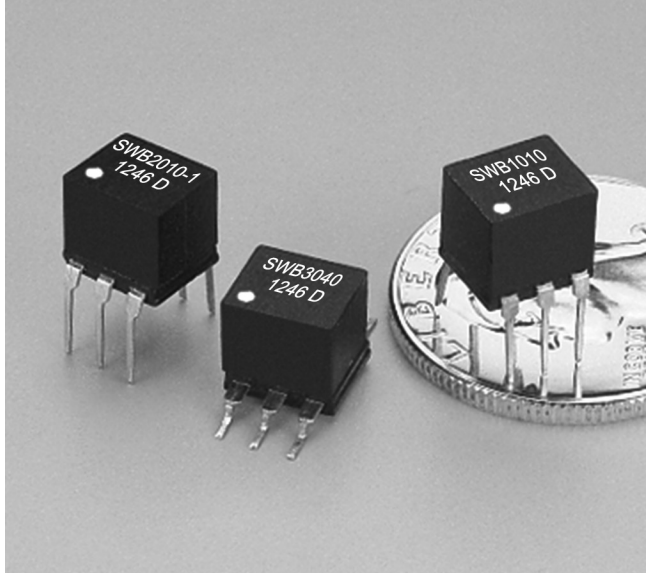




# Wideband RF Transformers – SWB



- 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 phos bronze. 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 / 16,666,667 hours, calculated per Telcordia SR-332

**Packaging** (SM version): 500 per 13" reel;

Plastic tape: 24 mm wide, 0.45 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](#).

| Schematic | Part number   |                            | Impedance ratio <sup>2</sup><br>pri : sec | I <sub>DC</sub> max<br>(mA) | Frequency<br>(MHz) | Pins 1-3                   |                   | Pins 6-4                   |                   |
|-----------|---------------|----------------------------|-------------------------------------------|-----------------------------|--------------------|----------------------------|-------------------|----------------------------|-------------------|
|           | Through-hole  | Surface mount <sup>1</sup> |                                           |                             |                    | L min <sup>3</sup><br>(μH) | DCR max<br>(Ohms) | L min <sup>3</sup><br>(μH) | DCR max<br>(Ohms) |
|           | SWB1010-PCL   | SWB1010-SML                | 1 : 1                                     | 250                         | 0.005–100          | 780                        | 0.320             | 780                        | 0.320             |
|           | SWB1010-1-PCL | SWB1010-1-SML              | 1 : 1                                     | 250                         | 0.04–175           | 95                         | 0.200             | 95                         | 0.200             |
|           | SWB1015-PCL   | SWB1015-SML                | 1.5 : 1                                   | 250                         | 0.1–150            | 80                         | 0.145             | 51                         | 0.130             |
|           | SWB1040-PCL   | SWB1040-SML                | 4 : 1                                     | 250                         | 0.2–300            | 95                         | 0.160             | 25                         | 0.115             |
|           | SWB2010-PCL   | SWB2010-SML                | 1 : 1                                     | 250                         | 0.005–100          | 780                        | 0.320             | 780                        | 0.320             |
|           | SWB2010-1-PCL | SWB2010-1-SML              | 1 : 1                                     | 250                         | 0.04–175           | 95                         | 0.200             | 95                         | 0.200             |
|           | SWB2040-PCL   | SWB2040-SML                | 4 : 1                                     | 250                         | 0.2–300            | 95                         | 0.160             | 25                         | 0.115             |
|           | SWB3010-PCL   | SWB3010-SML                | 1 : 1                                     | 250                         | 0.005–100          | 780                        | 0.320             | 780                        | 0.320             |
|           | SWB3010-1-PCL | SWB3010-1-SML              | 1 : 1                                     | 250                         | 0.04–175           | 95                         | 0.200             | 95                         | 0.200             |
|           | SWB3015-PCL   | SWB3015-SML                | 1.5 : 1                                   | 250                         | 0.1–150            | 80                         | 0.145             | 51                         | 0.130             |
|           | SWB3040-PCL   | SWB3040-SML                | 4 : 1                                     | 250                         | 0.2–300            | 95                         | 0.160             | 25                         | 0.115             |

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.



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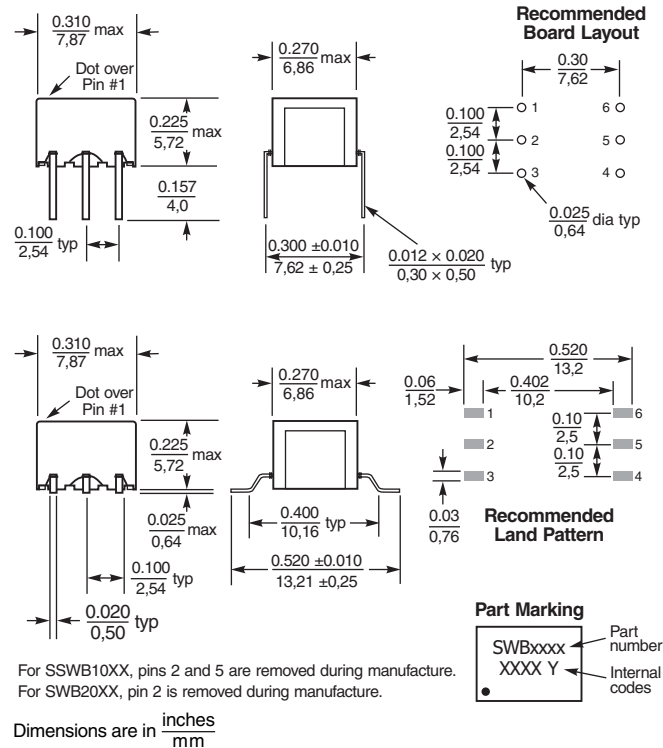
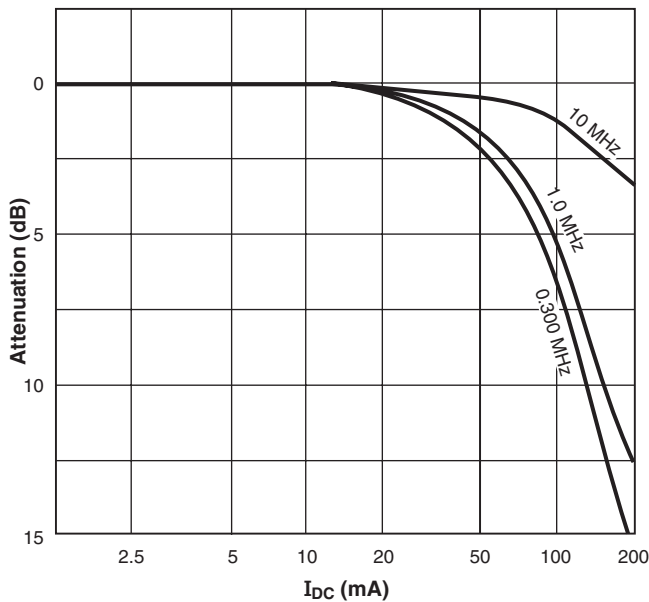
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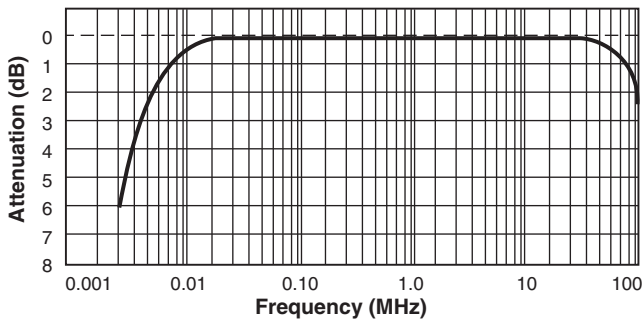
# Wideband RF Transformers – SWB

## Typical Attenuation vs Current

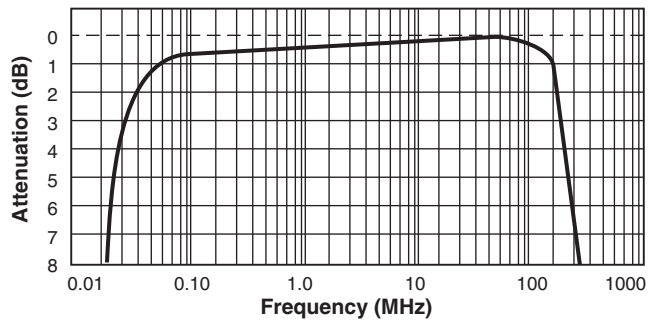


## Typical Frequency Response

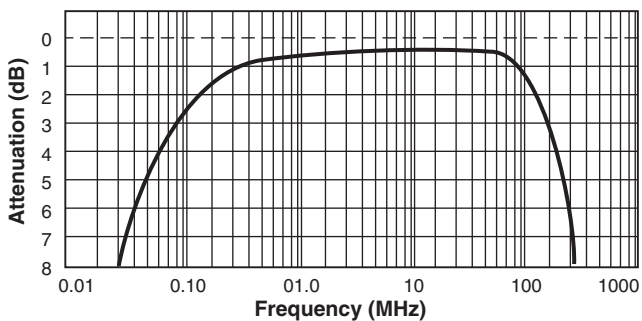
**SWB1010, SWB2010, SWB3010**  
3 dB bandwidth 0.005 – 100 MHz



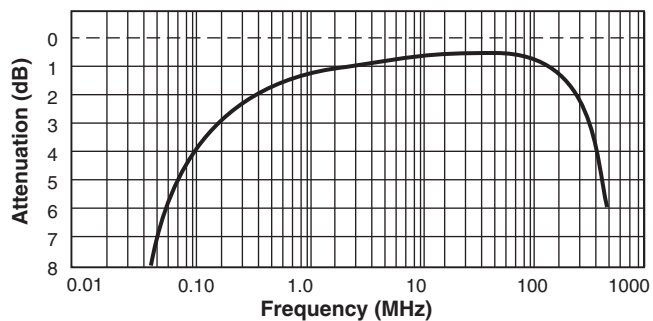
**SWB1010-1, SWB2010-1, SWB3010-1**  
3 dB bandwidth 0.04 – 175 MHz



**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)



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<http://moschip.ru/get-element>

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