SAW Filter 1457.0MHz
Model: TA1632A
Part No: MP08174
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC voltage: 3V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

<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>1457</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (1452 ~ 1462MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>2.8</td>
<td>4</td>
</tr>
<tr>
<td>Insertion Loss at Center Frequency IL c</td>
<td>dB</td>
<td>-</td>
<td>2.75</td>
<td>3.3</td>
</tr>
<tr>
<td>Amplitude Ripple (1452 ~ 1462MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.1</td>
<td>1</td>
</tr>
<tr>
<td>Bandwidth @ -1dB</td>
<td>MHz</td>
<td>10</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (1452 ~ 1462MHz)</td>
<td>-</td>
<td>-</td>
<td>1.7</td>
<td>2</td>
</tr>
</tbody>
</table>

Attenuation (Reference level from 0dB)

<table>
<thead>
<tr>
<th>Range</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC ~ 100MHz</td>
<td>dB</td>
<td>60</td>
<td>71</td>
<td>-</td>
</tr>
<tr>
<td>100 ~ 1395MHz</td>
<td>dB</td>
<td>40</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>1395 ~ 1401MHz</td>
<td>dB</td>
<td>30</td>
<td>51</td>
<td>-</td>
</tr>
<tr>
<td>1513 ~ 1519MHz</td>
<td>dB</td>
<td>30</td>
<td>42</td>
<td>-</td>
</tr>
<tr>
<td>2852 ~ 2976MHz</td>
<td>dB</td>
<td>40</td>
<td>61</td>
<td>-</td>
</tr>
<tr>
<td>3500 ~ 4000MHz</td>
<td>dB</td>
<td>15</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>Temperature coefficient of frequency</td>
<td>ppm/k</td>
<td>-</td>
<td>-36</td>
<td>-</td>
</tr>
</tbody>
</table>

C. MEASUREMENT CIRCUIT:

HP Network analyzer

```
50Ω   B
      SAW Filter
      A, C, D, F
      E
      50Ω
```
D. FREQUENCY CHARACTERISTICS:

![Graph of frequency characteristics]
SAW Filter 1457.0MHz
Part No: MP08174
Rev No: 1

Reflection Functions:

S11

S22

1 Center 1.467 GHz  IFBW 70 kHz  Span 100 MHz: [F2]

1 1.458000000 GHz  1.7448
2 1.462000000 GHz  1.6448

1 1.458000000 GHz  1.7155
2 1.462000000 GHz  1.3534
E. OUTLINE DRAWING:

B: Input  
E: Output  
A, C, D, F: Ground  
Unit: mm

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE:

![Graph showing recommended reflow profile with temperature and time axes.

- Temperature (°C) ranges from 20 to 280.
- Time (Sec) ranges from 0 to 360.
- Temperature increases rapidly from 20 to 140°C in the first 60 seconds, then remains steady until 180°C.
- A peak temperature of around 240°C is reached around the 120 second mark.
- Temperature then decreases rapidly to 120°C before stabilizing and gradually decreasing to 20°C.

This graph is for reference and should be followed carefully during reflow processes to ensure optimal performance and quality of the SAW Filter 1457.0MHz Model: TA1632A Part No: MP08174 Rev No: 1.