

**NEW!**

# SMT Mini Wideband Transformers



- Smallest wideband transformer: 4 mm square 3 mm high
- 300 V interwinding isolation, 1/4 Watt RF input power
- 250 mA max current rating.

**Designer's Kit C393** contains three of each part

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver-copper over silver-palladium-platinum. Other terminations available at additional cost.

**Weight** 68.0 – 88.8 mg

**Ambient temperature** –40°C to +85°C

**Storage temperature** Component: –40°C to +85°C.  
Packaging: –55°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)

**Mean Time Between Failures (MTBF)** 16,666,667 hours

**Packaging** 750 per 7" reel; 3000 per 13" reel;  
Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing,  
2.9 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Schematic	Impedance ratio <sup>2</sup> pri : sec	Bandwidth (MHz)	Insertion loss max (dB)	Pins 4–6 (primary)		Pins 1–3 (secondary)		DC imbalance <sup>5</sup> max (mA)	Color dot
					L min <sup>3</sup> (μH)	DCR max <sup>4</sup> (mOhm)	L min <sup>3</sup> (μH)	DCR max <sup>4</sup> (mOhm)		
WBC1-1L_	A	1 : 1	0.400 – 600	0.40	10	120	10	120	—	Brown
WBC1-1TL_	B	1 : 1	0.250 – 750	0.58	11	75	11	75	36	Brown
WBC2-1TL_	B	1 : 2	0.200 – 500	0.50	10	120	20	150	8.5	Red
WBC3-1TL_	B	1 : 3	0.300 – 900	0.60	9	100	27	150	8.5	Orange
WBC4-1TL_	B	1 : 4	0.250 – 750	1.0	12	55	48	120	30	Yellow
WBC4-14L_	B	1 : 4	1.500 – 1200	2.0	2	50	8	100	15	Green
WBC4-1WL_	B	1 : 4	0.500 – 1000	0.90	5	60	20	120	10	White
WBC4-6TL_	B	1 : 4	0.300 – 700	0.30	9	80	36	200	7.5	Blue
WBC8-1L_	B	1 : 8	0.150 – 600	0.60	22	120	176	310	17	Gray
WBC9-1L_	B	1 : 9	0.300 – 500	0.54	9	80	81	230	5	White
WBC16-1TL_	B	1 : 16	0.600 – 300	0.80	5	60	80	230	5	Violet
WBC4-4L_	C	1 : 4	0.250 – 800	1.0	12	60	48	120	30	Yellow

1. When ordering, please specify **termination** and **packaging** codes:

WBC4-4 L C

**Termination:** L = RoHS compliant tin-silver-copper (95.5/4/0.5) over silver-palladium-platinum  
Special order: S = non-RoHS tin-lead (63/37).

**Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (750 parts per full reel).

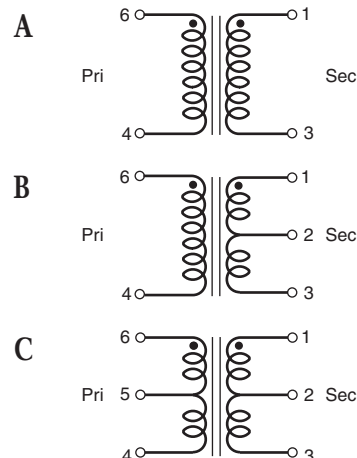
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (3000 parts per full reel).

- 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 maximum imbalance.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Schematics



# Coilcraft®

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

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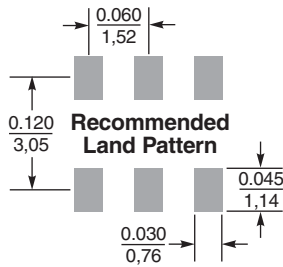
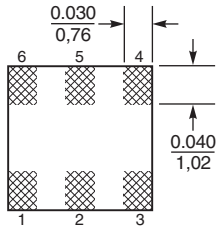
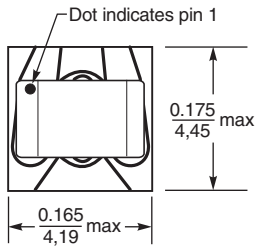
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## Dimensions



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



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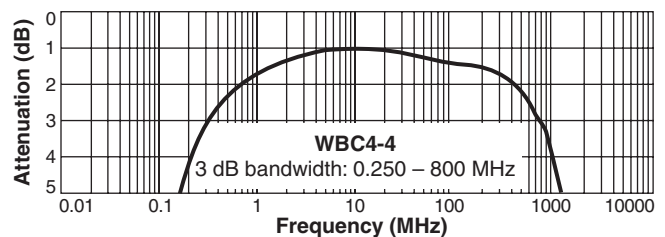
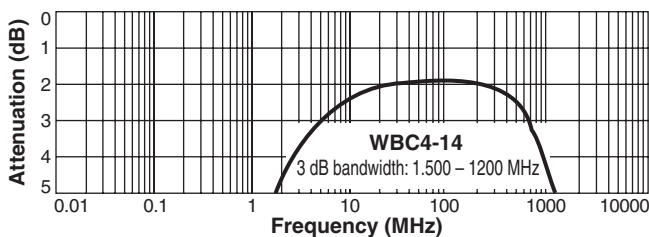
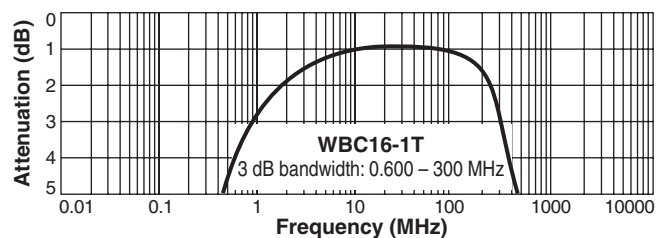
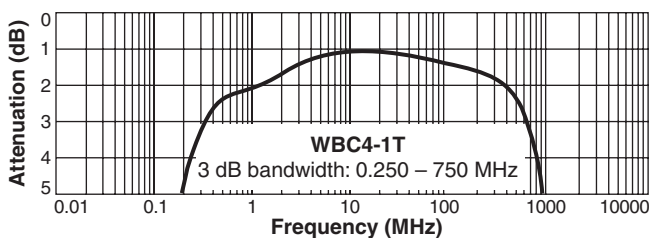
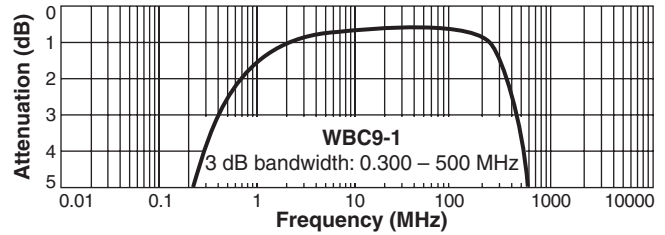
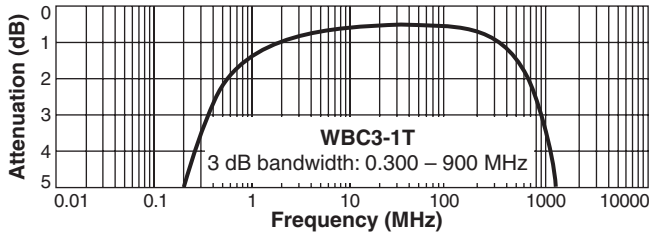
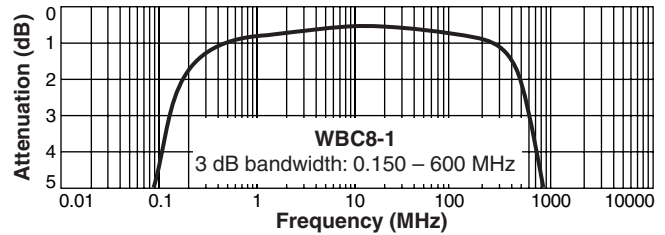
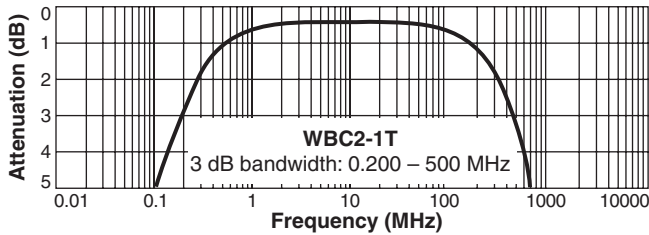
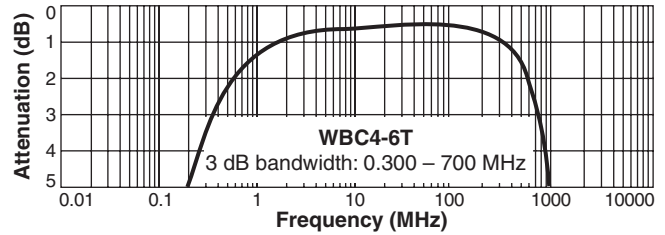
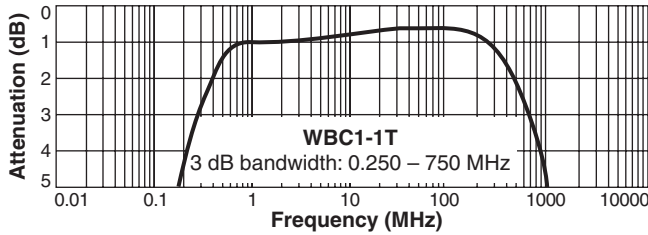
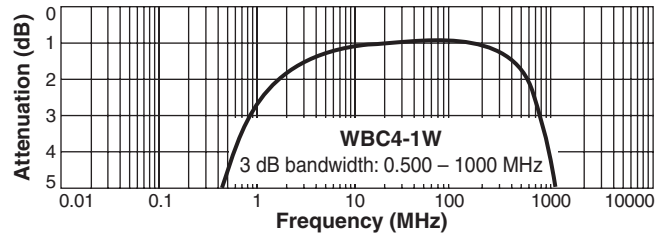
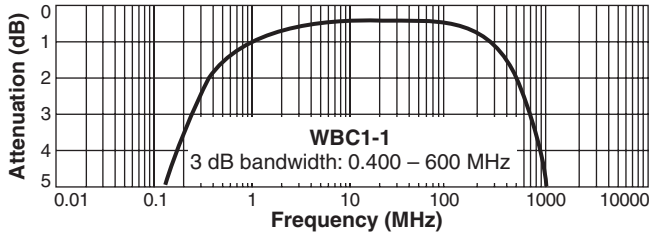
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