SAW Filter 228.1MHz

Part No: MP02548

Model: TB0573A

REV NO.: 2

A. MAXIMUM RATING:
1. Operating Temperature: -40°C to +85°C
2. Storage Temperature: -40°C to +85°C
3. Maximum Input Power: 10dBm

B. ELECTRICAL CHARACTERISTICS:
1. Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Item</th>
<th>Min.</th>
<th>Typical</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency (Fc)</td>
<td>MHz</td>
<td>-</td>
<td>228.1</td>
</tr>
<tr>
<td>Insertion loss at Fc</td>
<td>dB</td>
<td>-</td>
<td>10.0</td>
</tr>
<tr>
<td>Bandwidth at -1.0dB</td>
<td>MHz</td>
<td>27.0</td>
<td>29.0</td>
</tr>
<tr>
<td>Amplitude Ripple (Fc ± 12.5 MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.3</td>
</tr>
<tr>
<td>Group Delay Ripple (Fc ± 12.5 MHz)</td>
<td>nS</td>
<td>-</td>
<td>20</td>
</tr>
</tbody>
</table>

Attenuation (Reference level from minimum Insertion loss)

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 MHz ~ 204.1 MHz</td>
<td>dB</td>
<td>40</td>
</tr>
<tr>
<td>304.1 MHz ~ 209.5 MHz</td>
<td>dB</td>
<td>25</td>
</tr>
<tr>
<td>247.5 MHz ~ 252.5 MHz</td>
<td>dB</td>
<td>25</td>
</tr>
<tr>
<td>252.5 MHz ~ 350 MHz</td>
<td>dB</td>
<td>38</td>
</tr>
<tr>
<td>Temp Coefficient</td>
<td>ppm/°C</td>
<td>-</td>
</tr>
</tbody>
</table>
C. FREQUENCY CHARACTERISTICS:

1. S21 Response

![S21 Response Graph]

Fig1. Horizontal: 20MHz/Div Vertical: 10dB/Div

2. Passband Ripple

![Passband Ripple Graph]

Fig2. Horizontal: 5MHz/Div Vertical: 1dB/Div
3. Group Delay Ripple

![Graph showing group delay ripple with labels and legends.](image)

Fig3. Horizontal: 5MHz/Div Vertical: 100nS/Div

### D. MEASUREMENT CIRCUIT

1. Single ended input 50 ohm to Single ended Output 50 ohm

![Circuit diagram showing single-ended inputs and outputs with inductors L1 and L2.](image)

L1=22nH, L2=47nH

Note: The matching structure will change according to different test fixture.
SAW Filter 228.1MHz  
Model: TB0573A  
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E. OUTLINE DRAWING:

- Pin J: RF Input
- Pin D: RF Output
- Unit: mm

F. PCB FOOTPRINT

- Unit: mm
G. PACKING:

1. REEL DIMENSION

2. TAPE DIMENSION

Unit: mm
H. RECOMMENDED REFLOW PROFILE:

![Graph showing the recommended reflow profile for a SAW Filter 228.1MHz with model TB0573A and part number MP02548. The graph plots temperature in degrees Celsius against time in seconds, with a recommended profile for reflow soldering.](image-url)