SAW Filter
1060 MHz SAW Filter, 700 kHz Bandwidth

- 3 x 3 mm LCC, 6 Pads
- RoHS Compliant

These filters are manufactured on quartz, which provides optimal temperature performance and are available from 80 - 1600 MHz. This TCRF is designed for narrowband IF filtering such as in satellite transponders, directional finders and anti-jam modems. Other packaging styles are available for more rugged environments and applications. Standard part numbers as well as custom solutions are available. Please contact sales for more information.

**TYPICAL PERFORMANCE**

Center = 1060 MHz, 5 MHz/div (31.3 kHz incr)
**SPECIFICATION**

**At +25 °C Ambient**

<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, ( F_c )</td>
<td>1059.7</td>
<td>1060</td>
<td>1060.3</td>
<td>MHz</td>
</tr>
<tr>
<td>Insertion Loss at Response Peak</td>
<td>-</td>
<td>5</td>
<td>6.5</td>
<td>dB</td>
</tr>
<tr>
<td>1 dB Bandwidth (^1)</td>
<td>700</td>
<td>750</td>
<td></td>
<td>kHz</td>
</tr>
<tr>
<td>3 dB Bandwidth (^1)</td>
<td>-</td>
<td>1000</td>
<td></td>
<td>kHz</td>
</tr>
<tr>
<td>20 dB Bandwidth (^1)</td>
<td>-</td>
<td>2.8</td>
<td></td>
<td>MHz</td>
</tr>
<tr>
<td>Absolute Delay at ( F_c )</td>
<td>-</td>
<td>20</td>
<td></td>
<td>ns</td>
</tr>
<tr>
<td>Ultimate Rejection, 500 MHz to 1040 MHz (^1)</td>
<td>20</td>
<td>22</td>
<td></td>
<td>dB</td>
</tr>
<tr>
<td>Ultimate Rejection, 1080 MHz to 1500 MHz (^1)</td>
<td>20</td>
<td>21</td>
<td></td>
<td>dB</td>
</tr>
</tbody>
</table>

**At Other Temperatures**

| Shift of Response Over Operating Temperature Range \(^2\) | -105 | -    | +65    | kHz   |

Notes:
1. Levels in dB are taken relative to the response peak.
2. The center frequency varies quadratically with temperature, becoming a maximum at -14 °C

**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 Range</td>
<td>-40</td>
<td>+50</td>
<td>°C</td>
</tr>
<tr>
<td>Input Power Level</td>
<td>-</td>
<td>+10</td>
<td>dBm</td>
</tr>
</tbody>
</table>

**MATCHING CIRCUIT**

![Matching Circuit Diagram](image)

Notes:
- Recommend 2% or better tolerance matching components. Typical inductor Q=40.
- Optimum values may change depending on board layout. Values shown are intended as a guide only.
PACKAGE OUTLINE

Date Code
(YY=year, WW=week)

Pad 1 indicator

Units:

Tolerances are ± 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

SUGGESTED FOOTPRINT

Units:  mm

Tolerances are ± 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