RF Pulse Transformer, 750 KHz - 400 MHz

**Features**
- 50 Ohms Unbalanced/200 Ohms Balanced
- Low Insertion Loss: 0.4 dB Typical
- DC Isolation: Input to Output
- MIL-STD-202 Screening Available

**Description**
The flux coupled Balun Transformer can provide a wide range of impedance ratios: 1:1, 4:1, 9:1 and 16:1 are most common. DC isolation from primary coil to secondary coil is also a feature of this device.

**Schematic/Pin Configuration**

![Schematic/Pin Configuration Diagram]

- Pins 1 & 3 are grounded to case
- **Pin 5 to be externally grounded**

**Electrical Specifications: \( T_A = -55^\circ C \) to \( +85^\circ C \)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Test Conditions</th>
<th>Frequency</th>
<th>Units</th>
<th>Min</th>
<th>Typ</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance</td>
<td>Input - 50 Ohms Unbalanced</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Output - 200 Ohms Balanced</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>—</td>
<td>10 - 50 MHz</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>0.55</td>
</tr>
<tr>
<td>VSWR</td>
<td>—</td>
<td>5 MHz - 200 MHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>1.3:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>750 MHz - 400 MHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>2.0:1</td>
</tr>
<tr>
<td>Input Power</td>
<td>—</td>
<td>750 MHz - 4 MHz</td>
<td>Watts</td>
<td>—</td>
<td>—</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 MHz - 400 MHz</td>
<td>Watts</td>
<td>—</td>
<td>—</td>
<td>1.0</td>
</tr>
<tr>
<td>Rise Time</td>
<td>10 - 90%</td>
<td>—</td>
<td>nS</td>
<td>—</td>
<td>0.55</td>
<td>—</td>
</tr>
<tr>
<td>Droop (10%)</td>
<td>—</td>
<td>—</td>
<td>nS</td>
<td>—</td>
<td>130</td>
<td>—</td>
</tr>
</tbody>
</table>

**FP-1**

![FP-1 Diagram]

Dimensions in 0.01 in.

unless otherwise noted XXX = ±0.200 X = ±0.020

Weigh (Approx 0.05 lb, 0.224g)

**Notes:**
- **ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
- **PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.
- North America Tel: 800.366.2266 • Europe Tel: +353.21.244.6400
- India Tel: +91.80.4155721 • China Tel: +86.21.2407.1586

Visit www.macomtech.com for additional data sheets and product information.
TP-104

RF Pulse Transformer,
750 KHz - 400 MHz

Typical Performance Curves

**Insertion Loss**

**VSWR**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-104 PIN</td>
<td>FP-1</td>
</tr>
</tbody>
</table>

**Ordering Information**

**ADVANCED:** Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

**PRELIMINARY:** Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

Visit www.macomtech.com for additional data sheets and product information.

**North America** Tel: 800.366.2266  **Europe** Tel: +353.21.244.6400
**India** Tel: +91.80.4155721  **China** Tel: +86.21.2407.1588