SAW Filter 165.740MHz  
Part No: MP05756  
Rev No: 1

A. MAXIMUM RATING:

   Electrostatic Sensitive Device

1. Operating temperature range: -30°C to 65°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
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>165.74</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss IL</td>
<td>dB</td>
<td>-</td>
<td>11.1</td>
<td>16.0</td>
</tr>
<tr>
<td>1dB Band Width</td>
<td>MHz</td>
<td>27</td>
<td>30.7</td>
<td></td>
</tr>
<tr>
<td>Amplitude Ripple Fc ± 12.5MHz</td>
<td>dB</td>
<td>-</td>
<td>0.6</td>
<td>1.0</td>
</tr>
<tr>
<td>Attenuation (Reference level from typical Insertion loss)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Range</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 ~ 143MHz</td>
<td>dB</td>
<td>40</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>187MHz ~ 800MHz</td>
<td>dB</td>
<td>40</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>ppm/°C</td>
<td>-</td>
<td>-94</td>
<td>-</td>
</tr>
<tr>
<td>Source Impedance</td>
<td>Ohm</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Load Impedance</td>
<td>Ohm</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
</tbody>
</table>
C. FREQUENCY CHARACTERISTICS:

1. Wide band Response: (span 300MHz)

![Wide band Response graph]

Fig. 1. Horizontal: 30MHz / Div, Vertical: 10dB / Div

2. Pass band Response and Group Time Delay response:

![Pass band Response and Group Time Delay graph]

Fig. 2. Horizontal: 5MHz / Div, Vertical: 1dB / Div, Vertical: 100ns / Div
SAW Filter 165.740MHz  
Part No: MP05756

D. MATCHING CIRCUIT:

![Matching Circuit Diagram]

\[ L_1 = 27\text{nH} \quad C_1 = 36\text{pF} \quad L_2 = 27\text{nH} \quad C_2 = 396\text{pF} \]

E. OUTLINE DRAWING:

![Outline Drawing]

J: RF input  
K: RF input ground  
D: RF output  
E: RF output ground  
A, B, C, F, G, H: Ground  
Unit: mm

F. PCB FOOTPRINT:

![PCB Footprint Diagram]
G. PACKING:

1. Reel Dimension

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE:

![Temperature vs Time Graph]

- Temperature (°C) vs Time (Sec) graph showing the recommended reflow profile for SAW Filter 165.740MHz Model: TB1037A Part No: MP05756 Rev No: 1.