SAW Filter 897.0MHz  
Model No: TB0840A  
Part No: MP09024  
Rev No: 1

A. MAXIMUM RATING:

1. Operating temperature range: -40°C to 85°C
2. Storage temperature range: -40°C to 85°C
3. Input Power Level: 10dBm
4. Maximum DC Voltage: 10V
5. Moisture Sensitivity Level: Level 1 (MSL1)

B. CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency FC MHz</td>
<td>-</td>
<td>897</td>
<td>-</td>
</tr>
<tr>
<td>Maximum Insertion loss IL dB</td>
<td>-</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>3dB Band Width MHz</td>
<td>24</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>30dB Band Width MHz</td>
<td>29</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Passband Ripple in Fc ± 10MHz dB</td>
<td>-</td>
<td>0.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Group Delay in Fc ±10MHz nsec</td>
<td>-</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>Absolute delay usec</td>
<td>-</td>
<td>0.82</td>
<td>-</td>
</tr>
<tr>
<td>Single Input Impedance Ohm</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Single Output Impedance Ohm</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient ppm/°C</td>
<td>-</td>
<td>-0.036</td>
<td>-</td>
</tr>
</tbody>
</table>
C. FREQUENCY CHARACTERISTICS:

1. Wide band response

![Wide band response graph](image)

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

2. Pass band & Group Delay response

![Pass band & Group Delay graph](image)

Fig. 2: Horizontal: 5MHz/Div, Vertical: 1dB/Div, Vertical: 50ns/Div
D. OUTLINE DRAWING:

- K: RF input
- D: RF output
- Others: Ground
- Unit: mm

E. MATCHING CIRCUIT:

- \( L_1 = 3nH \)
- \( C_1 = 27pF \)
- \( C_2 = 10pF \)
- \( C_3 = 10pF \)

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension

2. Tape Dimension

Direction of Feed
H. 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 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.