**DESCRIPTION**

- 1237.5 MHz SAW filter with 24 MHz bandwidth.
- 3 x 3 mm LCC Package, 6 pads.
- RoHS compliant.

**TYPICAL PERFORMANCE**

![Graph with labels](image)

*Center = 1237.5 MHz, 30 MHz/div (187.5 kHz incr)*

**S11 (1087.5-1387.5 MHz)**

**S22 (1087.5-1387.5 MHz)**
1237.5 MHz SAW Filter
24 MHz Bandwidth
Part Number: SF1238BA02623S

SPECIFICATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency (Fc) ¹</td>
<td>-</td>
<td>1237.5</td>
<td>-</td>
<td>MHz</td>
</tr>
<tr>
<td>Insertion Loss (1225.5 to 1249.5 MHz)</td>
<td>-</td>
<td>2.4</td>
<td>4</td>
<td>dB</td>
</tr>
<tr>
<td>Amplitude Ripple (1225.5 to 1249.5 MHz)</td>
<td>-</td>
<td>0.6</td>
<td>1.7</td>
<td>dB p-p</td>
</tr>
<tr>
<td>Group Delay Ripple (1225.5 to 1249.5 MHz)</td>
<td>-</td>
<td>6</td>
<td>20</td>
<td>ns p-p</td>
</tr>
<tr>
<td>Input Return Loss (1225.5 to 1249.5 MHz)</td>
<td>9</td>
<td>13</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Output Return Loss (1225.5 to 1249.5 MHz)</td>
<td>9</td>
<td>13</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0 dB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 to 1150 MHz</td>
<td>40</td>
<td>45</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>1350 to 2500 MHz</td>
<td>40</td>
<td>45</td>
<td>-</td>
<td>dB</td>
</tr>
<tr>
<td>Source Impedance</td>
<td></td>
<td></td>
<td>50</td>
<td>Ω</td>
</tr>
<tr>
<td>Load Impedance</td>
<td></td>
<td></td>
<td>50</td>
<td>Ω</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td></td>
<td></td>
<td>25</td>
<td>°C</td>
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</table>

MAXIMUM RATINGS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
<th>Max</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature Range</td>
<td>-40</td>
<td>85</td>
<td>°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-30</td>
<td>80</td>
<td>°C</td>
</tr>
<tr>
<td>Input Power Level</td>
<td>-</td>
<td>+10</td>
<td>dBm</td>
</tr>
<tr>
<td>DC Voltage</td>
<td>-</td>
<td>3</td>
<td>V</td>
</tr>
</tbody>
</table>

MATCHING CIRCUIT

[Diagram of matching circuit]

Notes:
- External matching components are not required.
- Device is intended to operate in a 50 Ω single ended system.
1237.5 MHz SAW Filter
24 MHz Bandwidth
Part Number: SF1238BA02623S

PACKAGE OUTLINE

SUGGESTED FOOTPRINT

Units: mm
Tolerances are typically ±0.15 mm except where indicated.

Pad Configuration:
Input: 2
Output: 5
Ground: 1,3,4,6

Package Material:
Body: Al₂O₃ ceramic
Lid: Kovar, Ni plated
Terminations: Au plating 1 μm min, over a 1.3-8.9 μm Ni plating

MARKING

All specifications are believed to be accurate and reliable. However, Spectrum Microwave reserves the right to make changes without notice.
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