MABAES0029

1:1 Transmission Line with Tap Transformer
50 - 1200 MHz

Rev. V6

Features
- Surface Mount
- 1:1 Impedance Ratio
- Available on Tape & Reel
- RoHS* Compliant
- 260°C Reflow Compatible

Description
The MABAES0029 is a 1:1 transmission line transformer with tap in a low cost surface mount package.

Ideally suited for CATV Broadband applications.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MABAES0029</td>
<td>2000 piece reel</td>
</tr>
</tbody>
</table>

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Input Power</td>
<td>0.5 W</td>
</tr>
<tr>
<td>DC Current</td>
<td>500 mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

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Typical Performance Curves

**Insertion Loss (Pin 4-1)**

![Graph showing insertion loss (Pin 4-1)]

**Insertion Loss (Pin 4-3)**

![Graph showing insertion loss (Pin 4-3)]

**Phase Balance**

![Graph showing phase balance]

**Amplitude Balance**

![Graph showing amplitude balance]

Electrical Specifications: $Z_0 = 75\,\Omega$, $T_a = 25^\circ\mathrm{C}$, $P_{in} = 0\,\text{dBm}$
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50 - 1200 MHz

Application Circuit

PCB Layout

Lead-Free Outline Drawing

Tape & Reel Information

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qty per reel</td>
<td>-</td>
<td>2000</td>
</tr>
<tr>
<td>Reel size</td>
<td>mm</td>
<td>330</td>
</tr>
<tr>
<td>Tape width (W)</td>
<td>mm</td>
<td>16.00</td>
</tr>
<tr>
<td>Pitch (P₁)</td>
<td>mm</td>
<td>8.00</td>
</tr>
<tr>
<td>A₀</td>
<td>mm</td>
<td>5.8</td>
</tr>
<tr>
<td>B₀</td>
<td>mm</td>
<td>7.0</td>
</tr>
<tr>
<td>K₀</td>
<td>mm</td>
<td>5.0</td>
</tr>
<tr>
<td>Orientation</td>
<td>-</td>
<td>F26</td>
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</table>

Reference Application note ANI-019 for orientation

Dimensions in mm:
Tolerance: ±0.2 mm unless otherwise noted.
Model number and lot code are printed on the reel.
Lead plating: SAC-305.

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