RF Pulse Transformer
500 kHz - 1.5 GHz

Features
- 50 Ω Unbalanced / 50 Ω Balanced
- 0.4 dB Insertion Loss
- 0.18 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: Balanced</td>
<td>Ω</td>
<td>—</td>
<td>50</td>
<td>—</td>
</tr>
<tr>
<td>Insertion Loss</td>
<td>10 - 50 MHz</td>
<td>dB</td>
<td>—</td>
<td>—</td>
<td>0.5</td>
</tr>
<tr>
<td>VSWR</td>
<td>1 MHz - 1 GHz 750 kHz - 1.5 GHz</td>
<td>Ratio</td>
<td>—</td>
<td>—</td>
<td>1.4:1 1.6:1</td>
</tr>
<tr>
<td>Input Power</td>
<td>750 kHz - 1 MHz 1 MHz - 5 MHz 5 MHz - 1.5 GHz</td>
<td>W</td>
<td>—</td>
<td>—</td>
<td>1.0 1.5 3.0</td>
</tr>
<tr>
<td>Rise Time</td>
<td>10% - 90%</td>
<td>ns</td>
<td>—</td>
<td>0.18</td>
<td>—</td>
</tr>
<tr>
<td>Droop (10%)</td>
<td>—</td>
<td>ns</td>
<td>—</td>
<td>300</td>
<td>—</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP-101-PIN</td>
<td>tape &amp; reel</td>
</tr>
</tbody>
</table>
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TP-101
Rev. V4

Typical Performance Curves

Insertion Loss

VSWR

Outline (FP-1)

Dimensions in O are in mm:
Unless Otherwise Noted: XXX = ±0.010 (XXX = ±0.25)
LXX = ±0.02 (LXX = ±0.5)
WEIGHT (APPROX): 0.07 OUNCES 2 GRAMS
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