Wideband Transformers

- Surface mount and through hole versions
- 500 Vrms, 1 minute interwinding isolation (hipot), 1/4 Watt RF input power
- 250 mA max current rating.
- For a smaller package size, see our WBC Series

Core material  Ferrite  
Terminations  RoHS compliant matte tin over nickel over phosphor bronze. Other terminations available at additional cost.
Weight  0.38 – 0.40 g
Ambient temperature  –40°C to +85°C  
Storage temperature  Component: –40°C to +85°C. Tape and reel or tube packaging: –40°C to +80°C
Resistance to soldering heat  Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL)  1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging  (SM version): 500 per 13” reel;
Plastic tape: 24 mm wide, 0.42 mm thick, 20 mm pocket spacing, 6.6 mm pocket depth; (TH version): 70 per tube
PCB washing  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Dimensions – surface mount parts

Dimensions are in inches

Recommended Land Pattern

Part number: WBxxxx
Internal code: XXXX

Dot indicates pin #1

Dimensions – through hole parts

Dimensions are in inches

Recommended Board Layout

Part number: WBxxxx
Internal code: XXXX

Dot indicates pin #1

Parts manufactured prior to August 2015 may be marked differently.
## Wideband Transformers

<table>
<thead>
<tr>
<th>Schematic</th>
<th>Part number</th>
<th>Impedance ratio&lt;sup&gt;1&lt;/sup&gt; pri:sec</th>
<th>Bandwidth (MHz)</th>
<th>Insertion loss max&lt;sup&gt;2&lt;/sup&gt; (dB)</th>
<th>Pri (pins 4-6) L min&lt;sup&gt;3&lt;/sup&gt; (µH)</th>
<th>DCR max&lt;sup&gt;4&lt;/sup&gt; (mOhm)</th>
<th>Sec (pins 1-3) L min&lt;sup&gt;3&lt;/sup&gt; (µH)</th>
<th>DCR max&lt;sup&gt;4&lt;/sup&gt; (mOhm)</th>
<th>DC imbalance&lt;sup&gt;5&lt;/sup&gt; max (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB1-1SL_</td>
<td>WB1-1L</td>
<td>1:1</td>
<td>0.150 – 500</td>
<td>0.70</td>
<td>27</td>
<td>75</td>
<td>27</td>
<td>75</td>
<td>—</td>
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<tr>
<td>WB1-6SL_</td>
<td>WB1-6L</td>
<td>1:1</td>
<td>0.100 – 350</td>
<td>0.50</td>
<td>25</td>
<td>100</td>
<td>25</td>
<td>100</td>
<td>—</td>
</tr>
<tr>
<td>WB1.18-3SL_</td>
<td>WB1.18-3L</td>
<td>1:1.18</td>
<td>0.040 – 300</td>
<td>0.50</td>
<td>90</td>
<td>300</td>
<td>108</td>
<td>330</td>
<td>—</td>
</tr>
<tr>
<td>WB1.5-6SL_</td>
<td>WB1.5-6L</td>
<td>1:1.5</td>
<td>0.050 – 325</td>
<td>0.26</td>
<td>56</td>
<td>120</td>
<td>84</td>
<td>150</td>
<td>—</td>
</tr>
<tr>
<td>WB2-1-2WSL_</td>
<td>WB2-1-2WL</td>
<td>1:2</td>
<td>0.080 – 700</td>
<td>1.00</td>
<td>38</td>
<td>100</td>
<td>75</td>
<td>150</td>
<td>—</td>
</tr>
<tr>
<td>WB2.5-6SL_</td>
<td>WB2.5-6L</td>
<td>1:2.5</td>
<td>0.080 – 225</td>
<td>0.26</td>
<td>30</td>
<td>100</td>
<td>75</td>
<td>130</td>
<td>—</td>
</tr>
<tr>
<td>WB4-6SL_</td>
<td>WB4-6L</td>
<td>1:4</td>
<td>0.100 – 125</td>
<td>0.50</td>
<td>25</td>
<td>100</td>
<td>100</td>
<td>200</td>
<td>—</td>
</tr>
<tr>
<td>WB9-1SL_</td>
<td>WB9-1L</td>
<td>1:9</td>
<td>0.125 – 125</td>
<td>0.57</td>
<td>25</td>
<td>100</td>
<td>225</td>
<td>250</td>
<td>—</td>
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<tr>
<td>WB16-1SL_</td>
<td>WB16-1L</td>
<td>1:16</td>
<td>0.050 – 100</td>
<td>0.60</td>
<td>56</td>
<td>75</td>
<td>896</td>
<td>330</td>
<td>—</td>
</tr>
<tr>
<td>WB36-1SL_</td>
<td>WB36-1L</td>
<td>1:36</td>
<td>0.100 – 45</td>
<td>0.50</td>
<td>25</td>
<td>50</td>
<td>900</td>
<td>180</td>
<td>—</td>
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</tbody>
</table>

1. When ordering, please specify **packaging** code:

   **WB25-1SLD**

   **Packaging:**
   - **D** = 13" machine-ready reel. EIA-481 embossed plastic tape (500 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   - **B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Impedance ratio is for the full primary winding to the full secondary winding.
3. Inductance measured at 100 kHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.
4. DCR measured on a micro-ohmmeter.
5. DC imbalance is the maximum difference in current measured at pins 1 and 3 with the source at pin 2. Inductance drop is 15% at max imbalance.
6. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.
Transformers with no center taps

### Attenuation vs. Frequency Graphs

- **WB1-1**: 3 dB bandwidth: 0.150 – 500 MHz
- **WB2.5-6**: 3 dB bandwidth: 0.080 – 225 MHz
- **WB1-6**: 3 dB bandwidth: 0.100 – 350 MHz
- **WB4-6**: 3 dB bandwidth: 0.100 – 125 MHz
- **WB1.5-6**: 3 dB bandwidth: 0.050 – 325 MHz
- **WB9-1**: 3 dB bandwidth: 0.125 – 125 MHz
- **WB36-1**: 3 dB bandwidth: 0.100 – 45 MHz
- **WB1-18-3**: 3 dB bandwidth: 0.040 – 300 MHz
- **WB2-1-2W**: 3 dB bandwidth: 0.080 – 700 MHz
- **WB1-16-1**: 3 dB bandwidth: 0.050 – 100 MHz
- **WB16-1**: 3 dB bandwidth: 0.050 – 100 MHz

### Notes
- Attenuation measured on a network analyzer (re: 50 Ohms)

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This product may not be used in medical or high-risk applications without prior Coilcraft approval.
Specification subject to change without notice.
Please check web site for latest information.
Transformers with secondary center tap

Attenuation measured on a network analyzer (re: 50 Ohms)
Transformers with primary and secondary center taps

Attenuation measured on a network analyzer (re: 50 Ohms)