SAW Filter 739.0MHz
Part No: MP07098
Rev No: 1

A. MAXIMUM RATING:

1. Operating temperature range: -30°C to 60°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10 dBm
4. Maximum DC Voltage: 10V

B. CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, Fc</td>
<td>MHz</td>
<td>-</td>
<td>739</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss, IL</td>
<td>dB</td>
<td>-</td>
<td>17.0</td>
<td>18.5</td>
</tr>
<tr>
<td>-1dB bandwidth</td>
<td>MHz</td>
<td>78</td>
<td>85</td>
<td>-</td>
</tr>
<tr>
<td>Passband Ripple Fc ± 39MHz</td>
<td>dB</td>
<td>-</td>
<td>0.75</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Attenuation:(Reference level from Min IL)

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>dB</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10MHz ~ 604MHz</td>
<td>40</td>
<td>50</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>604MHz ~ 676MHz</td>
<td>40</td>
<td>48</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>676MHz ~ 682MHz</td>
<td>20</td>
<td>44</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>804MHz ~ 814MHz</td>
<td>15</td>
<td>42</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>814MHz ~ 879MHz</td>
<td>33</td>
<td>40</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>879MHz ~ 1120MHz</td>
<td>40</td>
<td>50</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Temperature Coefficient ppm/°C

Source Impedance Ohm

Load Impedance Ohm

Electrostatic Sensitive Device
C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 600MHz)

![Wide band Response graph]

Fig 1. Horizontal: 60MHz / Div, Vertical: 10dB / Div

2. Pass band Response and Group Time Delay response:

![Pass band Response and Group Time Delay graph]

Fig. 2. Horizontal: 17MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div
3. Smith Chart

![Smith Chart Diagram]

D. MATCHING CIRCUIT:

![Matching Circuit Diagram]

L1 = 3nH, C1 = 7pF, L2 = 3nH, C2 = 5.6pF
E. OUTLINE DRAWING:

3: Input
2: Input ground
7: Output
6: Output ground
1, 4, 5, 8: Ground
Unit: mm

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension: (Please refer to FR-75D10 for packing quantity)

![Diagram of Reel Dimension]

2. Tape dimension:

![Diagram of Tape Dimension]

- **SECTION A-A**
- **Direction of feed**
H. RECOMMENDED REFLOW PROFILE:

![Reflow Profile Graph]

- **Time (Sec)**
  - 0, 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360
- **Temp (Deg C)**
  - 20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360