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 reflos at +260°C, parts cooled to room temperature between cycles
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 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

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance ±20% (μH)</th>
<th>DCR max3 (mOhm)</th>
<th>SRF typ4 (MHz)</th>
<th>Isat (A)5</th>
<th>Irms(A)6</th>
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<tbody>
<tr>
<td></td>
<td>10% drop</td>
<td>20% drop</td>
<td>30% drop</td>
<td>20°C rise</td>
<td>40°C rise</td>
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<tr>
<td>SER1052-801ML</td>
<td>0.80</td>
<td>4.0</td>
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<td>17.0</td>
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</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.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc 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

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
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Specification subject to change without notice
Please check web site for latest information

RoHS/REACH Compliant
AEC-Q200 85°C

Shielded Power Inductors - SER1052 Series

Inductance (µH)

Frequency (MHz)

Current (A)

Inductance (µH)

Current (A)