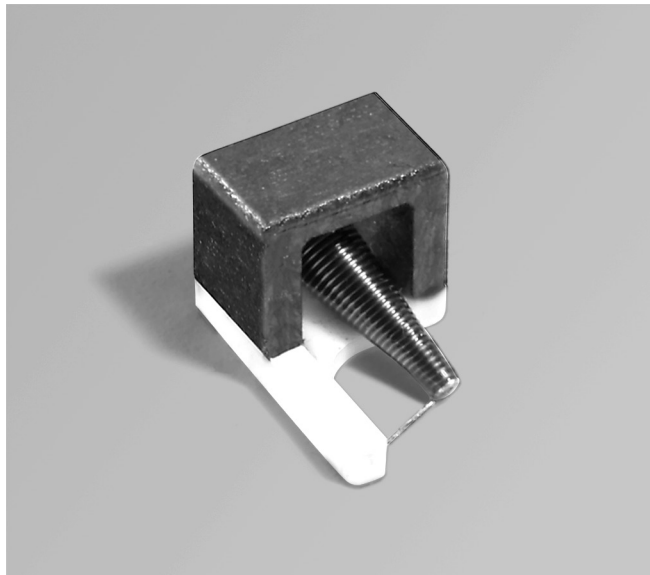




SMT Broadband Conical Inductors



- 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 Tees, 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-802JLC

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 16193A fixture in an Agilent/HP 4287A LCR meter or equivalents.

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 Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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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.



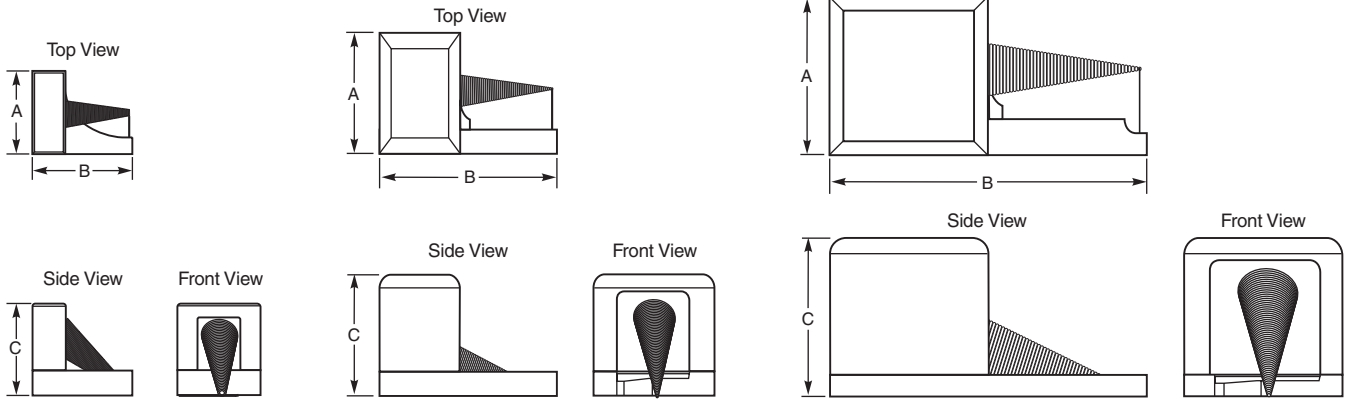
SMT Broadband Conical Inductors

S-Parameter files
ON OUR WEB SITE

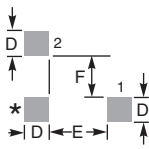
BCS-122

BCS-531, BCS-802

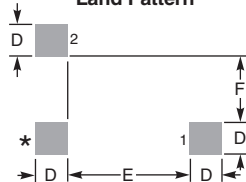
BCS-652



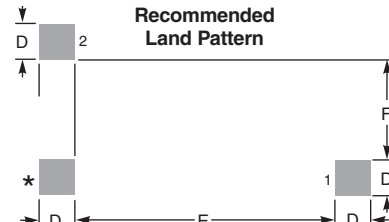
Recommended Land Pattern



Recommended Land Pattern



Recommended Land Pattern

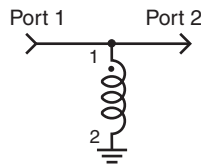


*Pad is for mounting stability only; do not connect to circuit. Connecting to circuit may adversely affect performance.

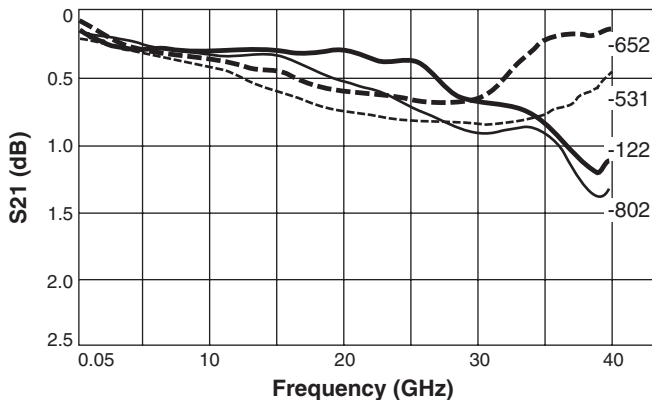
	A	B	C	D	E	F
BCS-531	0.150 ±0.010/3,81±0,25	0.220 ±0.010/5,59 ±0,25	0.160 ±0.010/4,06 ±0,25	0.040/1,02	0.150/3,81	0.080/2,03
BCS-122	0.100 ±0.010/2,54 ±0,25	0.120 ±0.010/3,05 ±0,25	0.110 ±0.010/2,79 ±0,25	0.030/0,76	0.070/1,78	0.050/1,27
BCS-652	0.220 ±0.010/5,59 ±0,25	0.440 ±0.010/11,18 ±0,25	0.220 ±0.010/5,59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

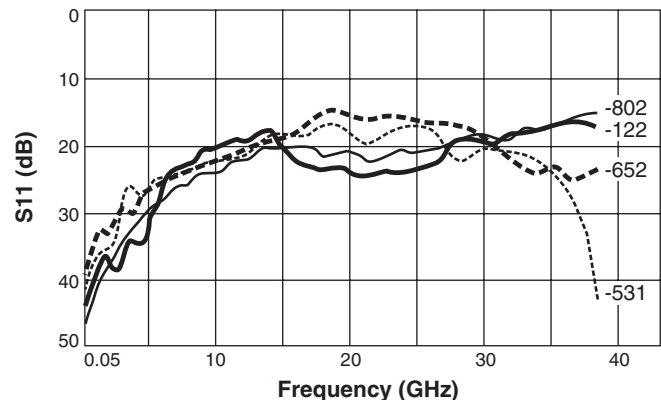
Response curves measured in a bias tee configuration with an Agilent/HP 8722ES network analyzer.



Insertion Loss



Return Loss



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