SAW Resonator 462.5375MHz
Part No: MP01569

Model: TC0283A
REV. NO.: 1

A. FEATURES:
1. 1-Port Resonator.

B. MAXIMUM RATING:
1. Input Power Level: 0 dBm
2. DC voltage: 12 V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

C. ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Units</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency Fr</td>
<td>MHz</td>
<td>462.4375</td>
<td>462.5375</td>
<td>462.6375</td>
</tr>
<tr>
<td>Insertion Loss IL</td>
<td>dB</td>
<td>-</td>
<td>1.61</td>
<td>2.5</td>
</tr>
<tr>
<td>Equivalent Elements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motional capacitance C1</td>
<td>fF</td>
<td>-</td>
<td>1.21</td>
<td>-</td>
</tr>
<tr>
<td>Motional inductance L1</td>
<td>µH</td>
<td>-</td>
<td>97.72</td>
<td>-</td>
</tr>
<tr>
<td>Motional resistance R1</td>
<td>Ohm</td>
<td>-</td>
<td>24.2</td>
<td>-</td>
</tr>
<tr>
<td>Parallel capacitance Co</td>
<td>pF</td>
<td>-</td>
<td>2.45</td>
<td>-</td>
</tr>
<tr>
<td>Temp. coeff.</td>
<td>ppm/c*2</td>
<td>-</td>
<td>0.032</td>
<td>-</td>
</tr>
<tr>
<td>Turnover To</td>
<td>deg.C</td>
<td>10</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Package size</td>
<td></td>
<td>SMD3.8X3.8X1.4 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Temperature dependence of fc: \( fc(T_A) = fc(T_O)(1 + TCf(T_A - T_O)^2) \)

D. OUTLINE DRAWING:
E. EQUIVALENT CIRCUIT:
One-Port Resonator:

Source Impedance

\[ \begin{align*}
B & \quad C_0 \\
R_1 & \quad C_1 & \quad L_1
\end{align*} \]

Load Impedance

50\(\Omega\)

50\(\Omega\)

F. FREQUENCY CHARACTERISTICS:

[Graph showing frequency response with data points and labels indicating center frequency, bandwidth, and other relevant information.]
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G. TEST CIRCUIT:

Network analyzer

From 50Ω
Network
Analyzer

SAW Resonator

E
50Ω
B
A, C, D, F

To 50Ω
Network
Analyzer

H. PCB FOOTPRINT:
I. PACKING:

1. REEL DIMENSION

2. TAPE DIMENSION