MABA-009807-CF4010

4:1 RF Transformer
0.05 - 3.072 MHz

Features
- Surface Mount
- 4:1 Impedance
- CT on Secondary
- 50 Ohm
- RoHS compliant, lead free
- RoHS version of ETM4-1T-2

Description
M/A-COM’s MABA-009807-CF4010 is a 4:1 RF Transformer in a low cost surface mount package. Ideally suited for high volume CATV application.

Pin Configuration

<table>
<thead>
<tr>
<th>Function</th>
<th>Pin Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Dot</td>
<td>1</td>
</tr>
<tr>
<td>Secondary Centre Tap</td>
<td>2</td>
</tr>
<tr>
<td>Secondary</td>
<td>3</td>
</tr>
<tr>
<td>Primary</td>
<td>4</td>
</tr>
<tr>
<td>Not Connected</td>
<td>5</td>
</tr>
<tr>
<td>Primary Dot</td>
<td>6</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>MABA-009807-CF4010</td>
<td>900 pieces per reel</td>
</tr>
</tbody>
</table>

Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Note: Reference Application Note M513 for reel size information.

### Recommended Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF Power</td>
<td>250mW</td>
</tr>
<tr>
<td>DC Current</td>
<td>30mA</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-20°C to +85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55°C to +100°C</td>
</tr>
</tbody>
</table>

### Application Circuit

![Application Circuit Diagram]

### Electrical Specifications: $T_A = 25°C$, 0dBm, $Z_0 = 50Ω$

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Units</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>.05 – 3.072 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>.05 – 3.072 MHz</td>
<td>dB</td>
<td>–</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Amplitude Balance</td>
<td>.05 – 3.072 MHz</td>
<td>dB</td>
<td>–</td>
<td>–</td>
<td>±0.1</td>
</tr>
<tr>
<td>Phase Balance</td>
<td>.05 – 3.072 MHz</td>
<td>°</td>
<td>–</td>
<td>–</td>
<td>±1</td>
</tr>
<tr>
<td>Input Return Loss</td>
<td>.05 – .20 MHz</td>
<td>dB</td>
<td>18</td>
<td>25</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>.20 - 3.072 MHz</td>
<td>dB</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>
Typical Performance Curves: $T_A = 25°C$, 0dBm, $Z_0 = 50Ω$

**Insertion Loss: Pin4 - Pin1**

**Insertion Loss: Pin4 - Pin3**

**Amplitude Balance**

**Phase Balance**

**Return Loss: Input**

**Component Package orientation**