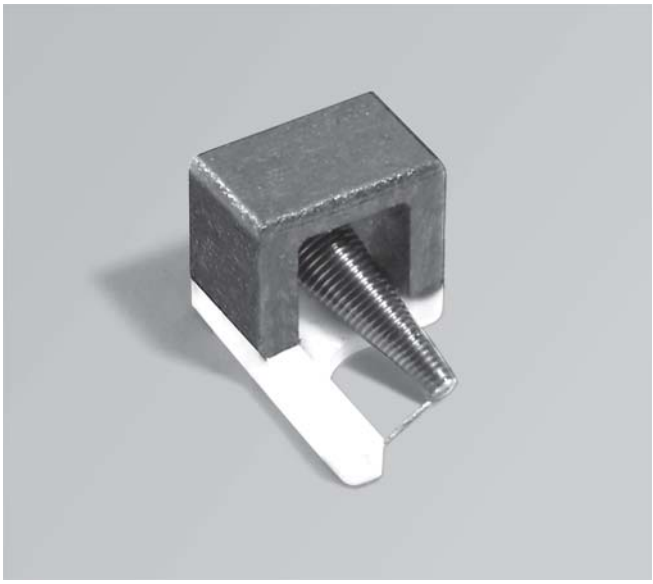
SMT Broadband Conical Inductors



- Designed specifically for broadband and high frequency applications.
- Operates as a series of narrow-band inductors throughout an operating frequency range of 10 MHz to 40 GHz.
- Ideal for use in ultra-wideband bias T's, where the conical inductor provides the path for the DC bias injection or extraction while isolating the power source from the active device.
- Each surface mount inductor has a self positioning mounting bracket.
- For a "flying lead" version that allows adjustment of the mounting angle consider the BCL series

For new designs, consider the BCR as an alternative. The BCR is electrically identical, and has a much more rugged package. It features a full length cover that completely protects the coil and four mounting pads for excellent board adhesion. We will continue to manufacture and support the BCS series indefinitely.

Part number[1]	Inductance[2] ±5% (µH)	DCR max (Ohms)	Irms[3] (mA)
BCS-531JL_	0.53	0.15	830
BCS-122JL_	1.20	1.05	200
BCS-652JL_	6.5	0.70	510
BCS-802JL_	8.0	3.39	150

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

BCS-802JL C

Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape
(BCS-122JL: 500 parts per full reel;
BCS-531JL and BCS-802JL: 300 parts per full reel;
BCS-652JL: 200 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.

2. Inductance measured at 10 MHz, 0.1 Vrms, 0 Adc using an Agilent/HP 16092A fixture in an Agilent/HP 4291A impedance analyzer.
3. Current that causes a 40°C temperature rise from 25°C ambient.
4. Electrical specifications at 25°C.

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

Terminations Tin-silver-copper over silver-platinum-glass frit
Weights BCS-122: 19 mg; BCS-531: 71 mg; BCS-802: 77 mg; BCS-652: 329 mg
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) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging
BCS-122L: 500/7″ reel; 2000/13″ reel Plastic tape: 12 mm wide, 0.36 mm thick, 8 mm pocket spacing, 3.51 mm pocket depth
BCS-531L: 300/7″ reel; 1500/13″ reel Plastic tape: 12 mm wide, 0.36 mm thick, 8 mm pocket spacing, 4.83 mm pocket depth
BCS-652L: 200/7″ reel; 750/13″ reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 6.45 mm pocket depth
BCS-802L: 300/7″ reel; 1500/13″ reel Plastic tape: 12 mm wide, 0.36 mm thick, 8 mm pocket spacing, 4.83 mm pocket depth
PCB washing Only pure water or alcohol recommended

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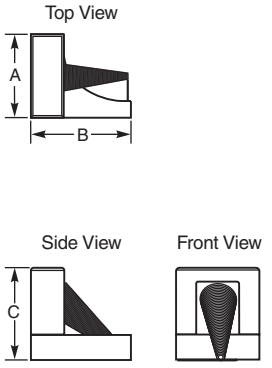
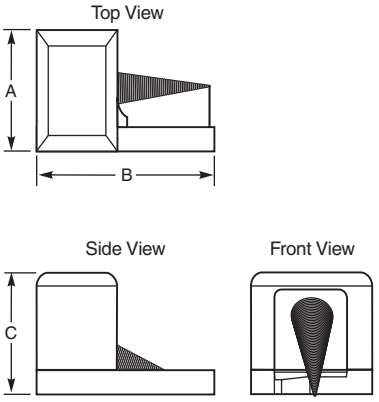
S-Parameter files
ON OUR WEB SITE OR CD

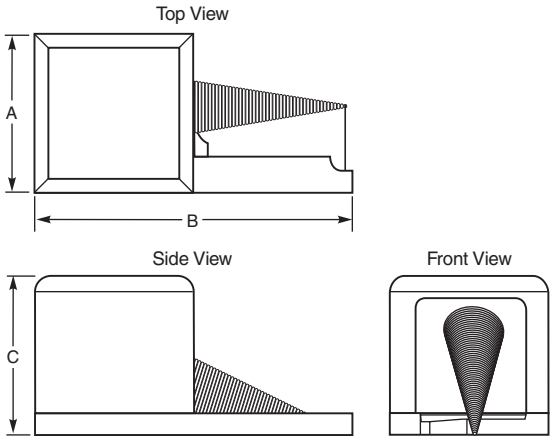
BCS-122



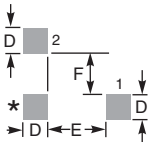
BCS-531, BCS-802



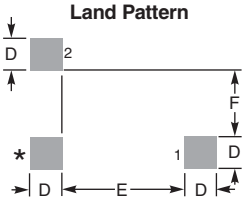
BCS-652



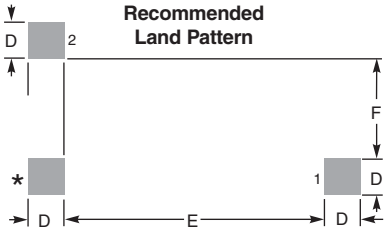
Recommended Land Pattern



Recommended Land Pattern



Recommended Land Pattern

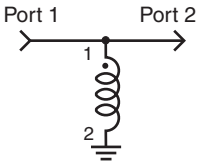


* Pad is for mounting stability only. Do not connect to circuit.

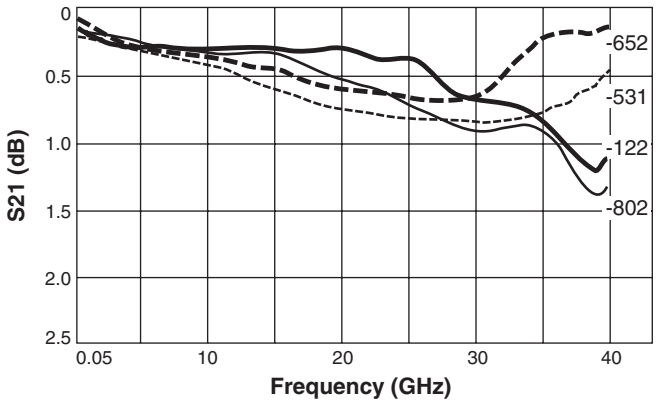
	A	B	C	D	E	F
BCS-531	0.150±0.010/*3,81±0,25*	0.220±0.010/*5,59±0,25*	0.160±0.010/*4,06±0,25*	0.040/*1,02*	0.150/*3,81*	0.080/*2,03*
BCS-122	0.100±0.010/*2,54±0,25*	0.120±0.010/*3,05±0,25*	0.110±0.010/*2,79±0,25*	0.030/*0,76*	0.070/*1,78*	0.050/*1,27*
BCS-652	0.220±0.010/*5,59±0,25*	0.440±0.010/*11,18±0,25*	0.220±0.010/*5,59±0,25*	0.050/*1,27*	0.360/*9,14*	0.140/*3,56*
BCS-802	0.150±0.010/*3,81±0,25*	0.220±0.010/*5,59±0,25*	0.160±0.010/*4,06±0,25*	0.040/*1,02*	0.150/*3,81*	0.080/*2,03*

Dimensions (inches /*millimeters*)

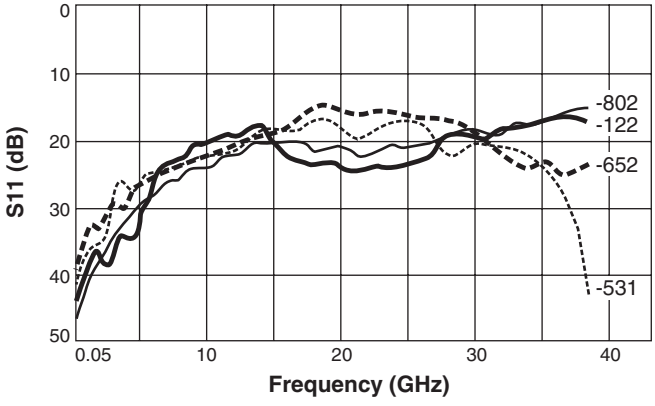
Response curves measured in a bias tee configuration with an Agilent/HP 8722ES network analyzer.



Insertion Loss



Return Loss



Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information. Document 334S-2 Revised 01/29/10

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