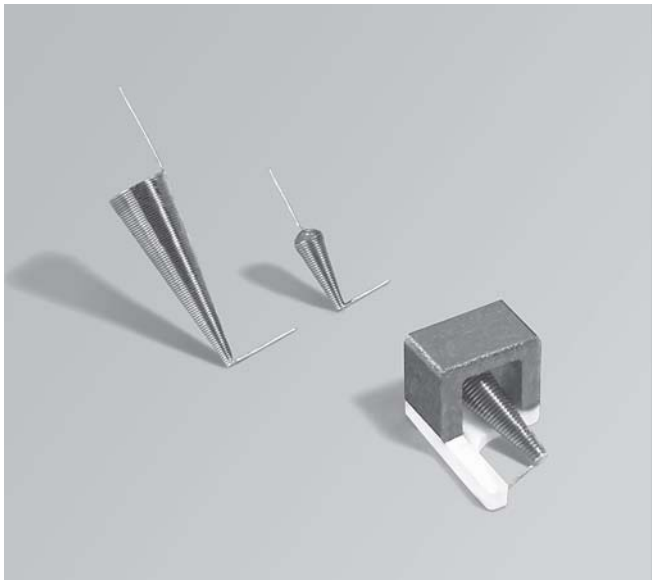
Broadband Conical Inductors



Coilcraft's conical inductors are designed specifically for broadband and high frequency applications. This single component operates as a series of narrow-band inductors throughout an operating frequency range of 10 MHz to 40 GHz.

These conical inductors are ideal for use in ultra-wideband bias T's. In this application, the conical inductor provides the path for the DC bias injection or extraction while isolating the power source from the active device.

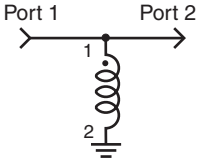
The BCL versions are supplied with "flying leads" that allow adjustment of the mounting angle. Each surface mount BCS inductor has a self positioning mounting bracket.

To request evaluation samples, contact Coilcraft.

S-Parameter files
ON OUR WEB SITE OR CD

Part number		Inductance[2] ±5% (µH)	DCR max (Ohms)	Irms[3] (mA)
Surface mount[1]	Flying lead			
BCS-531JL_	BCL-531JL	0.53	0.15	830
BCS-122JL_	BCL-122JL	1.2	1.05	200
BCS-652JL_	BCL-652JL	6.5	0.70	510
BCS-802JL_	BCL-802JL	8.0	3.39	150

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



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

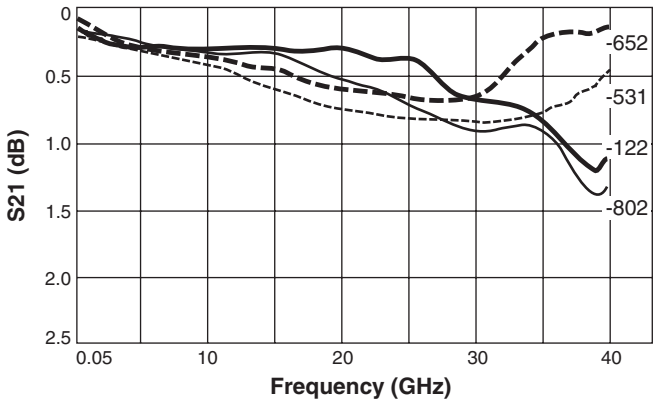
BCS-802JL C

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.

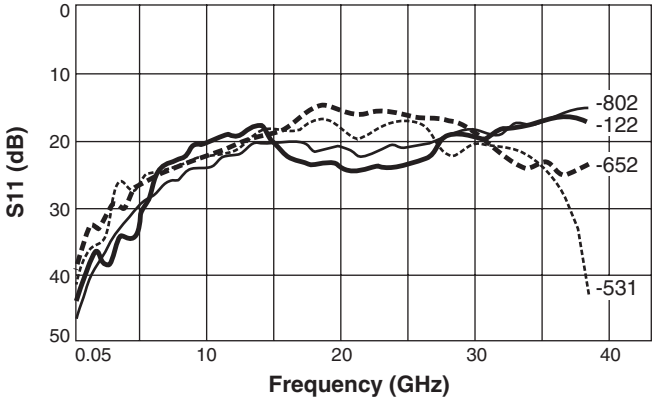
2. Inductance measured at 10 MHz, 0.1 Vrms, 0 Adc using an Agilent/HP 16092A fixture in an Agilent/HP 4291A impedance analyzer.
3. Current that causes a 40°C temperature rise from 25°C ambient.
4. **Ambient temperature range:** –40°C to +85°C
5. **Storage temperature range:** Component: –40°C to +85°C
Packaging: –40°C to +80°C
6. Electrical specifications at 25°C.

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

Insertion Loss (BCL and BCS)



Return Loss (BCL and BCS)



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Specifications subject to change without notice.
Please check our website for latest information. Document 334-1 Revised 10/30/08

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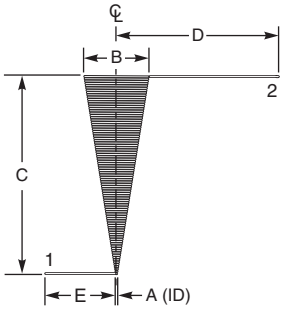
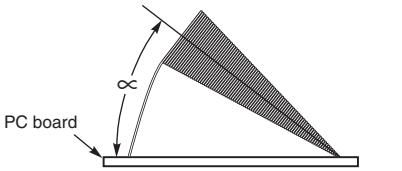
Broadband Conical Inductors

BCL





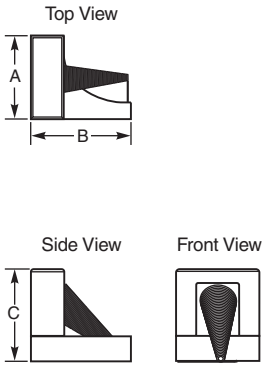
∝ Optimum mounting angle is application specific.

Packaging: 25 per tray
Terminations: Tin-silver over copper
Weights: BCL-531: 20 mg; BCL-122: 6 mg; BCL652: 155 mg; BCL802: 26 mg

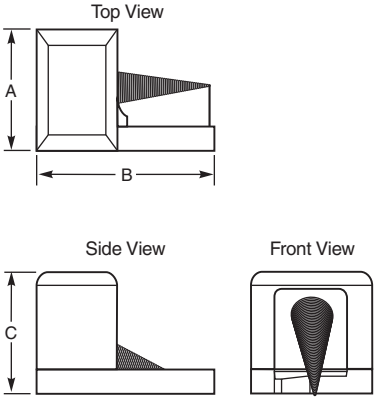
	A	B max	C max	D (±0.010/*2,54*)	E (±0.010/*2,54*)
BCL-531	0.008 ±0.002/*0,20 ±0,05*	0.071/*1,80*	0.179/*4,55*	0.166/*4,22*	0.100/*2,54*
BCL-122	0.008 ±0.002/*0,20 ±0,05*	0.045/*1,14*	0.104/*2,64*	0.166/*4,22*	0.100/*2,54*
BCL-652	0.008 ±0.002/*0,20 ±0,05*	0.140/*3,56*	0.418/*10,62*	0.390/*9,91*	0.100/*2,54*
BCL-802	0.008 ±0.002/*0,20 ±0,05*	0.074/*1,88*	0.225/*5,72*	0.180/*4,57*	0.100/*2,54*

Dimensions (inches/*millimeters*)

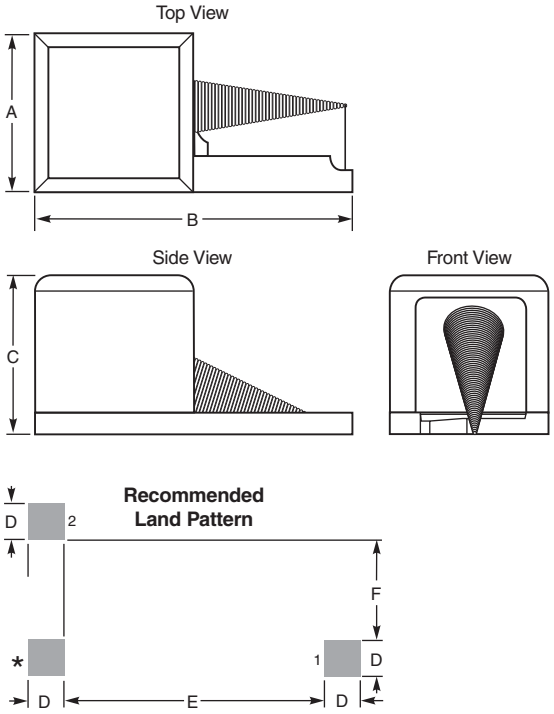
BCS-122



BCS-531, BCS-802



BCS-652



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

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

	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*)

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