SAW Filter 869.0MHz
Part No: MP05310

Model: TA1404A
Rev No: 6

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 13dBm
2. DC Voltage: 6V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance (single): $Z_S = 50\Omega$
2. Terminating load impedance (single): $Z_L = 50\Omega$

<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 $F_c$ MHz</td>
<td>MHz</td>
<td>-</td>
<td>869</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (868 ~ 870MHz) IL</td>
<td>dB</td>
<td>2.3</td>
<td>3.0max</td>
<td></td>
</tr>
<tr>
<td>Amplitude ripple (868 ~ 870MHz)</td>
<td>dB</td>
<td>0.3</td>
<td>0.6max</td>
<td></td>
</tr>
<tr>
<td>Attenuation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 ~ 300MHz</td>
<td>dB</td>
<td>45</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>300 ~ 845MHz</td>
<td>dB</td>
<td>40</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>845 ~ 853MHz</td>
<td>dB</td>
<td>38</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>879 ~ 883MHz</td>
<td>dB</td>
<td>15</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>883 ~ 915MHz</td>
<td>dB</td>
<td>40</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>915 ~ 945MHz</td>
<td>dB</td>
<td>45</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>945 ~ 1200MHz</td>
<td>dB</td>
<td>45</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>1200 ~ 2000MHz</td>
<td>dB</td>
<td>35</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

Package size mm SMD 3x3

C. TEST CIRCUIT:

Network analyzer

From 50Ω Network Analyzer

SAW Filter

To 50Ω Network Analyzer
D. FREQUENCY CHARACTERISTICS:

1. S21 response: (Span 200MHz)

2. S21 response: (Span 20MHz)
3. S21 response: (100kHz ~ 3GHz)

![S21 Log Mag graph]

4. S11/S22 response:

![S11/S22 response graphs]
E. OUTLINE DRAWING:

#B: Input  
#E: Output  
#A,C,D,F Ground

Unit: mm
F. PACKING:

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

2. Tape Dimension
G. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 245 ~ 260°C peak (min. 10 sec).
4. Time: 2 times.