A. **MAXIMUM RATING:**
1. Input Power Level: 10 dBm
2. DC Voltage: 5V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -50°C to +95°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, Fc</td>
<td>MHz</td>
<td>-</td>
<td>140</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Minimum Insertion Loss, (Fc±20KHz) IL</td>
<td>dB</td>
<td>-</td>
<td>3.0</td>
<td>6.0</td>
<td>-</td>
</tr>
<tr>
<td>3 dB bandwidth, BW-3</td>
<td>KHz</td>
<td>40</td>
<td>100</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Passband Ripple (Fc±20KHz)</td>
<td>dB</td>
<td>-</td>
<td>0.1</td>
<td>3.0</td>
<td>-</td>
</tr>
<tr>
<td>50 dB bandwidth, BW-50</td>
<td>KHz</td>
<td>-</td>
<td>390</td>
<td>450</td>
<td>-</td>
</tr>
<tr>
<td>Group delay ripple (Fc±20KHz), GD</td>
<td>µs</td>
<td>-</td>
<td>1</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>Temperature coefficient of frequency TCF</td>
<td>ppm/C^2</td>
<td>-</td>
<td>-0.032</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note1. Considering -20 KHz frequency shift from -40°C to +85°C
140.0MHz SAW Filter
Model: TB0217A
Part No: MA06078

C. OUTLINE DRAWING:

Pin configuration
#9 Input
#4 Output
#10 Balance input or input ground
#5 Balance output or output ground
#1,2,3,6,7,8 To be grounded
□ Date code
Unit mm

D. MEASUREMENT CIRCUIT:
50 Ohm Test circuit (single-ended / single-ended)

HP Network analyzer

IN  L1=220nH  SAW Filter  L1=220 nH OUT
50Ω  C1=1.8 pF  50Ω  C1=1.8 pF
1,2,3,6,7,8
E. FREQUENCY CHARACTERISTICS:

![Graph showing frequency characteristics of the 140.0MHz SAW Filter Model: TB0217A Part No: MA06078 REV NO.: 2.](image-url)
F. PACKING:
1. REEL DIMENSION

2. TAPE DIMENSION