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 up 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.
- Supplied with “flying leads” that allow adjustment of the mounting angle.
- For a surface mount version with a self positioning mounting bracket, consider the BCR series.

**Terminations** Tin-silver-copper (96.5/3/0.5) over copper

**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

**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**
- 25 per tray

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

### Part Number Inductance\(^1\) ±5% (μH) DCR max (Ohms) Irms\(^2\) (mA) Weight mg

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance</th>
<th>DCR max</th>
<th>Irms</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCL-221JL</td>
<td>0.22</td>
<td>0.10</td>
<td>1200</td>
<td>10.2</td>
</tr>
<tr>
<td>BCL-531JL</td>
<td>0.53</td>
<td>0.15</td>
<td>1060</td>
<td>19.8</td>
</tr>
<tr>
<td>BCL-122JL</td>
<td>1.20</td>
<td>1.05</td>
<td>270</td>
<td>5.1</td>
</tr>
<tr>
<td>BCL-162JL</td>
<td>1.65</td>
<td>0.60</td>
<td>490</td>
<td>17.1</td>
</tr>
<tr>
<td>BCL-232JL</td>
<td>2.35</td>
<td>1.61</td>
<td>270</td>
<td>8.5</td>
</tr>
<tr>
<td>BCL-272JL</td>
<td>2.75</td>
<td>0.40</td>
<td>675</td>
<td>67.2</td>
</tr>
<tr>
<td>BCL-632JL</td>
<td>6.35</td>
<td>0.92</td>
<td>480</td>
<td>81.0</td>
</tr>
<tr>
<td>BCL-652JL</td>
<td>6.50</td>
<td>0.70</td>
<td>650</td>
<td>151</td>
</tr>
<tr>
<td>BCL-802JL</td>
<td>8.00</td>
<td>3.39</td>
<td>230</td>
<td>25.3</td>
</tr>
</tbody>
</table>

1. Inductance measured at 10 MHz, 0.1 Vrms, 0 A dc using an Agilent/ HP 4286A LCR meter and a Coilcraft CCF 1111 fixture.

2. Current that causes a 40°C rise from 25°C ambient.

3. Electrical specifications at 25°C.

### Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>A max</th>
<th>B max</th>
<th>C max</th>
<th>D max</th>
<th>E max</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (ID)</td>
<td>0.87</td>
<td>1.61</td>
<td>0.87</td>
<td>1.61</td>
<td>0.87</td>
</tr>
</tbody>
</table>

**Irms Derating**

- Percent of rated Irms
- Ambient temperature (°C)

**PCB board**

Optimum mounting angle is application specific.

---

Coilcraft

www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 334L-1 Revised 06/27/13

© Coilcraft Inc, 2015

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.
Broadband Conical Inductors

Insertion Loss

Return Loss
Broadband Conical Inductors

Insertion Loss

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

Return Loss

Port 1

Port 2