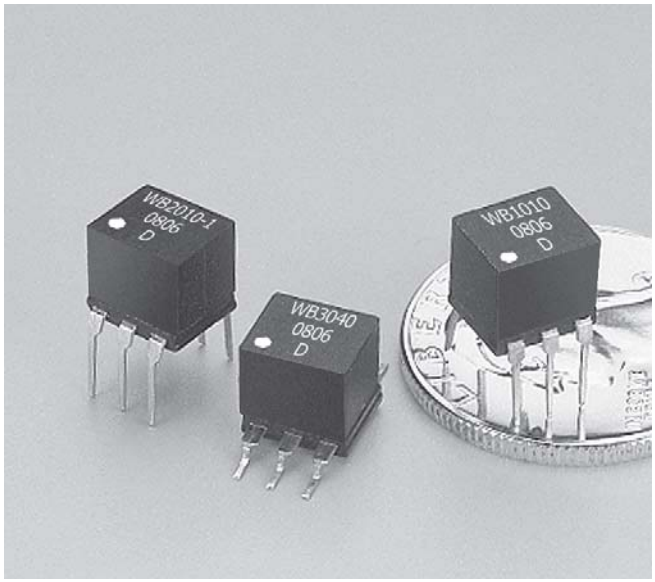
Wideband RF Transformers



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

Core material Ferrite

Terminations RoHS compliant matte tin over nickel over copper. Other terminations available at additional cost.

Weight 0.37 – 0.39 g

Ambient temperature –40°C to +85°C

Storage temperature Component: –40°C to +85°C. Packaging: –40°C to +80°C

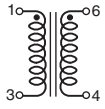
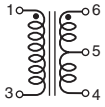
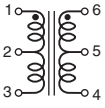
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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, 0.42 mm thick, 20 mm pocket spacing, 6.6 mm pocket depth; (TH version): 54 per tube

PCB washing Only pure water or alcohol recommended

Schematic	Part number Through-hole	Part number Surface mount[1]	Impedance ratio[2] pri:sec	I_{DC} max (mA)	Frequency (MHz)	Pins 1–3 L min[3] (µH)	Pins 1–3 DCR max (Ohms)	Pins 6–4 L min[3] (µH)	Pins 6–4 DCR max (Ohms)
	WB1010-PCL	WB1010-SML_	1:1	250	0.005 – 100	780	0.320	780	0.320
	WB1010-1-PCL	WB1010-1-SML_	1:1	250	0.04 – 175	95	0.200	95	0.200
	WB1015-PCL	WB1015-SML_	1.5:1	250	0.1 – 150	80	0.145	51	0.130
	WB1040-PCL	WB1040-SML_	4:1	250	0.2 – 300	95	0.160	25	0.115
	WB2010-PCL	WB2010-SML_	1:1	250	0.005 – 100	780	0.320	780	0.320
	WB2010-1-PCL	WB2010-1-SML_	1:1	250	0.04 – 175	95	0.200	95	0.200
	WB2040-PCL	WB2040-SML_	4:1	250	0.2 – 300	95	0.160	25	0.115
	WB3010-PCL	WB3010-SML_	1:1	250	0.005 – 100	780	0.320	780	0.320
	WB3010-1-PCL	WB3010-1-SML_	1:1	250	0.04 – 175	95	0.200	95	0.200
	WB3015-PCL	WB3015-SML_	1.5:1	250	0.1 – 150	80	0.145	51	0.130
	WB3040-PCL	WB3040-SML_	4:1	250	0.2 – 300	95	0.160	25	0.115

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

WB3040-SML D

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 100 kHz, 0.1 Vrms, 0 Adc.
4. Electrical specifications at 25°C.

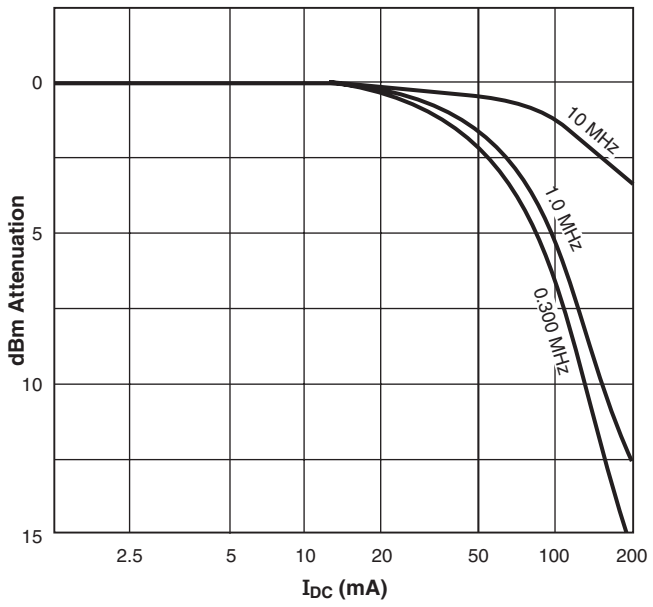
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

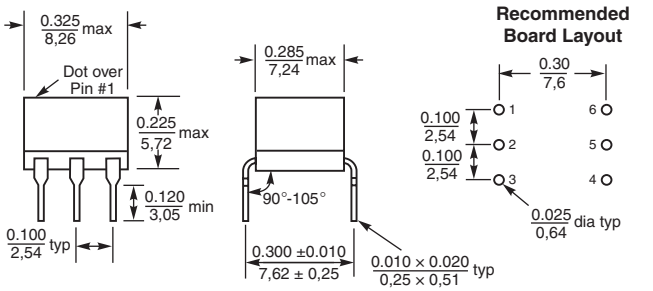
1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

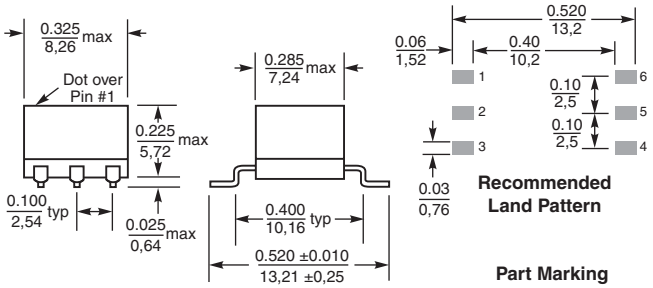
© Coilcraft, Inc. 2009

Wideband RF Transformers

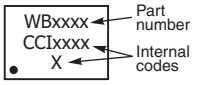
Typical Attenuation vs Current







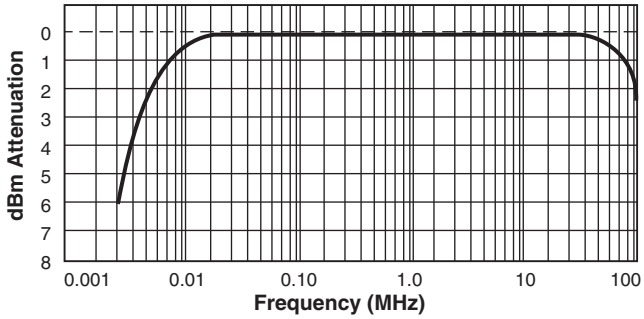
For WB10XX, pins 2 and 5 are removed during manufacture.
For WB20XX, pin 2 is removed during manufacture.



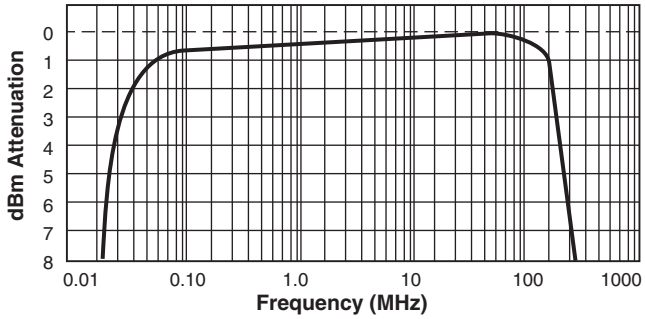
Dimensions are in $\frac{\text{inches}}{\text{mm}}$

Typical Frequency Response

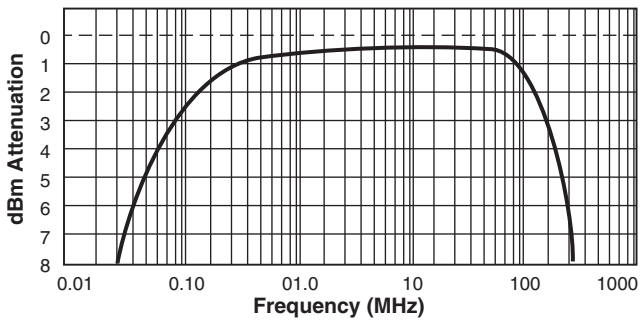
WB1010, WB2010, WB3010
3 dB bandwidth 0.005 – 100 MHz



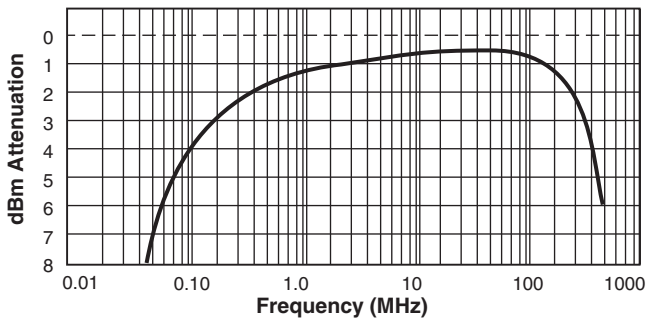
WB1010-1, WB2010-1, WB3010-1
3 dB bandwidth 0.04 – 175 MHz



WB1015, WB3015
3 dB bandwidth 0.1 – 150 MHz



WB1040, WB2040, WB3040
3 dB bandwidth 0.2 – 300 MHz



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

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information.

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

© Coilcraft, Inc. 2009