Micro Spring™ Air Core Inductors

- Small air core inductors feature high Q and tight tolerances
- Acrylic jacket provides a flat top for pick and place
- Solder coated leads ensure reliable soldering

**Terminations**  RoHS compliant tin-silver over copper Other terminations available at additional cost.

**Weight**  0906: 10–12 mg; 1606: 18 – 27 mg

**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.

**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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**
One per billion hours / one billion hours, calculated per Telcordia SR-332

**Packaging**  0906: 500 per 7” reel Plastic tape: 8 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.5 mm pocket depth
1606: 500 per 7” reel Plastic tape: 12 mm wide, 0.3 mm thick, 4 mm pocket spacing, 1.6 mm pocket depth

**PCB washing**  Only pure water or alcohol recommended

---

### Table: Micro Spring™ Air Core Inductors

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns</th>
<th>L² (nH)</th>
<th>Percent tol</th>
<th>Q' min</th>
<th>SRF</th>
<th>DCR max</th>
<th>Irms</th>
</tr>
</thead>
<tbody>
<tr>
<td>0906-2KL_2</td>
<td>2</td>
<td>1.65</td>
<td>10</td>
<td>10.0</td>
<td>4.0</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>0906-3_L_3</td>
<td>3</td>
<td>2.55</td>
<td>5.2,1</td>
<td>100</td>
<td>8.2</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>0906-4_L_4</td>
<td>4</td>
<td>3.85</td>
<td>5.2,1</td>
<td>100</td>
<td>7.5</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>0906-5_L_5</td>
<td>5</td>
<td>5.40</td>
<td>5.2,1</td>
<td>100</td>
<td>7.0</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>1606-6_L_6</td>
<td>6</td>
<td>5.60</td>
<td>5.2,1</td>
<td>100</td>
<td>6.5</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>1606-7_L_7</td>
<td>7</td>
<td>7.15</td>
<td>5.2,1</td>
<td>100</td>
<td>6.0</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>1606-8_L_8</td>
<td>8</td>
<td>8.80</td>
<td>5.2,1</td>
<td>100</td>
<td>6.0</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>1606-9_L_9</td>
<td>9</td>
<td>9.85</td>
<td>5.2,1</td>
<td>100</td>
<td>5.2</td>
<td>13.1</td>
<td></td>
</tr>
<tr>
<td>1606-10_L_10</td>
<td>10</td>
<td>12.55</td>
<td>5.2,1</td>
<td>100</td>
<td>6.1</td>
<td>14.1</td>
<td></td>
</tr>
</tbody>
</table>

1. When ordering, specify tolerance, termination and packaging codes:

   **1606-10GLC**

   **Tolerance:**  F = 1%; G = 2%; J = 5%; K = 10% (Table shows stock tolerances in bold.)
   **Termination:**  L = RoHS compliant tin-silver (96.5/3.5) over copper. Special order: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
   **Packaging:**  C = 7” machine-ready reel. EIA-481 embossed plastic tape, 500 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 800 MHz using Agilent/HP 4286 or equivalent with a Coilcraft SMD-A fixture and correlation.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured at 800 MHz using an Agilent/HP 4291A with an Agilent/HP 16193A test fixture or equivalents.
5. SRF measured using an Agilent/HP 8720D or equivalent with a Coilcraft SMD-D fixture.
6. DCR tested on the Cambridge Technology Model 510 Micro-ohmmeter or equivalent.
7. Current that causes a 15°C temperature rise from 25°C ambient.
8. Electrical specifications at 25°C.

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

---

**Dimensions are in inches mm**
Micro Spring™ Air Core Inductors

Typical L vs Frequency – 0906 Series

Typical L vs Frequency – 1606 Series

Typical Q vs Frequency – 0906 Series

Typical Q vs Frequency – 1606 Series

Typical Irms Derating

Designer's Kit C308 contains 12 each of all values.
Designer's Kit C308-2 contains 12 each of all 2% values.