SAW Filter 2436.0MHz  
Model: TA1218A  
Part No: MP05118  
Rev No: 3

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 17dBm
2. DC Voltage: 3V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance: \( Z_S = 50\Omega \)
2. Terminating load impedance: \( Z_L = 50\Omega \)

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency ( F_c )</td>
<td>MHz</td>
<td>-</td>
<td>2436</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (2400 ~ 2472MHz) at 25°C ( IL )</td>
<td>dB</td>
<td>-</td>
<td>3</td>
<td>3.5</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (2400 ~ 2472MHz)</td>
<td>dB</td>
<td>-</td>
<td>3.5</td>
<td>4.4</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude ripple (2400 ~ 2472MHz) at 25°C</td>
<td>dB</td>
<td>-</td>
<td>1.5</td>
<td>2.1</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude ripple (2400 ~ 2472 MHz)</td>
<td>dB</td>
<td>-</td>
<td>2</td>
<td>3.3</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (2400 ~ 2472 MHz)</td>
<td></td>
<td>-</td>
<td>2.1</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB)</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>DC ~60MHz</td>
<td>dB</td>
<td>25</td>
<td>35</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>960 ~ 1580MHz</td>
<td>dB</td>
<td>25</td>
<td>33</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1710 ~ 1990MHz</td>
<td>dB</td>
<td>25</td>
<td>34</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2110 ~ 2170MHz</td>
<td>dB</td>
<td>28</td>
<td>37</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2496 ~ 2690MHz at 25°C</td>
<td>dB</td>
<td>30</td>
<td>40</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2496 ~ 2690MHz</td>
<td>dB</td>
<td>10</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2690 ~ 4800MHz</td>
<td>dB</td>
<td>25</td>
<td>44</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4800 ~ 5000MHz</td>
<td>dB</td>
<td>20</td>
<td>36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5000 ~ 6000MHz</td>
<td>dB</td>
<td>15</td>
<td>31</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency</td>
<td>ppm/°C</td>
<td>-</td>
<td>-36</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
C. OUTLINE DRAWING:

- **top view**
  - Dimensions: 1.4 mm
  - Key Points: B, A

- **bottom view**
  - Dimensions: 0.25 mm, 0.25 mm, 0.75 mm
  - Key Points: A, B, D, E, C

- **side view**
  - Dimension: 0.75 mm
  - Key Points: C

D. MEASUREMENT CIRCUIT:

- **Diagram**
  - Components: C, D, E, B
  - Resistance: 50Ω
  - Unit: mm

E. PCB FOOTPRINT:

- **Diagram**
  - Land Pattern
  - Unit: mm

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TA1218A v3
F. FREQUENCY CHARACTERISTICS:

![FREQUENCY GRAPH]

- F. FREQUENCY CHARACTERISTICS:
  - SAW Filter 2436.0MHz
  - Model: TA1218A
  - Part No: MP05118
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![FREQUENCY GRAPH]

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![FREQUENCY GRAPH]

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TA1218A v3
Reflection Functions

**S11**

Reflection Coefficient S11 for 2436.0MHz with center frequency 2.4GHz and 3dB bandwidth of 2kHz. The graph shows two main peaks at approximately 3.24GHz and 3.74GHz.

**S22**

Reflection Coefficient S22 for 2436.0MHz with center frequency 2.4GHz and 3dB bandwidth of 1kHz. The graph shows a peak at approximately 3.2GHz with a value of 1.0612.

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G. PACKING:

1. Reel Dimension

(Please refer to FR-75D10 for packing quantity)

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 250 ± 10°C peak (max. 10sec).
4. Time: 2 times.

![Pb Free IR Reflow Profile](image_url)