Surface Mount
RF Transformer
T1-1T-KK81+
T1-1T-KK81
50Ω 0.08 to 200 MHz

Maximum Ratings
- Operating Temperature: -20°C to 85°C
- Storage Temperature: -55°C to 100°C
- RF Power: 0.25W
- DC Current: 30mA
- Permanent damage may occur if any of these limits are exceeded.

Pin Connections
- PRIMARY DOT: 4
- PRIMARY: 6
- SECONDARY DOT: 3
- SECONDARY: 1
- SECONDARY CT: 2
- NOT USED: 5

Features
- wideband, 0.08 to 200 MHz
- excellent return loss
- also available with plug-in (X65)
- flat-pack (W38) leads

Applications
- VHF
- receivers/transmitters

Transformer Electrical Specifications

<table>
<thead>
<tr>
<th>Ω RATIO</th>
<th>FREQUENCY (MHz)</th>
<th>3 dB MHz</th>
<th>2 dB MHz</th>
<th>1 dB MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.08-200</td>
<td>.08-200</td>
<td>0.15-150</td>
<td>0.2-80</td>
</tr>
</tbody>
</table>

*Insertion Loss is referenced to mid-band loss, 0.3 dB typ.

Permanent damage may occur if any of these limits are exceeded.

CASE STYLE: KK81
+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

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

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T1-1T-KK81+
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Outline Dimensions (inch [mm])

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.62</td>
<td>6.86</td>
<td>0.84</td>
<td>0.25</td>
<td>1.07</td>
<td>0.51</td>
<td>2.54</td>
<td>1.27</td>
<td>1.27</td>
</tr>
<tr>
<td>K</td>
<td>L</td>
<td>M</td>
<td>N</td>
<td>P</td>
<td>Q</td>
<td>R</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>0.020</td>
<td>0.036</td>
<td>0.26</td>
<td>0.575</td>
<td>0.690</td>
<td>0.125</td>
<td>0.050</td>
<td>0.100</td>
<td></td>
</tr>
<tr>
<td>0.51</td>
<td>0.91</td>
<td>6.60</td>
<td>14.61</td>
<td>15.94</td>
<td>3.18</td>
<td>1.27</td>
<td>2.54</td>
<td></td>
</tr>
</tbody>
</table>

Config. A

PRI
SEC

Typical Performance Data

<table>
<thead>
<tr>
<th>FREQUENCY (MHz)</th>
<th>INSERTION LOSS (dB)</th>
<th>INPUT R. LOSS (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>2.78</td>
<td>1.64</td>
</tr>
<tr>
<td>0.08</td>
<td>1.18</td>
<td>4.39</td>
</tr>
<tr>
<td>0.20</td>
<td>0.52</td>
<td>9.45</td>
</tr>
<tr>
<td>0.50</td>
<td>0.38</td>
<td>16.31</td>
</tr>
<tr>
<td>1.00</td>
<td>0.36</td>
<td>19.67</td>
</tr>
<tr>
<td>80.00</td>
<td>0.64</td>
<td>9.96</td>
</tr>
<tr>
<td>99.33</td>
<td>0.76</td>
<td>8.80</td>
</tr>
<tr>
<td>150.00</td>
<td>1.23</td>
<td>5.83</td>
</tr>
<tr>
<td>192.51</td>
<td>1.60</td>
<td>4.60</td>
</tr>
<tr>
<td>200.00</td>
<td>1.63</td>
<td>4.55</td>
</tr>
</tbody>
</table>

T1-1T-KK81
INSERTION LOSS

T1-1T-KK81
INPUT RETURN LOSS

REV B
M151107
T1-1T-KK81
141008+RoHS Compliant
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Outline Drawing

T1-1T-KK81
INSERTION LOSS
0.0 1.0 2.0 3.0 4.0 5.0
0.01 0.1 1.0 10.0 100.0 FREQUENCY (MHz)

T1-1T-KK81
INPUT RETURN LOSS
0.0 5.0 10.0 15.0 20.0 25.0
0.01 0.1 1.0 10.0 100.0 FREQUENCY (MHz)