## Shielded Power Inductors – SER1052

- High current, low DCR shielded power inductors
- 10.2 × 11 mm base; only 5.2 mm tall

**Designer’s Kit C421** contains 3 of each value

**Core and winding loss**  See www.coilcraft.com/coreloss

**Core material**  Ferrite

**Terminations**  RoHS compliant tin-silver-copper over tin over nickel over phos-bronze (pins 1 and 2); matte tin over nickel over phos-bronze (pin 3). Other terminations available at additional cost.

**Weight**  1.6 g

**Ambient temperature**  -40°C to +85°C with (40°C rise) Irms current.

**Maximum part temperature**  +125°C (ambient + temp rise). Derating.

**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**  200/7” reel; 700/13” reel Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 5.45 mm pocket depth

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

### Inductance, DCR, SRF and Isat vs. Temperature

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (µH)</th>
<th>DCR max (mOhm)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SER1052-801ML</td>
<td>0.80</td>
<td>4.0</td>
<td>100</td>
<td>24.9</td>
<td>12.5</td>
</tr>
<tr>
<td>SER1052-102ML</td>
<td>1.00</td>
<td>4.3</td>
<td>65</td>
<td>16.7</td>
<td>12.5</td>
</tr>
<tr>
<td>SER1052-122ML</td>
<td>1.20</td>
<td>6.0</td>
<td>59</td>
<td>16.7</td>
<td>12.5</td>
</tr>
<tr>
<td>SER1052-132ML</td>
<td>1.30</td>
<td>4.0</td>
<td>61</td>
<td>16.7</td>
<td>12.5</td>
</tr>
<tr>
<td>SER1052-152ML</td>
<td>1.50</td>
<td>4.0</td>
<td>75</td>
<td>16.7</td>
<td>12.5</td>
</tr>
</tbody>
</table>

1. Please specify **termination** and **packaging** codes:

**SER1052-572MLD**

- **Termination:** L = RoHS compliant tin-silver-copper over tin over nickel over phos-bronze (pins 1 and 2); matte tin over nickel over phos-bronze (pin 3).
- **Special order:**  
  - T = RoHS tin-silver-copper over 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 (200 parts per full reel). 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.
  - D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (700 parts per full reel)

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 A dc on an Agilent/HP 4284A or equivalent.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.

5. DC current at 25°C that causes the specified inductance drop from its value without current. **Click for temperature derating information.**

6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. **Click for temperature derating information.**

7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Shielded Power Inductors - SER1052 Series

Typical L vs Frequency

Typical L vs Current

Prior to 2012, parts may have been marked differently.

Terminal 3 is for mounting stability only.

Recommended Land Pattern

Dimensions are in inches/mm.

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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.