

# "High Frequency Ceramic Solutions"

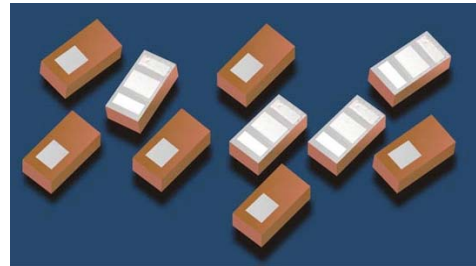
## 2.4GHz High Rejection BPF with LGA-type terminations for P/N 2450BP15Q0100 reduced effective footprint

Detail Specification: 6/19/2013

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General Specifications	
Part Number	2450BP15Q0100
Frequency (MHz)	2400 ~ 2500
Attenuation (dB)	35 min. @ 824 ~ 960MHz
	30 min. @ 1545 ~ 1605MHz
	35 min. @ 1710 ~ 1990MHz
	30 min. @ 2170MHz
	30 min. @ 4800 ~ 5000MHz
	25 min. @ 7200 ~ 7500MHz
Insertion Loss (dB)	1.8 max. @ 25 °C 2.0 max. @ -40~85 °C
Return Loss (dB)	10 min
Power Capacity	2 Watts max. (CW)

Operating Temperature	-40 to +85°C
Recommended Storage Conditions	+5 to +35°C, Humidity 45~75%RH, 18 months, 1 week max after opened*
Reel Quantity	4,000
Solder Paste	SAC 305 type is recommended.

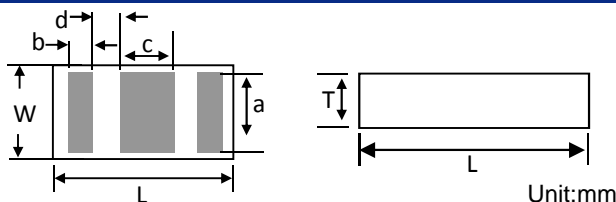


### Part Number Explanation

P/N Suffix	Packing Style	Bulk	Suffix = S	eg. 2450BP15Q0100S
		T & R	Suffix = E	eg. 2450BP15Q0100E
	Termination style	100% Tin	Suffix = None	eg. 2450BP15Q0100 (E or S)
	50 ohm Evaluation Board	2450BP15Q0100-EBSMA (with SMA Connectors)		

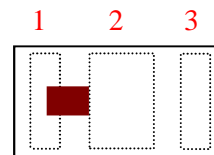
### Mechanical Dimensions

	In	mm
L	0.079 ± 0.006	2.0 ± 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	0.6 ± 0.10
d	0.010 ± 0.002	0.25 ± 0.05



### Terminal Configuration

No.	Function
1	I/O
2	GND
3	I/O



Pins 1 and 3 are interchangeable (symmetrical component)

Pins 1 and 3 have a DC path to Pin 2

If DC block required, a 10pF - 15pF low loss cap should be mounted at the I/O's

\*For more info go to [www.johansonstechnology.com/silverleads](http://www.johansonstechnology.com/silverleads)



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Ver 1.2

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**P/N 2450BP15Q0100**




Detail Specification: 6/19/2013

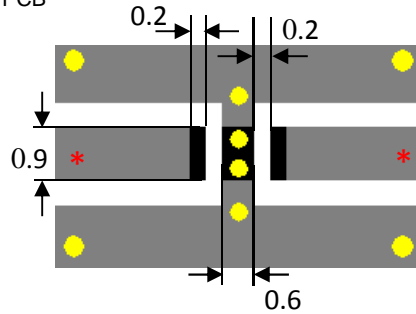
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## Mounting Considerations

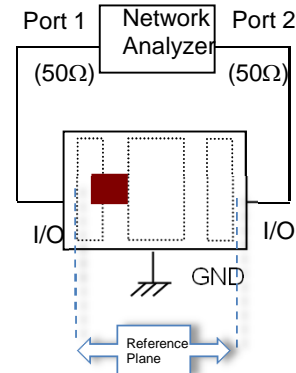
\*Line width should be designed to match 50  $\Omega$  characteristic impedance, depending on PCB material and thickness.

### LEGEND

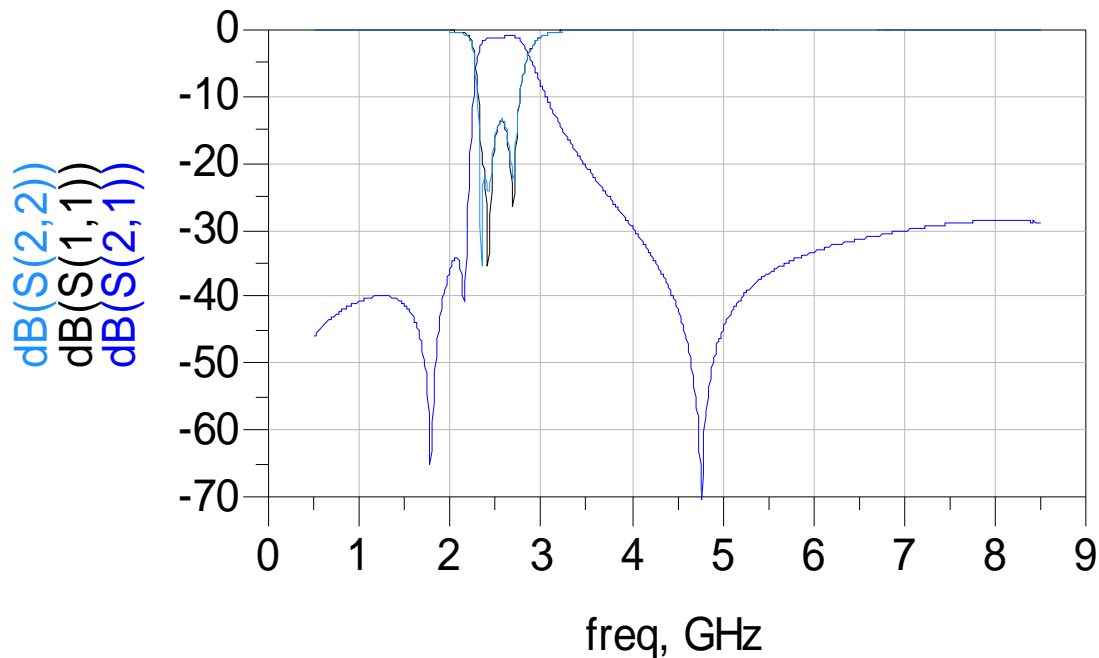
-  Solder
-  Land
-  Through-hole ( $\phi 0.3$ )



## Measuring Diagram



## Typical Electrical Performance (T=25°C)



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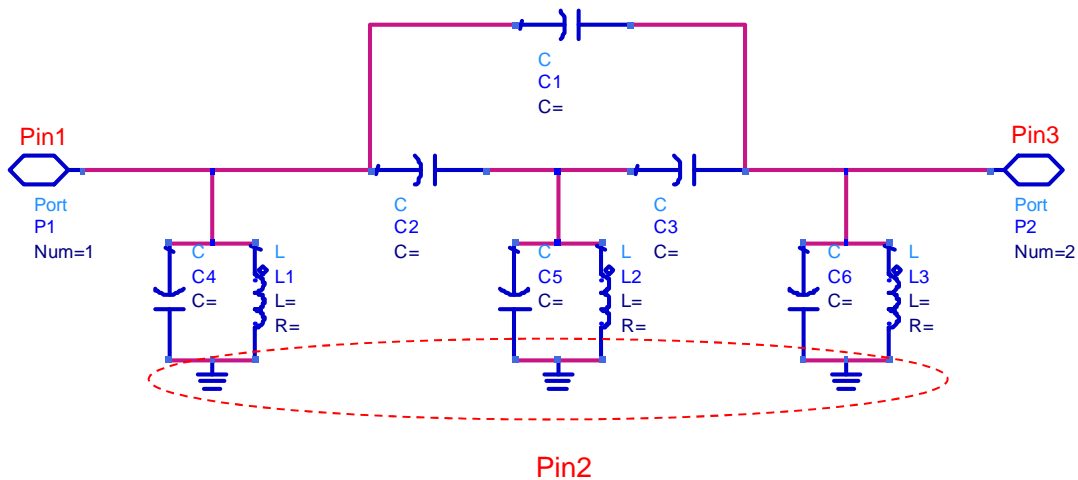
## Tape & Reel Specifications

<http://www.johansontechnology.com/ipcpackaging.html>

## Soldering Profile

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

## Representative Schematic for 2450BP15Q100



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

<http://www.johansontechnology.com/rf-capacitors/high-q-multi-layer-capacitors-rohs.html>

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