16.5 GHz Surface Mount Bandpass Filter

B165LA1S

DESCRIPTION

One of DLI’s surface mountable catalog bandpass filters. This filter utilizes 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
- Fully Shielded Component
- Solder Surface Mount Package
- Moisture Sensitivity Level: MSL1
- Frequency Stable over Temperature
- Operating & Storage Temp: -55˚C to +125˚C
- Characteristic Impedance: 50Ω

SPECIFICATIONS*

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Frequency Range (GHz)</th>
<th>Min</th>
<th>Typ.</th>
<th>Max</th>
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</thead>
<tbody>
<tr>
<td>Insertion Loss (dB)</td>
<td>16.0 - 17.0</td>
<td>-</td>
<td>2.75</td>
<td>3.0</td>
</tr>
<tr>
<td>Return Loss (dB)</td>
<td></td>
<td>12</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Low Side Rejection (dB)</td>
<td>DC - 14.5</td>
<td>40</td>
<td>45</td>
<td>-</td>
</tr>
<tr>
<td>High Side Rejection (dB)</td>
<td>18.0 – 25.0</td>
<td>40</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Input Power (W)</td>
<td></td>
<td></td>
<td></td>
<td>TBD</td>
</tr>
<tr>
<td>Size (L x W x H)</td>
<td>0.400 x 0.200 x 0.098 in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10.16 x 5.0 x 2.5 mm</td>
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</table>

*Electrical specifications based on typical probed performance at room temperature. Insertion loss shall vary up to ±0.5dB over

Typical Measured Performance

[Graph showing the frequency response of the filter]
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Physical Dimensions

- 50Ω trace dimensions are application specific.
- Ensure adequate grounding beneath the part.

Recommended PCB Layout