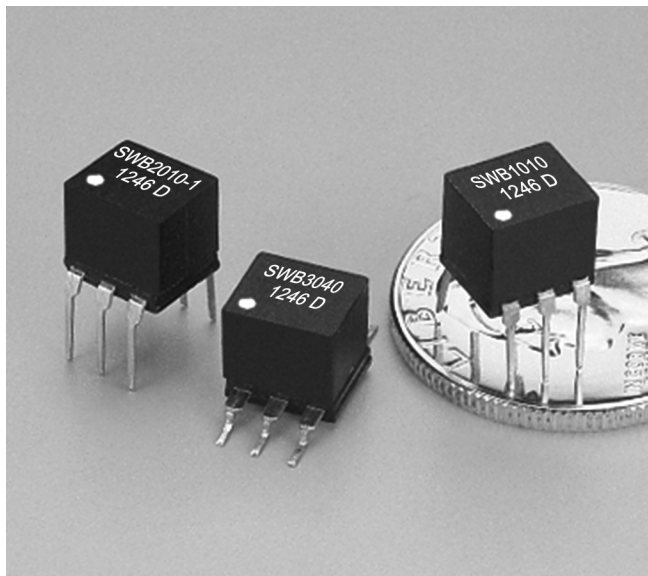




# Wideband RF Transformers – SWB



- 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> pri : sec	I <sub>DC</sub> max (mA)	Frequency (MHz)	Pins 1-3		Pins 6-4	
	Through-hole	Surface mount <sup>1</sup>				L min <sup>3</sup> (μH)	DCR max (Ohms)	L min <sup>3</sup> (μH)	DCR max (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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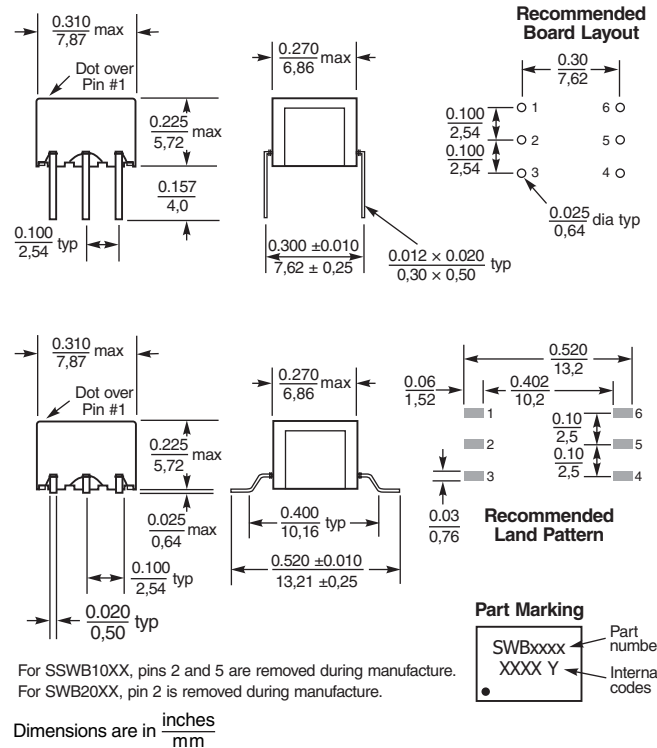
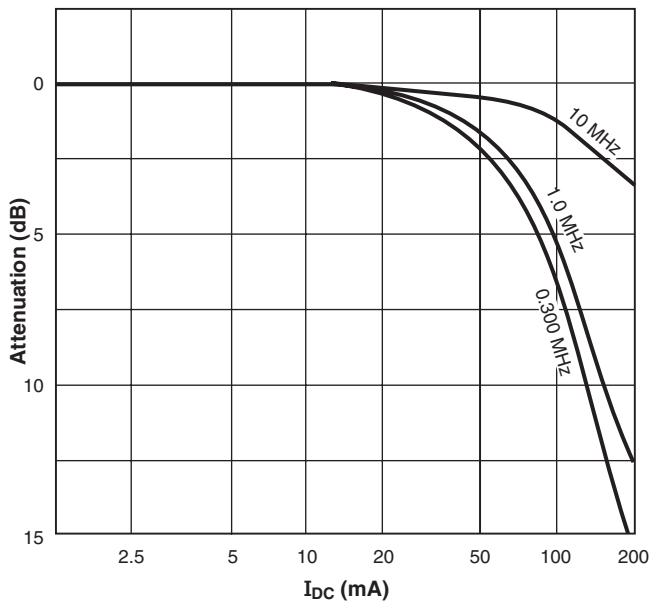
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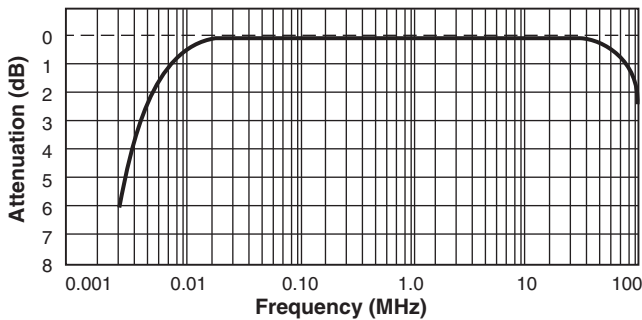
# Wideband RF Transformers – SWB

## Typical Attenuation vs Current

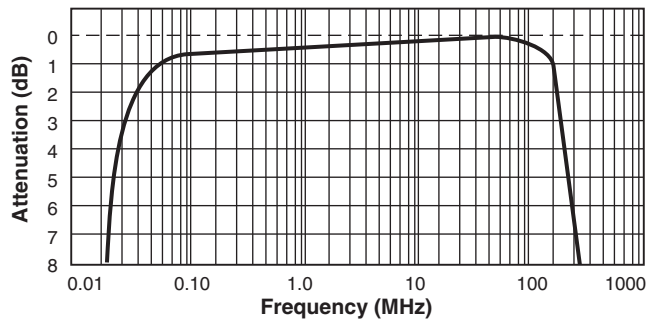


## Typical Frequency Response

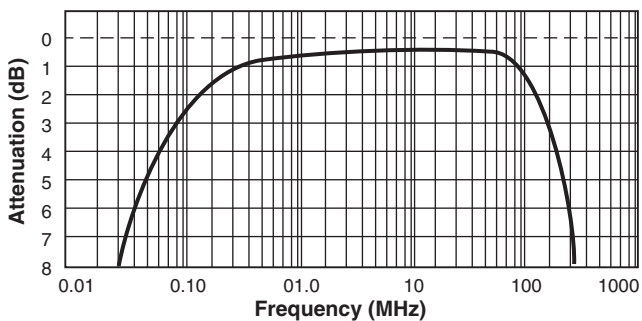
**SWB1010, SWB2010, SWB3010**  
3 dB bandwidth 0.005 – 100 MHz



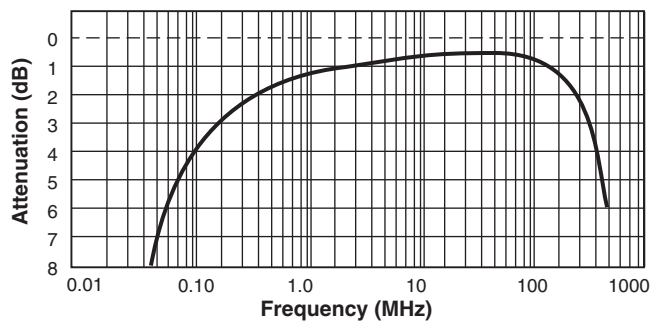
**SWB1010-1, SWB2010-1, SWB3010-1**  
3 dB bandwidth 0.04 – 175 MHz



**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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DCN-736  
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+/-0.25mm

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[SWB1010-1-PCL](#) [SWB1010-PCL](#) [SWB1015-PCL](#) [SWB1015-SMLD](#) [SWB2040-SMLB](#) [SWB2040-PCL](#) [SWB2010-PCL](#)  
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