SAW Resonator 776.795MHz
Part No: MA07194

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 ( F_r )</td>
<td>MHz</td>
<td>776.670</td>
<td>776.795</td>
<td>776.920</td>
</tr>
<tr>
<td>Insertion Loss ( IL )</td>
<td>dB</td>
<td>-</td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Equivalent Elements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motional capacitance ( C_1 )</td>
<td>fF</td>
<td>-</td>
<td>1.66</td>
<td>-</td>
</tr>
<tr>
<td>Motional inductance ( L_1 )</td>
<td>µH</td>
<td>-</td>
<td>25.31</td>
<td>-</td>
</tr>
<tr>
<td>Motional resistance ( R_1 )</td>
<td>Ohm</td>
<td>-</td>
<td>14.67</td>
<td>-</td>
</tr>
<tr>
<td>Parallel capacitance ( C_0 )</td>
<td>pF</td>
<td>-</td>
<td>2.80</td>
<td>-</td>
</tr>
<tr>
<td>Temp.coeff. ( \text{ppm/c}^2 )</td>
<td></td>
<td>-</td>
<td>0.032</td>
<td>-</td>
</tr>
<tr>
<td>Turnover To ( \text{deg.C} )</td>
<td></td>
<td>20</td>
<td>-</td>
<td>50</td>
</tr>
<tr>
<td>Package size</td>
<td></td>
<td>SMD 3.8X3.8X1.4mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SAW Resonator 776.795MHz  
Model: TC0188A  
Part No: MA07194  
REV. NO.: 1

D. **OUTLINE DRAWING:**

![Outline Drawing]

E. **EQUIVALENT CIRCUIT:**

One-Port Resonator:

![Equivalent Circuit Diagram]

Source Impedance: 50Ω  
Load Impedance: 50Ω  
R1  C1  L1
F. FREQUENCY CHARACTERISTICS:

![Resonator Frequency Characteristics Graph]

G. TEST CIRCUIT:

```
From 50Ω Network Analyzer

SAW Resonator

To 50Ω Network Analyzer
```

50Ω

A, C, D, F
H. PACKING:

1. REEL DIMENSION

2. TAPE DIMENSION

Section A-A