High Current Air Core Inductors

The use of heavy gauge wire allows these parts to have the lowest DCR and highest current ratings of our air-core inductors. They offer Q values over 100 from 100 MHz to 1 GHz.

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance ±5% (nH) typ</th>
<th>Q typ</th>
<th>SRF typ3 (GHz)</th>
<th>DCR max4 (mOhm)</th>
<th>I rms5 (A)</th>
<th>Wt5 (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA3092-AL</td>
<td>3.7</td>
<td>120</td>
<td>17.5</td>
<td>2.0</td>
<td>7.0</td>
<td>150</td>
</tr>
<tr>
<td>GA3093-AL</td>
<td>6.6</td>
<td>107</td>
<td>5.8</td>
<td>2.0</td>
<td>7.0</td>
<td>220</td>
</tr>
<tr>
<td>GA3094-AL</td>
<td>12.0</td>
<td>105</td>
<td>2.4</td>
<td>2.0</td>
<td>7.0</td>
<td>280</td>
</tr>
<tr>
<td>GA3095-AL</td>
<td>17.5</td>
<td>115</td>
<td>2.2</td>
<td>2.0</td>
<td>7.0</td>
<td>390</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   GA3095-AL C

   Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape (250 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.
   D = 13″ machine-ready reel. EIA-481 embossed plastic tape (1000 parts per full reel). Factory order only, not stocked.

2. L and Q measured at 150 MHz, 0.1 Vrms, 0 A using an Agilent/HP 4291A impedance analyzer with an Agilent/HP 16193A test fixture.

3. SRF measured using an Agilent/HP 8722ES network analyzer and a Coilcraft SMD-D test fixture.

4. DCR measured using a micro-ohmmeter.

5. Current that causes a 15°C temperature rise from 25°C ambient.

6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Terminations RoHS compliant tin-silver (96.5/3.5) over copper

Ambient temperature –40°C to +125°C with Irms current, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°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

Temperature Coefficient of Inductance (TCL) +5 to +70 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Mean Time Between Failures (MTBF) 1 billion hours

Packaging 250/7″ reel; 1000/13″ reel Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 4.9 mm pocket depth

PCB washing Only pure water or alcohol recommended

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**L vs Frequency**

![Graph showing inductance vs frequency for different values of inductance.

**Q vs Frequency**

![Graph showing Q factor vs frequency for different values of inductance.

**Irms Derating**

![Graph showing percent of rated Irms vs ambient temperature for different values of inductance.

**Recommended Land Patterns**

[Images of the recommended land patterns for different models of inductors with dimensions in inches and millimeters.]