SAW Filter 140MHz  
Part No: MP02644

A. MAXIMUM RATING:

1. Input Power Level: 10dBm
2. Operating Temperature: -20°C to +80°C
3. Storage Temperature: -40°C to +85°C

B. CHARACTERISTICS:

Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency Fc MHz</td>
<td>140.0</td>
<td>-</td>
</tr>
<tr>
<td>Minimum Insertion loss IL dB</td>
<td>11.3, 13.0</td>
<td>-</td>
</tr>
<tr>
<td>1dB BW MHz</td>
<td>30.0, 33.0</td>
<td>-</td>
</tr>
<tr>
<td>3dB BW MHz</td>
<td>32.0, 35.0</td>
<td>-</td>
</tr>
<tr>
<td>35dB BW MHz</td>
<td>42.4, 44.0</td>
<td>-</td>
</tr>
<tr>
<td>Passband Ripple (80% of 3dB BW) dB</td>
<td>0.6, 1.2</td>
<td>-</td>
</tr>
<tr>
<td>Phase Linearity (80% of 3dB BW) deg</td>
<td>5.0, 14</td>
<td>-</td>
</tr>
<tr>
<td>Delay Variation (80% of 3dB BW) nsec</td>
<td>50, 120</td>
<td>-</td>
</tr>
<tr>
<td>Absolute Delay usec</td>
<td>0.55</td>
<td>-</td>
</tr>
<tr>
<td>Substrate Material</td>
<td>YZ-LiNbO3</td>
<td>-</td>
</tr>
<tr>
<td>Temp Coefficient ppm/K</td>
<td>-94</td>
<td>-</td>
</tr>
</tbody>
</table>

Matching:
1. The input of the filter will be matched to 50Ω
2. The output of the filter will be matched to 50Ω
C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 200MHz)

![Wide band Response Graph](image1)

2. Pass band Response and Group Delay Variation: (span 40MHz)

![Pass band Response Graph](image2)
3. S11 Smith-Chart: (span 200MHz)

![S11 Smith-Chart](image)

4. S22 Smith-Chart: (span 200MHz)

![S22 Smith-Chart](image)
SAW Filter 140MHz  
Model: TB0746A  
Part No: MP02644  
Rev No: 1

D. OUTLINE DRAWING:

![Outline Drawing Diagram]

E. PCB FOOTPRINT:

![PCB footprint Diagram]

F. MATCHING CIRCUIT:

![Matching Circuit Diagram]

\[ Z_{IN} = Z_{OUT} = 50\Omega, \ L1 = 10nH, \ L2 = 27nH, \ L3 = 68nH \]
G. PACKING:

1. Reel Dimension

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE: