



# Wideband 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 WBC Series

**Core material** Ferrite

**Terminations** RoHS compliant matte tin over nickel over phos 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)

**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** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

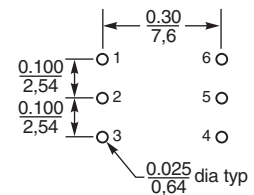
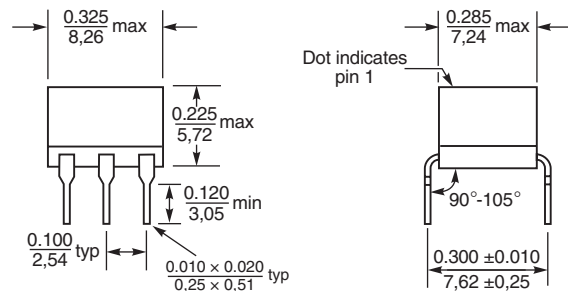
## Dimensions – surface mount parts



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

**Recommended Land Pattern**

## Dimensions – through hole parts



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

**Recommended Board Layout**



# Wideband Transformers

Schematic	Part number		Impedance ratio <sup>2</sup> pri:sec	Bandwidth (MHz)	Insertion loss max (dB)	Pri (pins 4-6)		Sec (pins 1-3)		DC imbalance <sup>5</sup> max (mA)
	SM <sup>1</sup>	TH				L min <sup>3</sup> (μH)	DCR max <sup>4</sup> (mOhm)	L min <sup>3</sup> (μH)	DCR max <sup>4</sup> (mOhm)	
	WB1-1SL_	WB1-1L	1:1	0.150–500	0.70	27	75	27	75	—
	WB1-6SL_	WB1-6L	1:1	0.100–350	0.50	25	100	25	100	—
	WB1.18-3SL_	WB1.18-3L	1:1.18	0.040–300	0.50	90	300	108	330	—
	WB1.5-6SL_	WB1.5-6L	1:1.5	0.050–325	0.26	56	120	84	150	—
	WB2-1-2WSL_	WB2-1-2WL	1:2	0.080–700	1.00	38	100	75	150	—
	WB2.5-6SL_	WB2.5-6L	1:2.5	0.080–225	0.26	30	100	75	130	—
	WB4-6SL_	WB4-6L	1:4	0.100–125	0.50	25	100	100	200	—
	WB9-1SL_	WB9-1L	1:9	0.125–125	0.57	25	100	225	250	—
	WB16-1SL_	WB16-1L	1:16	0.050–100	0.60	56	75	896	330	—
	WB36-1SL_	WB36-1L	1:36	0.100–45	0.50	25	50	900	180	—
	WB1-1TSL_	WB1-1TL	1:1	0.100–375	0.51	25	100	25	100	30
	WB1-6TSL_	WB1-6TL	1:1	0.050–200	0.20	70	150	70	150	18
	WB2-1TSL_	WB2-1TL	1:2	0.070–400	1.00	38	100	75	150	29
	WB2.5-6TSL_	WB2.5-6TL	1:2.5	0.050–125	0.28	56	120	140	200	13
	WB3-1TSL_	WB3-1TL	1:3	0.040–500	0.40	96	110	270	200	4.0
	WB4-1HSL_	WB4-1HL	1:4	0.100–500	0.50	25	120	100	160	15
	WB4-6TSL_	WB4-6TL	1:4	0.050–200	0.50	43	120	172	160	5.0
	WB5-1TSL_	WB5-1TL	1:5	0.050–400	0.30	48	220	240	500	13
	WB8-1TSL_	WB8-1TL	1:8	0.150–400	0.76	18	100	144	270	17
	WB13-1TSL_	WB13-1TL	1:13	0.150–125	0.72	17	90	221	200	10
WB16-6TSL_	WB16-6TL	1:16	0.050–100	0.60	56	75	896	330	25	
	WBT1-6SL_	WBT1-6L	1:1	0.040–200	0.25	70	150	70	150	19
	WBT1.5-1SL_	WBT1.5-1L	1:1.5	0.040–350	0.30	60	150	90	180	19
	WBT2.5-6SL_	WBT2.5-6L	1:2.5	0.050–100	0.26	70	150	175	200	11
	WBT4-1SL_	WBT4-1L	1:3	0.040–150	0.26	45	120	135	160	13
	WBT4-1ASL_	WBT4-1AL	1:4	0.040–350	0.40	96	110	384	220	3.5
	WBT16-1SL_	WBT16-1L	1:16	0.100–100	0.50	25	100	400	300	7.5
WBT25-1SL_	WBT25-1L	1:25	0.100–65	0.50	25	100	625	350	6.0	

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).

**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.

- Impedance ratio is for the full primary winding to the full secondary winding.
  - Inductance measured at 100 kHz, 0.1 V, 0 Adc on an Agilent/HP 4192 or equivalent.
  - DCR measured on a micro-ohmmeter.
  - 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.
  - Electrical specifications at 25°C. Measurements are referenced to 50 Ohms.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

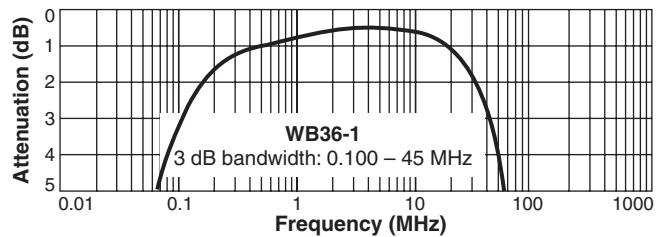
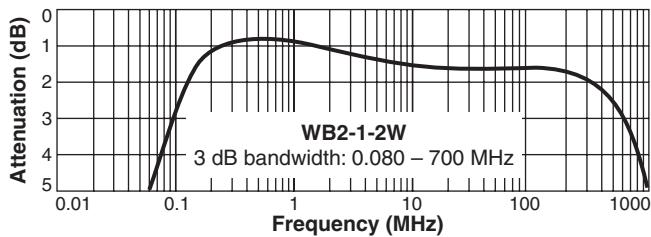
Document 425-2 Revised 04/27/12

© Coilcraft Inc. 2013

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 no center taps



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



## Transformers with secondary center tap



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

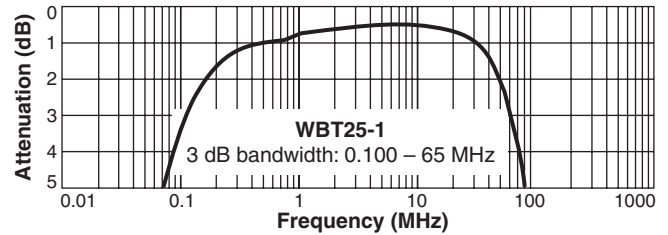
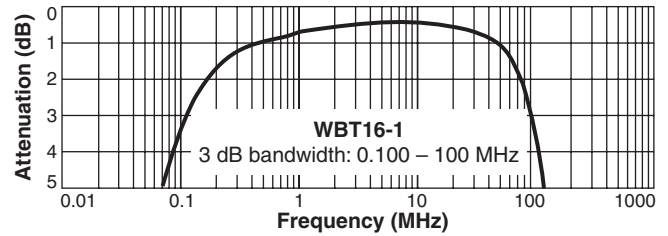
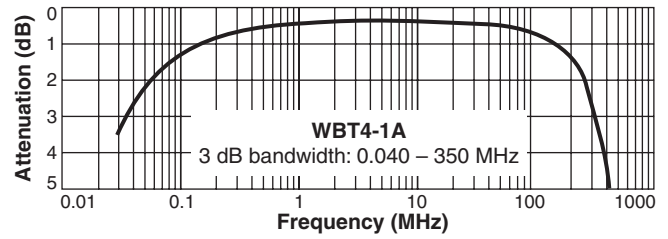


**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 425-4 Revised 04/27/12  
 © Coilcraft Inc. 2013  
 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 primary and secondary center taps



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



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** +65-6484 8412 sales@coilcraft.com.sg

Document 425-5 Revised 04/27/12

© Coilcraft Inc. 2013

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.

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

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

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9