SAW Filter 495.0MHz
Part No: MP05904

A. MAXIMUM RATING:

   Electrostatic Sensitive Device (ESD)

   1. Operating Temperature: -25°C to +70°C
   2. Storage Temperature: -40°C to +85°C
   3. Maximum Input Power: 10dBm

B. ELECTRICAL CHARACTERISTICS:

   Ambient Temperature: 25°C

<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>495</td>
<td>-</td>
</tr>
<tr>
<td>Insertion loss at Fc</td>
<td>dB</td>
<td>-</td>
<td>14.5</td>
<td>18</td>
</tr>
<tr>
<td>Bandwidth at -1.0dB</td>
<td>MHz</td>
<td>30.0</td>
<td>31.5</td>
<td>-</td>
</tr>
<tr>
<td>Bandwidth at -6.0dB</td>
<td>MHz</td>
<td>-</td>
<td>37.4</td>
<td>38.0</td>
</tr>
<tr>
<td>Bandwidth at -25.0dB</td>
<td>MHZ</td>
<td>44.0</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Amplitude Ripple (Fc ± 15MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.7</td>
<td>1</td>
</tr>
<tr>
<td>Group Delay Ripple (Fc ± 15MHz)</td>
<td>nS</td>
<td>-</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>Absolute Group delay at Fc</td>
<td>nS</td>
<td>-</td>
<td>307</td>
<td>-</td>
</tr>
<tr>
<td>Temp Coefficient</td>
<td>ppm/°C</td>
<td>-</td>
<td>-0.18</td>
<td>-</td>
</tr>
</tbody>
</table>
C. FREQUENCY CHARACTERISTICS:

1. S21 Response

   ![Graph of S21 Response]

   **Fig 1.** Horizontal: 20MHz / Div, Vertical: 10dB / Div

2. Passband Ripple

   ![Graph of Passband Ripple]

   **Fig 2.** Horizontal: 4MHz / Div, Vertical: 1dB / Div
3. Group Delay Ripple

![Group Delay Ripple Graph]

Fig. 3. Horizontal: 4MHz / Div, Vertical: 100nS / Div

D. MEASUREMENT CIRCUIT:

Single ended input 50 ohm to Single ended Output 50 ohm

Note: The matching structure will change according to different test fixture.
E. OUTLINE DRAWING:

![Outline Drawing]

- A: RF Input
- E: RF Output
- B, C, D, F, G, H: Ground
- Unit: mm

F. PCB FOOTPRINT:

![PCB Footprint]
G. PACKING:

1. Reel Dimension (Please Refer To Fr-75d10 for Packing Quantity)

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE:

![Graph showing the recommended reflow profile for the SAW Filter 495.0MHz Model: TB0620A Part No: MP05904 Rev No: 1. The graph illustrates the temperature (°C) over time (Sec) with a reflow profile indicated by a blue line. The temperature range is from 20°C to 280°C, and the time range is from 0 seconds to 360 seconds.](image-url)