Surface Mount
RF Transformer
50Ω 20 to 1200 MHz

Maximum Ratings
Operating Temperature -20°C to 85°C
Storage Temperature -55°C to 100°C
RF Power 2W
DC Current 30mA
Permanent damage may occur if any of these limits are exceeded.

Pin Connections
PRIMARY DOT 1
PRIMARY 3
SECONDARY DOT 6
SECONDARY 4
NOT USED 2, 5

Outline Drawing

Outline Dimensions (inch) (mm)
A B C D E F G .272 .310 .220 .100 .112 .055 .100 .691 .787 .539 .254 .284 .140 .254
H J K L wt .030 .026 .065 .300 grams .76 .66 .105 .732 .020

Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit’s applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, “Standard Terms”); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits’ website at www.minicircuits.com/MCLStore/terms.jsp

Features
• wideband, 20 to 1200 MHz
• balanced transmission line
• excellent amplitude unbalance, 0.3 dB typ.
• and phase unbalance, 3 deg. typ. in 1 dB bandwidth
• RF power, 2W
• aqueous washable
• protected under US patent 6,133,525

Applications
• vespas matching
• balanced amplifier
• baluns
• cellular
• VHF

Transformer Electrical Specifications

<table>
<thead>
<tr>
<th>RATIO</th>
<th>FREQUENCY (MHz)</th>
<th>INSERTION LOSS* (dB)</th>
<th>PHASE UNBALANCE (Deg.) Typ.</th>
<th>AMPLITUDE UNBALANCE (dB) Typ.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 dB MHz</td>
<td>2 dB MHz</td>
<td>1 dB MHz</td>
<td>1 dB bandwidth</td>
</tr>
<tr>
<td>1</td>
<td>20-1200</td>
<td>-</td>
<td>-</td>
<td>20-1200</td>
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</tbody>
</table>

* Insertion Loss is referenced to mid-band loss, 0.6 dB typ.

Typical Performance Data

<table>
<thead>
<tr>
<th>FREQUENCY (MHz)</th>
<th>INSERTION LOSS (dB)</th>
<th>INPUT R. LOSS (dB)</th>
<th>AMPLITUDE UNBALANCE (dB)</th>
<th>PHASE UNBALANCE (Deg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.00</td>
<td>0.28</td>
<td>26.05</td>
<td>0.32</td>
<td>3.48</td>
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<tr>
<td>30.00</td>
<td>0.28</td>
<td>25.08</td>
<td>0.26</td>
<td>2.31</td>
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<tr>
<td>50.00</td>
<td>0.28</td>
<td>23.04</td>
<td>0.28</td>
<td>1.42</td>
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<tr>
<td>100.00</td>
<td>0.37</td>
<td>18.99</td>
<td>0.23</td>
<td>0.30</td>
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<tr>
<td>300.00</td>
<td>0.74</td>
<td>11.63</td>
<td>0.17</td>
<td>0.99</td>
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<tr>
<td>500.00</td>
<td>0.98</td>
<td>9.26</td>
<td>0.04</td>
<td>1.35</td>
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<tr>
<td>700.00</td>
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<td>8.93</td>
<td>0.14</td>
<td>0.73</td>
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<td>900.00</td>
<td>0.76</td>
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<td>0.48</td>
<td>0.35</td>
</tr>
<tr>
<td>1000.00</td>
<td>0.74</td>
<td>10.10</td>
<td>0.65</td>
<td>0.92</td>
</tr>
<tr>
<td>1200.00</td>
<td>1.32</td>
<td>7.49</td>
<td>0.99</td>
<td>2.65</td>
</tr>
</tbody>
</table>

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Demo Board MCL P/N: TB-94

Config. G

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