A. MAXIMUM RATING:

1. Operating Temperature: -40°C ~ +90°C
2. Storage Temperature: -40°C ~ +90°C
3. Input Power Level: 10 dBm

B. CHARACTERISTICS:

1. Ambient Temperature: 25 °C
2. Optimal Source Impedance(Balanced): 200 ohms
3. Optimal Load Impedance(Balanced): 200 ohms

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency Fc</td>
<td>MHz</td>
<td>Min.</td>
</tr>
<tr>
<td>Minimum Insertion Loss</td>
<td>dB</td>
<td>10.2</td>
</tr>
<tr>
<td>Passband Ripple (Fc ± 2.9MHz)</td>
<td>dB</td>
<td>0.8</td>
</tr>
<tr>
<td>Passband Ripple (Fc ± 5.2MHz)</td>
<td>dB</td>
<td>1.7</td>
</tr>
<tr>
<td>Group Delay Ripple (Fc ± 5.2MHz)</td>
<td>nS</td>
<td>80</td>
</tr>
<tr>
<td>Absolute group delay (at Fc)</td>
<td>uS</td>
<td>0.44</td>
</tr>
<tr>
<td>Attenuation: (Reference level from minimum insertion loss)</td>
<td>dB</td>
<td></td>
</tr>
<tr>
<td>1) Fc ± 10.0MHz ... Fc ± 43.0MHz</td>
<td>dB</td>
<td>37</td>
</tr>
<tr>
<td>2) 411 MHz ~ 413 MHz</td>
<td>dB</td>
<td>40</td>
</tr>
<tr>
<td>3) 393 MHz ~ 411 MHz</td>
<td>dB</td>
<td>40</td>
</tr>
<tr>
<td>4) 343 MHz ~ 393 MHz</td>
<td>dB</td>
<td>42</td>
</tr>
<tr>
<td>Temp Coefficient</td>
<td>ppm/°C²</td>
<td>-18</td>
</tr>
</tbody>
</table>
C. MEASUREMENT CIRCUIT:

(1) Single end 50 ohm to Single end 50 ohm

![Diagram showing single end 50 ohm to single end 50 ohm measurement circuit]

- \( C_1 = 100 \text{pF} \)
- \( L_1 = 8.2 \text{nH} \)
- \( L_2 = 10 \text{nH} \)

(2) Balanced 200 ohm to Balanced 200 ohm

![Diagram showing balanced 200 ohm to balanced 200 ohm measurement circuit]

- \( C_1 = C_2 = 15 \text{pF} \)
- \( L_1 = 22 \text{nH} \)
- \( C_3 = C_4 = 15 \text{pF} \)
- \( L_2 = 20 \text{nH} \)
D. Frequency Characteristics:

1. S21 Response

```
Fig1. Horizontal: 10MHz/Div Vertical: 10dB/Div
```

2. Pass band Ripple

```
Fig2. Horizontal: 2MHz/Div Vertical: 1dB/Div
```
3. Group Delay Ripple

![Group Delay Ripple Graph]

Fig2. Horizontal: 2MHz/Div Vertical: 100nS/Div

4. Wide band Response

![Wide band Response Graph]

Fig4. Horizontal: 50MHz/Div Vertical: 10dB/Div
E. PCB FOOTPRINT:

![PCB Footprint Diagram]

F. OUTLINE DRAWING:

![Outline Drawing Diagram]

Pin J : Balanced Input or single ended input
Pin D : Balanced Output or single ended Output
Pin F : Balanced Input return or single ended Input ground
Pin L : Balanced Output return or single ended Output ground
Pin A,B,C,G,H,I : To be Ground
Units: mm
SAW Filter 456.0MHz
Model: TB0492A
Part No: MP01279

G. PACKING:
1. REEL DIMENSION

2. TAPE DIMENSION
H. RECOMMENDED REFLOW PROFILE:

![Reflow Profile Graph](image)