

## 3.81GHz Surface Mount Bandpass Filter B038MC9S

### DESCRIPTION

DLI's surface mount catalog bandpass filters utilize DLI's low loss temperature stable materials which offer small size and minimal performance variation over temperature. The catalog BPF's are offered in a variety of frequency bands, which offers a drop in solution with highly repeatable performance.

### FEATURES

- Small Size
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55°C to +125°C
- Characteristic Impedance: 50Ω

### Packaging and Ordering information:

To request Tape and Reel packaging, please order part number B038MC9S-T



### SPECIFICATIONS\*

Parameter	Frequency Range (GHz)	Min	Typ.	Max
Insertion Loss (dB)	3.62 - 4.00		3.0	4.0
Return Loss (dB)		10	15	12
Low Side Rejection (dB)	DC - 3.25	40	45	-
High Side Rejection (dB)	4.45 - 12.00	40	45	-
CW Input Power** (W)				10
$\theta_{JC} \left( \frac{^{\circ}\text{C}}{\text{W}} \right)$			7.5	
Size (L x W x H)	0.500 x 0.250 x 0.098 in 12.70 x 6.35 x 2.49 mm			

\*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary  $\pm 0.5\text{dB}$  over temperature.

\*\*Power rating assumes the component will be mounted to a PCB with good thermally conducting ground vias as outlined in the recommended PCB layout that are connected to an adequate heat sink. Max power is based on 125°C base temperature.

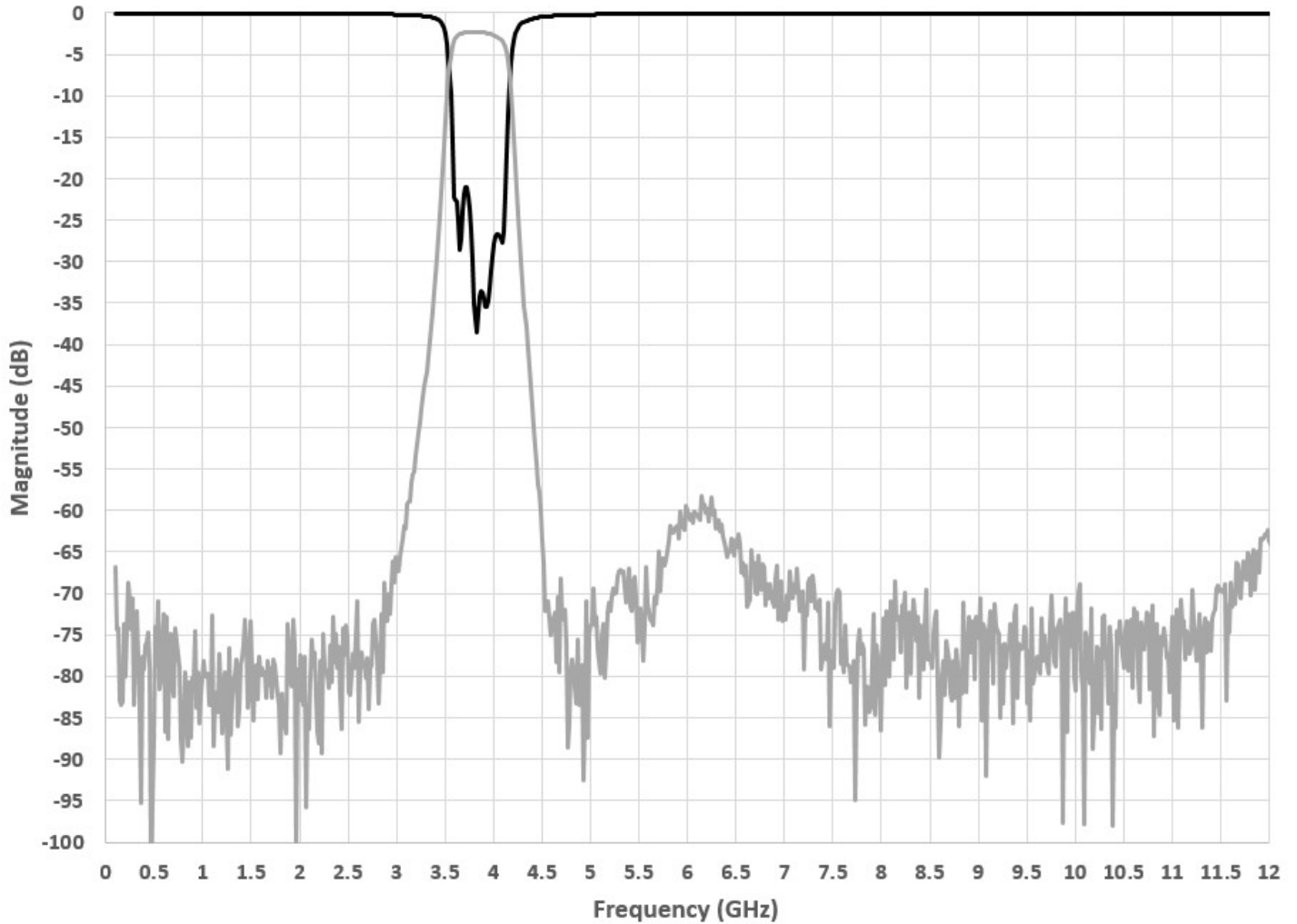
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2777 Route 20 East, Cazenovia, NY 13035 | Ph.: (315)655-8710

To Order Contact [KCCSales@knowles.com](mailto:KCCSales@knowles.com) | For Technical Inquiries Contact [DLIengineering@knowles.com](mailto:DLIengineering@knowles.com)

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**Typical Measured Performance\***



\*Typical de-embedded measured performance mounted on a connectorized test DEB (0.010in RO4350B with 50Ω CPW ground traces), tested at room temperature

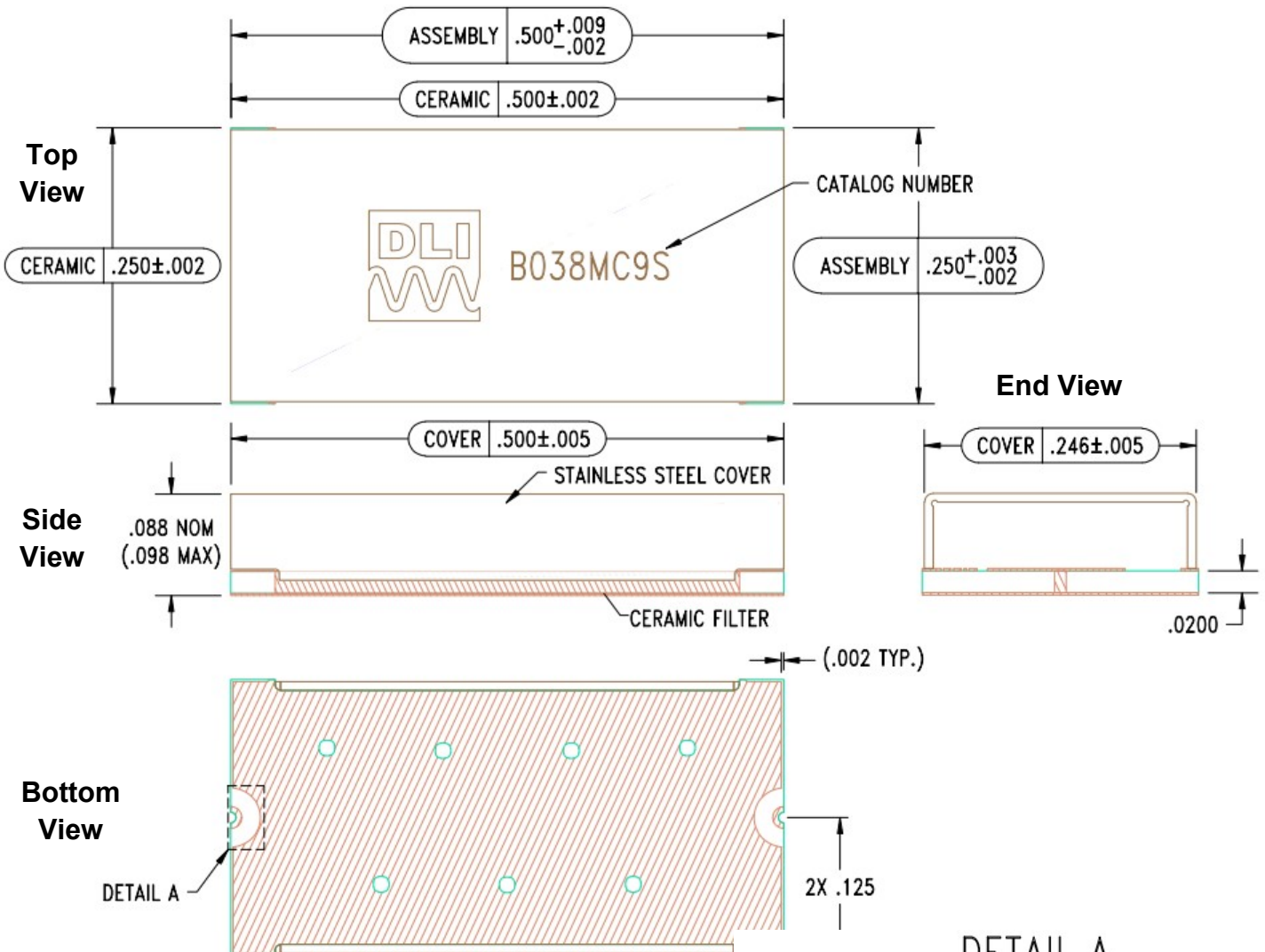
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**Physical Dimensions**

Units = inches



**Notes :**

1. Termination Finish:

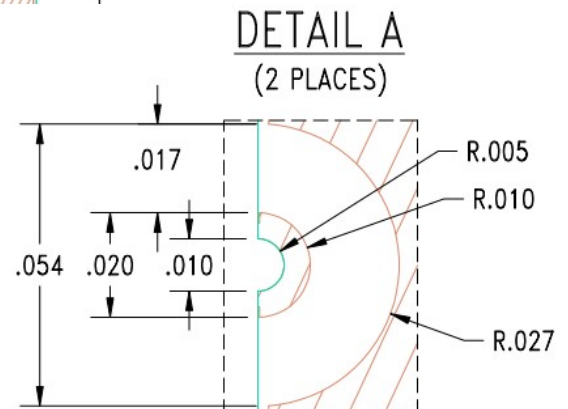
ENIG: 3 - 6  $\mu$ inch Au over 50  $\mu$ inch Ni

2. Maximum Assembly Process Temperature: 250°C

**Tolerances:**

For values with 3 decimal places  $\pm 0.001$

For values with 4 decimal places  $\pm 0.0005$

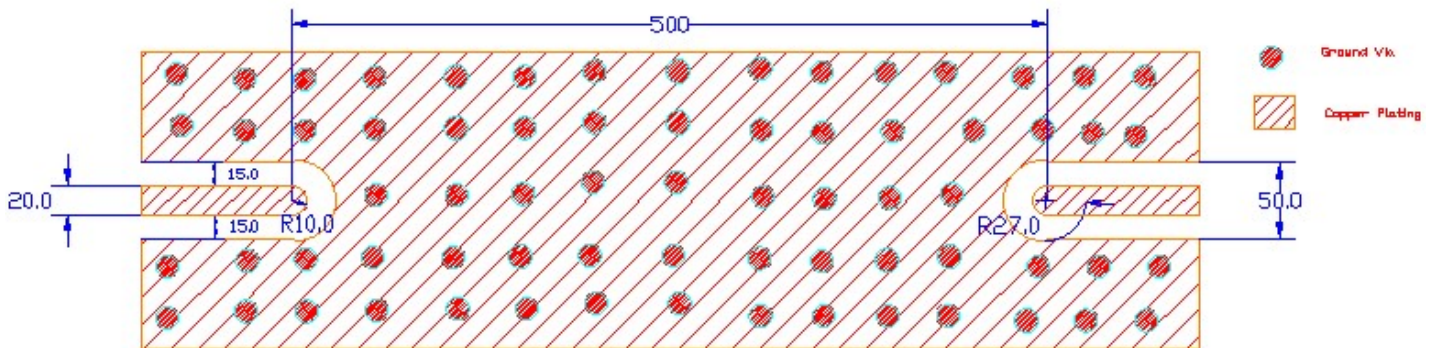


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**Recommended PCB Layout (unit = mils )**



**Note:**

- 50Ω trace dimensions are application specific.
- 50Ω trace dimensions are designed for 10mil thick R04350B Rogers Board .
- Ensure adequate grounding beneath the part.

For further details and best practices, reference the **Microwave Products Guide**, available at: <https://www.knowlescapacitors.com/Support/Catalogs>