel Quantity	4,000 pcs
824 - 960 MHz	35 min.	Recommended Solder Paste	SAC 305
1545 - 1605 MHz	30 min.	Recommended Storage Conditions for unused T&R product	+5 to +35°C
1710 - 1990 MHz	35 min.		Humidity 45 - 75% RH
2170 MHz	30 min.		18 months max.
4000 MHz	20 min.		
4800 - 5000 MHz	30 min.		
7200 - 7500 MHz	25 min.	*12 months in vacuum sealed bag and 1 week after opened. Please keep unused parts in vacuum sealed bags	

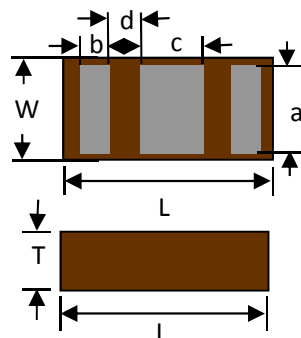
For more info like handling and soldering profile, go to: <https://www.johansontechnology.com/index.php/silverleads-profile>

Part Number Explanation

P/N Suffix	Packaging Style	Bulk	Suffix = S	e.g. 2450BP15Q0100S
		T & R	Suffix = E	e.g. 2450BP15Q0100E
	Termination Style	Ag/Pt	Suffix = None	e.g. 2450BP15Q0100(S or E)
	Evaluation Board	50Ω SMA	Suffix = EBSMA	e.g. 2450BP15Q0100-EBSMA

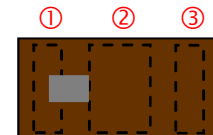
Mechanical Dimensions

	In	mm
L	0.079 ± 0.006	2.00 ± 0.15
W	0.049 ± 0.004	1.25 ± 0.10
T	0.028 max.	0.70 max.
a	0.037 ± 0.004	0.95 ± 0.10
b	0.011 ± 0.004	0.275 ± 0.10
c	0.024 ± 0.004	0.60 ± 0.10
d	0.010 ± 0.002	0.25 ± 0.05



Terminal Configuration

No.	Function
1	IN/OUT
2	GND
3	IN/OUT



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<https://www.johansontechnology.com>

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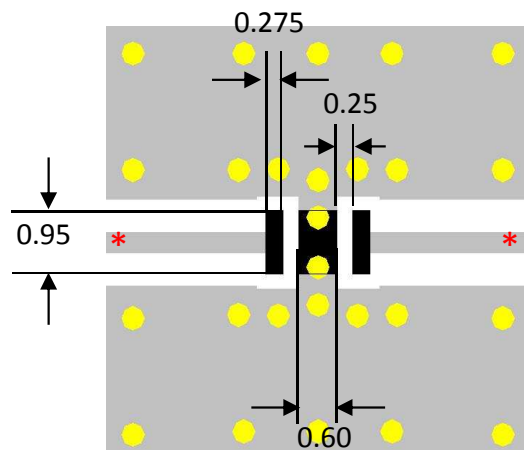
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Mounting Pad Dimensions

Units in mm



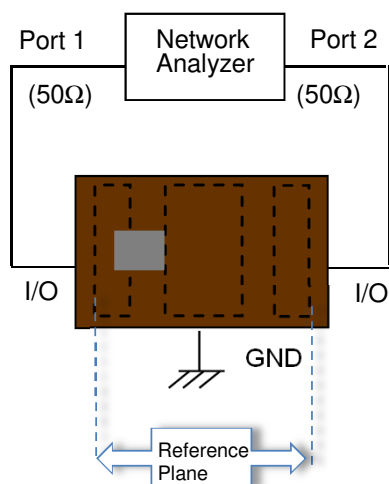
■ Solder Resist

■ Land

● GND Via (ϕ 0.35)

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

Measurement Schematic



Port 1: Filter IN/OUT
Port 2: Filter IN/OUT

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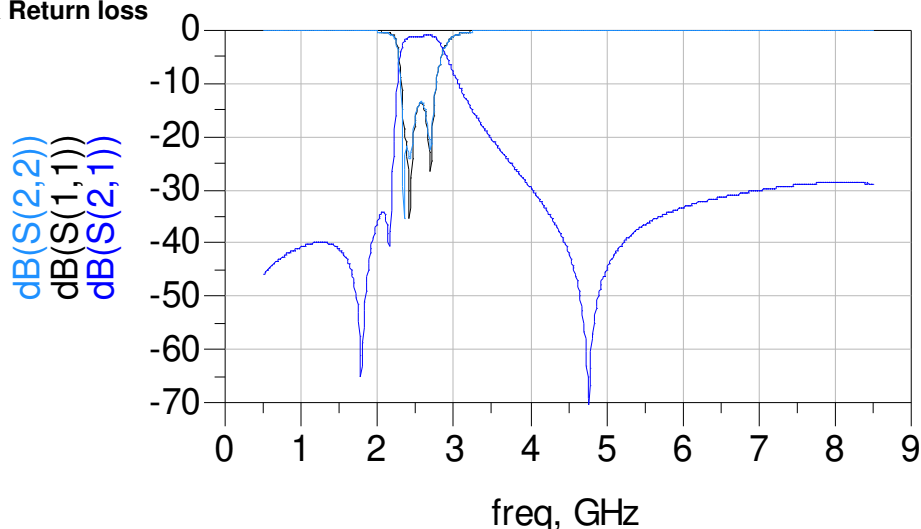
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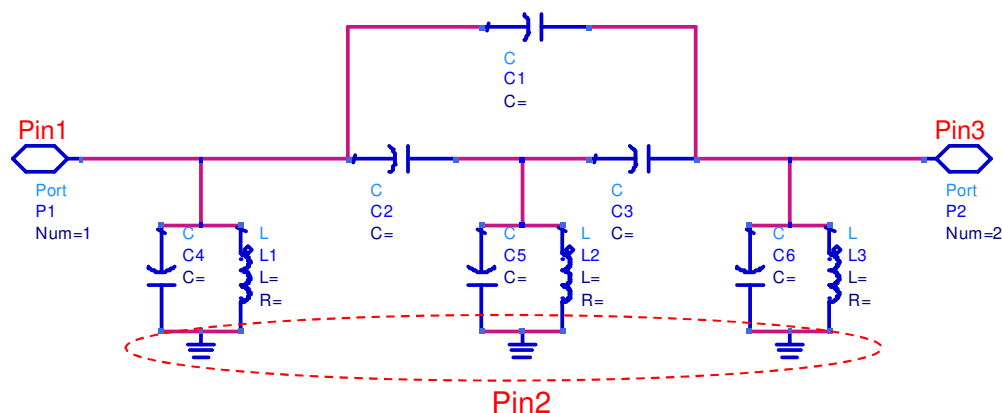
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Typical Electrical Characteristics (T=25°C)

Insertion Loss & Return loss



Representative Schematic



Note: If the designer needs to block DC signals a 10-12pF low loss cap is recommended. The following p/n's are recommended:

250R05L100JV4T	500R07S100JV4T
250R05L110JV4T	500R07S110JV4T
250R05L120JV4T	500R07S120JV4T

<https://www.johansontechnology.com/high-q-multi-layer-capacitors>

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Application Notes, Layout Files, and more

<https://www.johansontechnology.com/band-pass-filters>

Packaging information

<https://www.johansontechnology.com/tape-reel-packaging>

Soldering Information

<https://www.johansontechnology.com/ipcsoldering-profile>

MSL Info

<https://www.johansontechnology.com/msl-rating>

Recommended Storage Condition and Max Shelf Life

<https://www.johansontechnology.com/recommended-storage-conditions>

RoHS Compliance

<https://www.johansontechnology.com/rohs-compliance>

Antenna layout and tuning techniques

<https://www.johansontechnology.com/tuning>

Antenna layout review, tuning, and characterization services

<https://www.johansontechnology.com/ipc-antenna-services>

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