SAW Resonator 915.0MHz
Part No: MA06291

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:
Reference Temperature $T_A=25°C$

<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 $F_c$</td>
<td>MHz</td>
<td>914.850</td>
<td>915</td>
<td>915.150</td>
</tr>
<tr>
<td>Insertion Loss $IL$</td>
<td>dB</td>
<td>-</td>
<td>1.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Unload quality factor $Q_U$</td>
<td></td>
<td>5000</td>
<td>6200</td>
<td>-</td>
</tr>
<tr>
<td>Ageing of $f_c$</td>
<td>ppm/yr</td>
<td>-</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Motional capacitance $C_1$</td>
<td>fF</td>
<td>-</td>
<td>1.39</td>
<td>-</td>
</tr>
<tr>
<td>Motional inductance $L_1$</td>
<td>µH</td>
<td>-</td>
<td>21.8</td>
<td>-</td>
</tr>
<tr>
<td>Motional resistance $R_1$</td>
<td>Ohm</td>
<td>-</td>
<td>20.3</td>
<td>-</td>
</tr>
<tr>
<td>Parallel capacitance $C_o$</td>
<td>pF</td>
<td>-</td>
<td>2.6</td>
<td>-</td>
</tr>
<tr>
<td>Frequency Temperature coefficient ($TC_f$)</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>25</td>
<td>40</td>
</tr>
<tr>
<td>Package size</td>
<td></td>
<td>SMD 5X5X1.4mm</td>
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</tr>
</tbody>
</table>

Temperature dependence of $f_c$: $f_c(T_A)=f_c(T_O)(1+TC_f(T_A-T_O)^2)$
SAW Resonator 915.0MHz  
Model: TC0234A  
Part No: MA06291  

REV. NO.: 1

D. OUTLINE DRAWING:

E. EQUIVALENT CIRCUIT:
One-Port Resonator:

Source Impedance  

50 Ω  #2  C0  #6  Load Impedance

50 Ω  

R1  C1  L1
F. FREQUENCY CHARACTERISTICS:

![Resonator 915MHz Frequency Characteristics](image)

G. TEST CIRCUIT:

Network analyzer

![Test Circuit Diagram](image)
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H. PACKING:
1. REEL DIMENSION

2. TAPE DIMENSION