SAW Filter 70.0MHz  
Part No: MP05682  
Model: TB0940A  
Rev No: 2

**A. MAXIMUM RATING:**

1. Operating Temperature: 0°C ~ +70°C  
2. Storage Temperature: -40°C ~ +85°C  
3. Input power: 10dBm

**B. CHARACTERISTICS:**

Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Note</th>
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</thead>
<tbody>
<tr>
<td>Center frequency Fc MHz</td>
<td>69.9</td>
<td>70</td>
<td>70.1</td>
<td>-</td>
</tr>
<tr>
<td>Minimum Insertion loss IL dB</td>
<td>-</td>
<td>19.2</td>
<td>22.0</td>
<td>-</td>
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<tr>
<td>1dB Bandwidth MHz</td>
<td>1.3</td>
<td>1.35</td>
<td>-</td>
<td>-</td>
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<tr>
<td>40dB Bandwidth MHz</td>
<td>-</td>
<td>1.87</td>
<td>1.90</td>
<td>-</td>
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<tr>
<td>45dB Bandwidth MHz</td>
<td>-</td>
<td>1.90</td>
<td>1.93</td>
<td>-</td>
</tr>
<tr>
<td>Passband Ripple (Fc ± 0.5MHz) dB</td>
<td>-</td>
<td>0.5</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>Ultimate Rejection dB</td>
<td>50</td>
<td>54</td>
<td></td>
<td></td>
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<tr>
<td>Temp Coefficient ppm/K</td>
<td>-</td>
<td>-0.032</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

**Matching:**

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

1. S21 Response: (span: 20MHz)

2. Pass-band Response: (span: 2MHz)
3. S11 Smith Chart: (span: 20MHz)

4. S22 Smith Chart (span: 20MHz)
D. MEASUREMENT CIRCUIT:

\[ Z_{\text{IN}} = Z_{\text{OUT}} = 50\Omega \]

\[ L_1 = 150\text{nH}, L_2 = 36\text{nH}, L_3 = 270\text{nH} \]

E. OUTLINE DRAWING:

1: RF input
4: RF output
3, 6: Case Ground
2, 5: Ground
Unit: mm
F. RECOMMENDED REFLOW PROFILE:

![Reflow Profile Diagram]