RF Pulse Transformer
1 - 500 MHz

Features
- 50 Ω Unbalanced / 200 Ω Unbalanced
- 0.75 dB Insertion Loss
- 0.35 ns Rise Time
- MIL-STD-202 Screening Available

Applications
- Aerospace & Defense
- ISM

Description
The transformer coupled balun can provide a wide frequency range. DC isolation from primary coil to secondary coil is also a feature of this device.

Functional Schematic

Electrical Specifications: $T_A = -55^\circ C - +85^\circ C$

<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>Impedance</td>
<td>Input: Unbalanced Output: Unbalanced</td>
<td>Ω</td>
<td>—</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>10 - 50 MHz</td>
<td>dB</td>
<td>—</td>
<td>0.75</td>
<td>—</td>
</tr>
<tr>
<td>VSWR</td>
<td>5 - 250 MHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>1.3:1</td>
</tr>
<tr>
<td></td>
<td>2 - 500 MHz</td>
<td></td>
<td></td>
<td>1.6:1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - 2 MHz</td>
<td></td>
<td></td>
<td>2.0:1</td>
<td></td>
</tr>
<tr>
<td>Input Power</td>
<td>1 - 5 MHz</td>
<td>W</td>
<td>—</td>
<td>—</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>5 MHz - 1 GHz</td>
<td></td>
<td></td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Rise Time</td>
<td>10% - 90%</td>
<td>ns</td>
<td>—</td>
<td>0.35</td>
<td>—</td>
</tr>
<tr>
<td>Droop (10%)</td>
<td>—</td>
<td>ns</td>
<td>—</td>
<td>150</td>
<td>—</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-102-PIN</td>
<td>tape &amp; reel</td>
</tr>
</tbody>
</table>
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Typical Performance Curves

*Insertion Loss*

*VSWR*

Outline (FP-1)

Dimensions in 0 are in mm:

- Unless otherwise noted, XXX = ±0.010, XXX = ±0.25
- XX = ±0.02, [XX = ±0.05]

WEIGHT (APPROX.): 0.07 OUNCE, 2 GRAMS

For further information and support please visit:
https://www.macom.com/support
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