SAW Filter 50.0MHz
Part No: MA07558

Model: TB0281A
REV. NO.: 1

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. Operating Temperature: -40°C to 65°C
3. Storage Temperature: -40°C to 85°C

B. ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Type.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency, ( F_c )</td>
<td>MHz</td>
<td>49.7</td>
<td>50</td>
<td>50.3</td>
<td>-</td>
</tr>
<tr>
<td>Minimum Insertion Loss, ( IL )</td>
<td>dB</td>
<td>-</td>
<td>10</td>
<td>11</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude ripple at any 200KHz bandwidth within 5.6MHz</td>
<td>MHz</td>
<td>-</td>
<td>0.7</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>1dB Bandwidth</td>
<td>MHz</td>
<td>5.62</td>
<td>5.77</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3dB Bandwidth</td>
<td>MHz</td>
<td>-</td>
<td>6.12</td>
<td>6.165</td>
<td>-</td>
</tr>
<tr>
<td>40dB Bandwidth</td>
<td>MHz</td>
<td>-</td>
<td>8.22</td>
<td>9.00</td>
<td>-</td>
</tr>
<tr>
<td>Group Delay Variation within 5.6MHz BW</td>
<td>nS</td>
<td>150</td>
<td>200</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Phase Linearity within 5.6MHz BW</td>
<td>rms</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Triple transit supression</td>
<td>dB</td>
<td>35</td>
<td>40</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Attenuation:(Reference level from Min IL)

1. DC~20MHz                                  dB  40  48
2. 20MHz~45MHz                                dB  30  37
3. 55MHz~65MHz                                dB  30  34
4. 65MHz~75MHz                                dB  38  42
5. 75MHz~135MHz                               dB  40  47
C. OUTLINE DRAWING:

![Outline Drawing]

- Pin K: RF Input
- Pin E: RF Output
- Pin L: Input Ground
- Pin F: Output Ground
- Pin A, B, C, D, G, H, I, J: To be Ground
- □: Date code

D. MATCHING CIRCUIT:

![Matching Circuit Diagram]

- L1 = 180nH
- L2 = 510nH

50 ohm

L1=180nH

50 ohm

L2=510nH
SAW Filter 50.0MHz
Part No: MA07558

Model: TB0281A
REV. NO.: 1

E. FREQUENCY CHARACTERISTICS:

Fig. 1 S21 Response Horizontal: 3MHz; Vertical: 10dB/Div

Fig. 2 Inband ripple and phase Horizontal: 0.8MHz; Vertical: 1dB/Div, 10deg/Div
SAW Filter 50.0MHz
Model: TB0281A
Part No: MA07558
REV. NO.: 1

Fig. 3 Wideband response Horizontal: 0.01MHz~150MHz; Vertical: 10dB/Div

Fig. 4 Time domain response Horizontal: -20nS~5uS; Vertical: 10dB/Div