### Wideband RF Transformers – SWB

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

**Core material** Ferrite  
**Terminations** RoHS compliant matte tin over nickel over phosphorus. Other terminations available at additional cost.

**Weight** 0.37 – 0.39 g  
**Ambient temperature** -40°C to +85°C

**Maximum part temperature** +85°C (ambient + temp rise)

**Storage temperature** Component: -40°C to +85°C.  
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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)** 60 per billion hours / 1,666,667 hours, calculated per Telcordia SR-332

**Packaging** (SM version): 500 per 13″ reel, 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 Doc 787_PCB_Washing.pdf.

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### Impedance Specifications

<table>
<thead>
<tr>
<th>Schematic</th>
<th>Part number</th>
<th>Impedance ratio</th>
<th>$I_{DC\ max}$ (mA)</th>
<th>Frequency (MHz)</th>
<th>$L_{\ min}$ (µH)</th>
<th>$D_{\ max}$ (Ohms)</th>
<th>Pins 1–3</th>
<th>$L_{\ min}$ (µH)</th>
<th>$D_{\ max}$ (Ohms)</th>
<th>Pins 6–4</th>
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<tbody>
<tr>
<td>1</td>
<td>SWB1010-PCL</td>
<td>SWB1010-SML</td>
<td>1:1</td>
<td>250</td>
<td>0.005–100</td>
<td>780</td>
<td>0.320</td>
<td>780</td>
<td>0.320</td>
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<td>SWB1010-1-PCL</td>
<td>SWB1010-1-SML</td>
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<td>250</td>
<td>0.04–175</td>
<td>95</td>
<td>0.200</td>
<td>95</td>
<td>0.200</td>
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<td>0.1–150</td>
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<td>SWB2010-SML</td>
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<td>0.160</td>
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</table>

1. When ordering, please specify a packaging code:  
   - SWB3040-SMLD  
     **Packaging:**  
     - D = 13″ machine ready reel. EIA-481 embossed plastic tape (500 parts per full reel).  
     - B = Less than full reel. in tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.

2. Impedance ratio is for the full primary winding to the full secondary winding.

3. Inductance tested at 130 kHz, 0.1 Vrms, 0 Adc.

4. Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.  
   Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Wideband RF Transformers – SWB

Typical Attenuation vs Current

![Graph showing typical attenuation vs current for SWB transformers.](image)

**Typical Frequency Response**

- **SWB1010, SWB2010, SWB3010**
  3 dB bandwidth 0.005 – 100 MHz

- **SWB1015, SWB3015**
  3 dB bandwidth 0.1 – 150 MHz

- **SWB1040, SWB2040, SWB3040**
  3 dB bandwidth 0.2 – 300 MHz

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