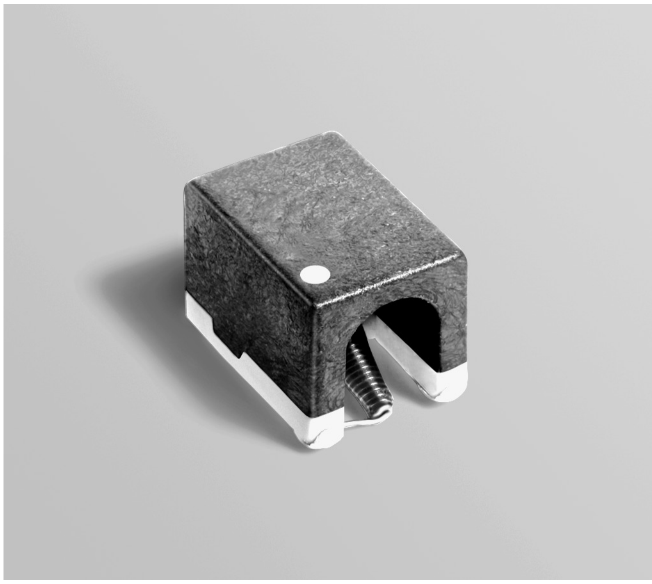
RoHS/ REACH COMPLIANT

SMT Broadband Conical Inductors



- Full-length cap fully protects the coil and provides a large surface for pick and place.
- The self positioning mounting bracket has four soldered pads for excellent board adhesion.
- 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.
- For a "flying lead" version that allows adjustment of the mounting angle consider the BCL series

Part number[1]	Inductance[2] ±5% (µH)	DCR max (Ohms)	Irms[3] (mA)
BCR-221JL_	0.22	0.10	1200
BCR-531JL_	0.53	0.15	1060
BCR-122JL_	1.20	1.05	270
BCR-162JL_	1.65	0.60	490
BCR-232JL_	2.35	1.61	270
BCR-272JL_	2.75	0.40	675
BCR-632JL_	6.35	0.92	480
BCR-652JL_	6.50	0.70	650
BCR-802JL_	8.00	3.39	230

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

   BCR-802JLC

   Termination: L = Tin-silver-copper over silver-platinum-glass frit
   Special order, added cost:
   S = Tin-lead over silver-platinum-glass frit

   Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

   B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
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 Other terminations available at additional cost.

Weights BCR-122: 34 mg
BCR-221, BCR-162, BCR-232, BCR-531: 101 mg
BCR-272, BCR-632, BCR-652: 472 mg
BCR-802: 107 mg

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C. Tape and reel 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)

Packaging
BCR-122:
500/7″ reel; 2000/13″ reel Plastic tape: 12 mm wide, 0.36 mm thick, 8 mm pocket spacing, 3.51 mm pocket depth
BCR-162, BCR-221, BCR-232, BCR-531, BCR-802:
300/7″ reel; 1500/13″ reel Plastic tape: 12 mm wide, 0.36 mm thick, 8 mm pocket spacing, 4.83 mm pocket depth
BCR-272, BCR-632, BCR-652:
200/7″ reel; 750/13″ reel Plastic tape: 24 mm wide, 0.33 mm thick, 12 mm pocket spacing, 6.45 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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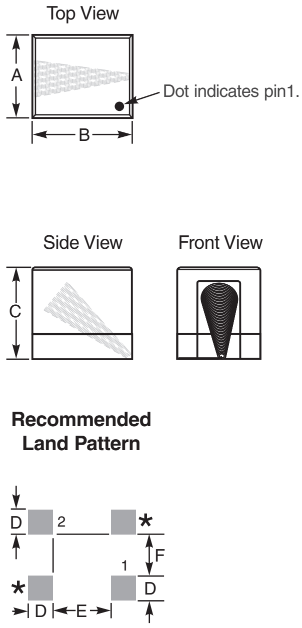
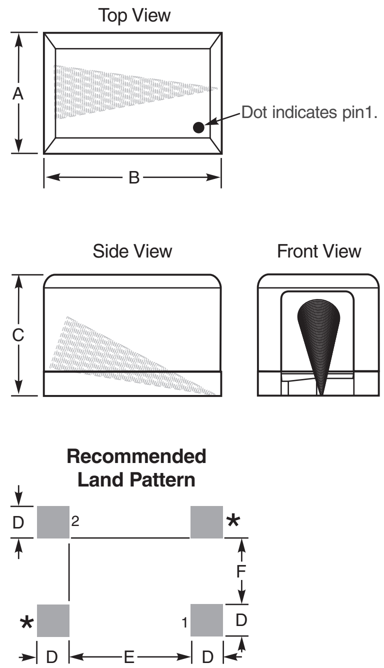
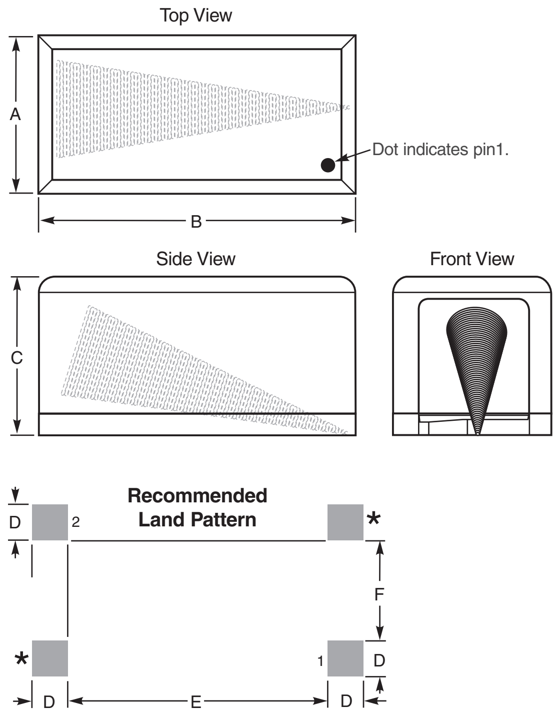
BCR-122



BCR-162, -221, -232, -531, -802



BCR-272, -632, -652



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

	A	B	C	D	E	F
BCR-122	0.105 ±0.010/*2,67 ±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*
BCR-162, -221, -232, -531, -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*
BCR-272, -632, -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*

Dimensions (inches/*millimeters*)

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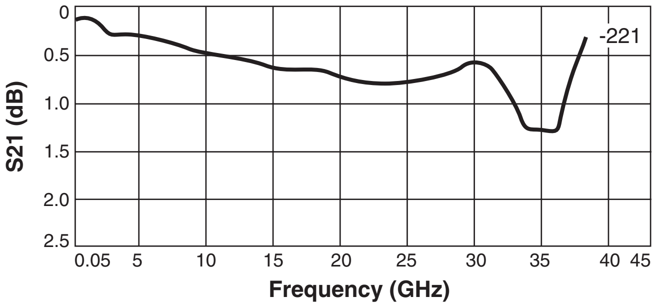
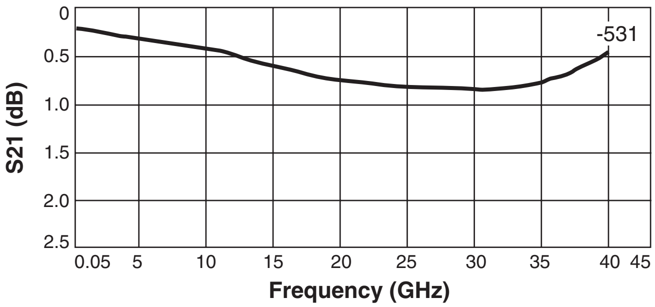
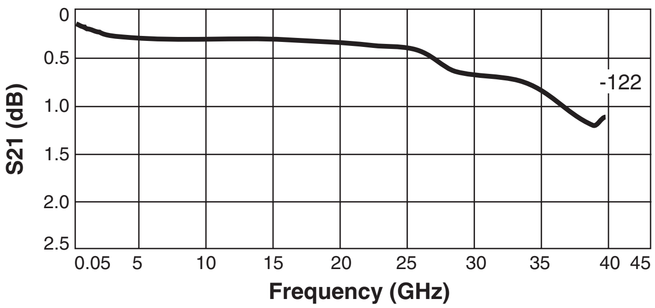
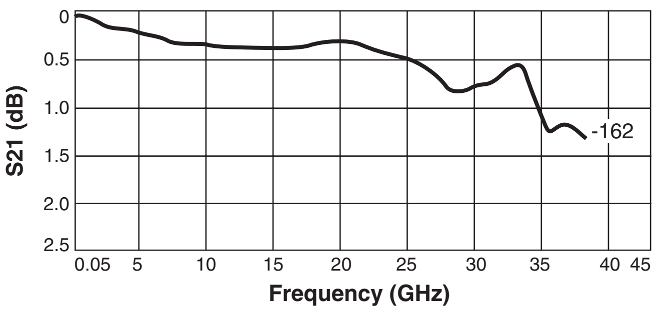
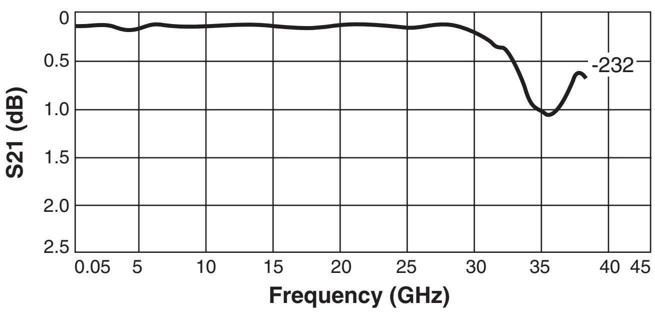
Insertion Loss



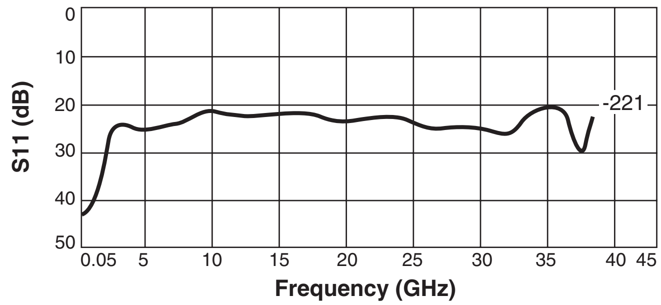


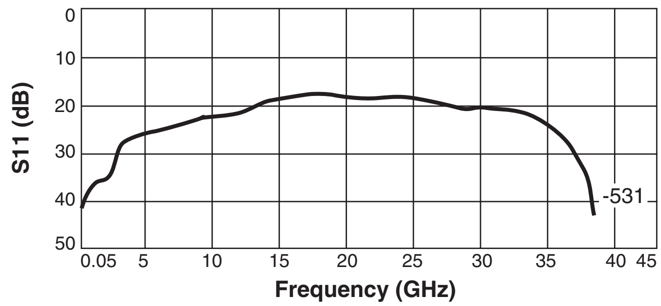


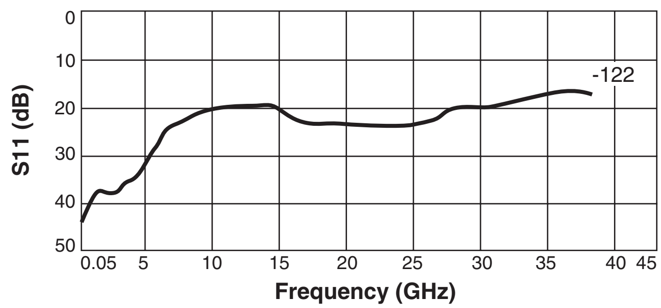


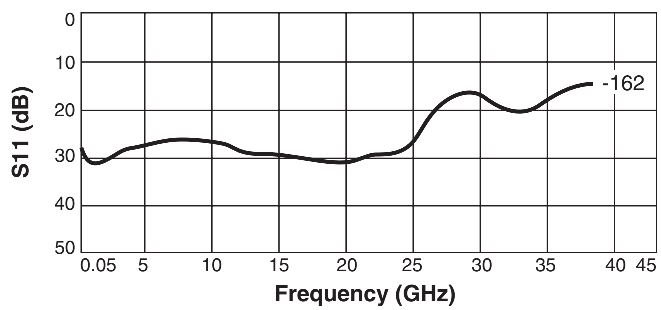


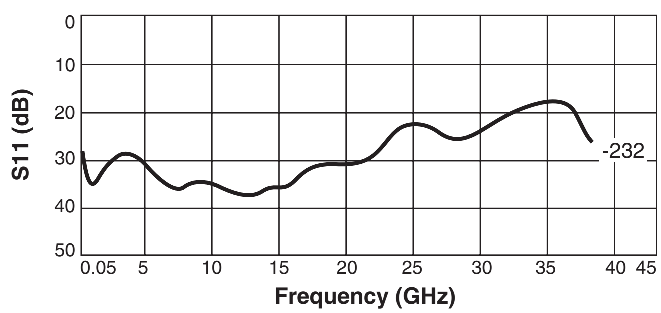
Return Loss











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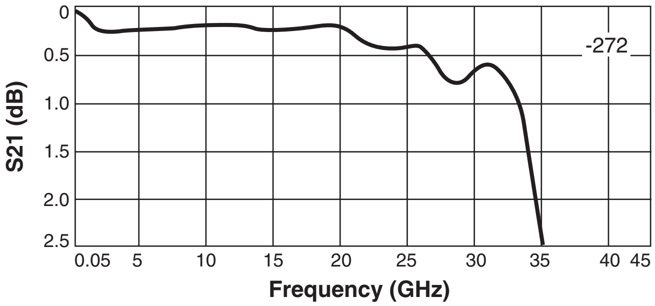
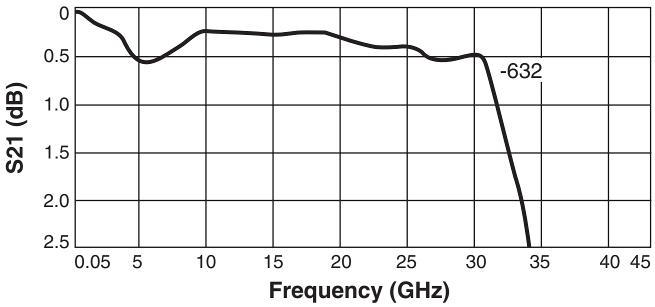
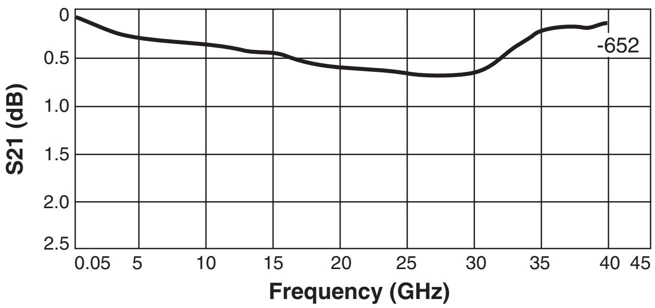
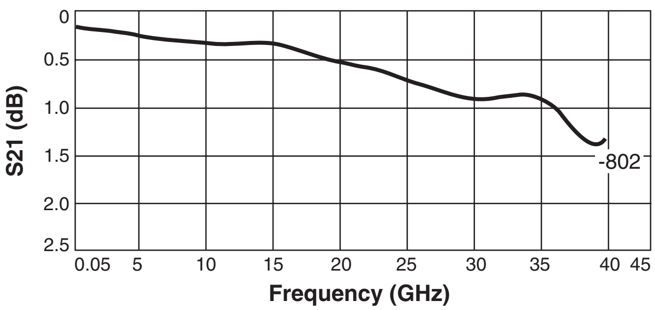
Insertion Loss

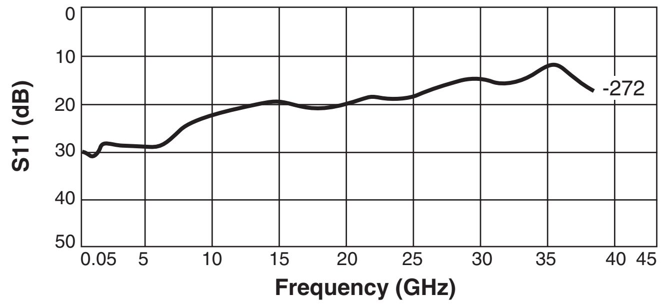


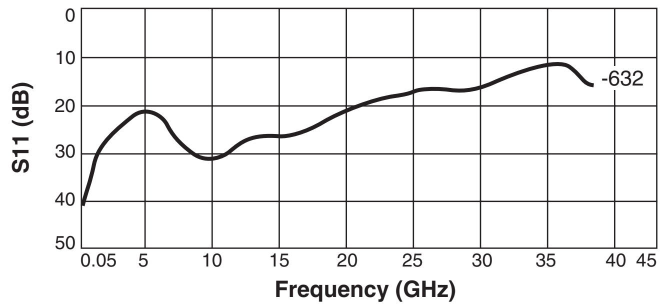


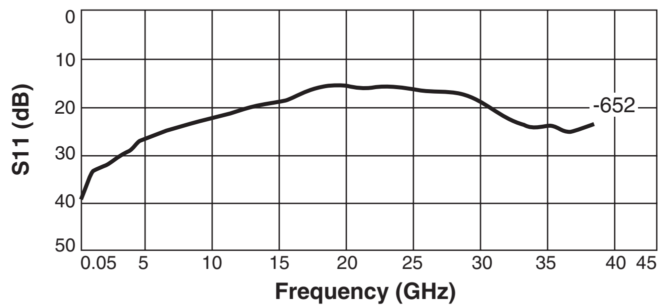


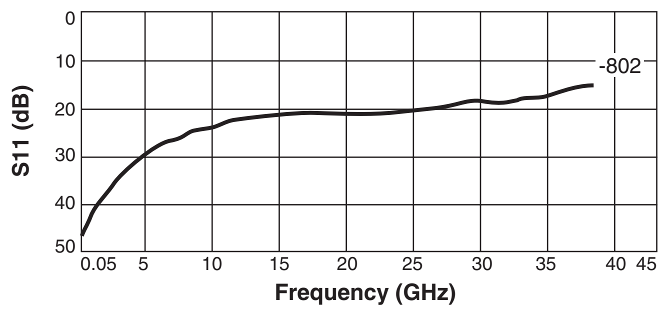


Return Loss









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