SAW Filter 433.920MHz  
Model: TA0944C  
Part No: MP07645  
Rev No: 1

A. MAXIMUM RATING:  
Electrostatic Sensitive Device (ESD)

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

B. 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>433.92</td>
<td>-</td>
</tr>
<tr>
<td>Insertion loss (433.12 ~ 434.72MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>1.8</td>
<td>2.9</td>
</tr>
<tr>
<td>Amplitude ripple (433.12 ~ 434.72MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.4</td>
<td>1.0</td>
</tr>
<tr>
<td>VSWR (433.12 ~ 434.72MHz)</td>
<td>-</td>
<td>-</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB)</td>
<td>dB</td>
<td>58</td>
<td>61</td>
<td>-</td>
</tr>
<tr>
<td>10.0 ~ 380.0MHz</td>
<td>dB</td>
<td>46</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>380.00 ~ 423.420MHz</td>
<td>dB</td>
<td>25</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>443.42 ~ 453.420MHz</td>
<td>dB</td>
<td>35</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>453.42 ~ 460.0MHz</td>
<td>dB</td>
<td>50</td>
<td>54</td>
<td>-</td>
</tr>
<tr>
<td>460.00 ~ 700.0MHz</td>
<td>dB</td>
<td>50</td>
<td>54</td>
<td>-</td>
</tr>
<tr>
<td>700.00 ~ 1000.0MHz</td>
<td>dB</td>
<td>42</td>
<td>46</td>
<td>-</td>
</tr>
<tr>
<td>Source impedance ZS</td>
<td>Ω</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Load impedance ZL</td>
<td>Ω</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:  
1. No matching network required for operation at 50Ω.  
2. For SiO₂ coating.

C. MEASUREMENT CIRCUIT:

```
      50Ω | B          |
     /     |
   A, C, D, F
 SA W Filter
     \
   E
     |
  50Ω
```

TA0944C v1
D. FREQUENCY CHARACTERISTICS:

1. Transfer function

![Graph showing frequency characteristics of a SAW filter]

- Center: 433.920 MHz
- IF BW: 70 kHz
- Span: 160 MHz
2. Reflection Functions

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E. OUTLINE DRAWING:

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

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)

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 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.