A. **MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 15dBm
2. DC voltage: 3V
3. Operating Temperature: -10°C to +50°C
4. Storage Temperature: -40°C to +85°C

B. **ELECTRICAL CHARACTERISTICS:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency Fc MHz</td>
<td>-</td>
<td>446</td>
<td>-</td>
</tr>
<tr>
<td>Insertion loss (Fc ± 4MHz) IL (dB)</td>
<td>-</td>
<td>2.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Amplitude ripple (Fc ± 4MHz) (dB)</td>
<td>-</td>
<td>0.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fc -100 ~ Fc -40.8MHz (dB)</td>
<td>43</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Fc +40 ~ Fc +100MHz (dB)</td>
<td>38</td>
<td>44</td>
<td>-</td>
</tr>
<tr>
<td>Source impedance Zs (Ω)</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Load impedance Zl (Ω)</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: No matching network required for operation at 50Ω

C. **MEASUREMENT CIRCUIT:**

![Circuit Diagram](image)
D. FREQUENCY CHARACTERISTICS:

![Frequency Characteristics Graph]

- **Center Frequency:** 446.080 MHz
- **Span:** 200 MHz
- **Measurement Date:** 17 Feb 2004
- **Markers:**
  - 1 MHz
  - 2 MHz
  - 3 MHz
  - 4 MHz

**Graph Details:**
- **Labeling:**
  - X-Axis: CENTER
  - Y-Axis: CENTER

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**SAW Filter 446.0MHz**
**Model:** TA0381A
**Part No:** MA07511
**Rev No:** 2
SAW Filter 446.0MHz
Model: TA0381A
Part No: MA07511
Rev No: 2

E. OUTLINE DRAWING:

2: Input
6: Output
1, 3, 4, 5, 7, 8: Ground
Unit: mm

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension (Reel Count: 7” = 1000; 13” = 3000)

2. Tape Dimension

---

G. PACKING:

1. Reel Dimension (Reel Count: 7” = 1000; 13” = 3000)

2. Tape Dimension

---
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 245 ~ 260°C peak (min. 10 sec).
4. Time: 2 times.

![Pb Free IR Reflow Profile](image-url)