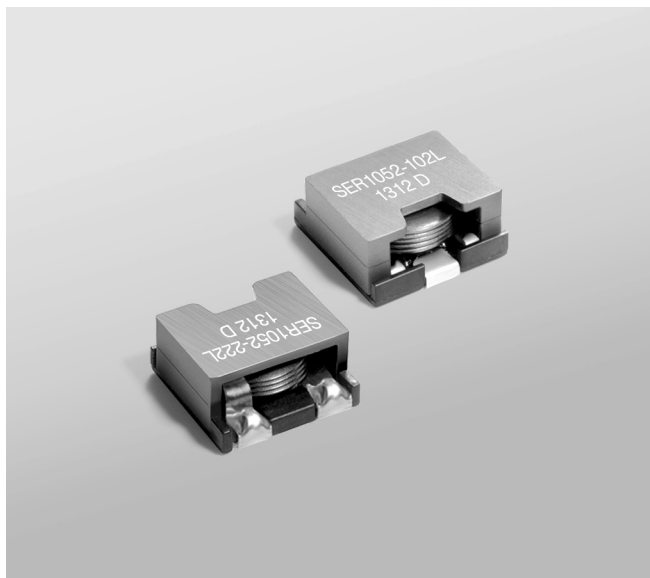


Shielded Power Inductors – SER1052



- 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 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)

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](#).

| Part number ¹ | Inductance ±20% ² (µH) | DCR max ³ (mOhm) | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms(A) ⁶ | |
|--------------------------|---|-----------------------------------|----------------------------------|-----------------------|-------------|-------------|----------------------|--------------|
| | | | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| SER1052-801ML_ | 0.80 | 4.0 | 100 | 24.9 | 25.2 | 25.6 | 12.5 | 16.3 |
| SER1052-102ML_ | 1.0 | 4.0 | 95 | 16.5 | 17.0 | 17.5 | 12.5 | 16.3 |
| SER1052-122ML_ | 1.2 | 6.0 | 91 | 20.5 | 21.0 | 21.3 | 11.0 | 15.0 |
| SER1052-132ML_ | 1.3 | 4.0 | 81 | 12.9 | 16.8 | 17.2 | 12.5 | 16.3 |
| SER1052-152ML_ | 1.5 | 4.0 | 75 | 13.5 | 14.0 | 14.5 | 11.0 | 15.0 |
| SER1052-182ML_ | 1.8 | 6.0 | 70 | 13.3 | 13.8 | 14.3 | 11.0 | 15.0 |
| SER1052-202ML_ | 2.0 | 9.0 | 65 | 15.3 | 15.8 | 16.2 | 8.5 | 11.5 |
| SER1052-222ML_ | 2.2 | 4.0 | 58 | 8.9 | 9.6 | 10.0 | 12.5 | 16.3 |
| SER1052-252ML_ | 2.5 | 7.5 | 55 | 11.4 | 11.8 | 12.1 | 9.0 | 12.0 |
| SER1052-322ML_ | 3.2 | 6.0 | 53 | 7.3 | 7.8 | 8.5 | 11.0 | 15.0 |
| SER1052-402ML_ | 4.0 | 9.0 | 47 | 8.3 | 8.5 | 8.8 | 8.5 | 11.5 |
| SER1052-432ML_ | 4.3 | 7.5 | 44 | 6.4 | 6.8 | 7.0 | 9.0 | 12.0 |
| SER1052-572ML_ | 5.7 | 9.0 | 35 | 5.4 | 5.8 | 6.0 | 8.5 | 11.5 |

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

SER1052-572MLD

Termination: L = RoHS compliant tin-silver over copper (pins 1 and 2); matte tin over nickel over phos bronze (pin 3).

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 (200 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. Factory order only, not stocked (700 parts per full reel)

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.



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Document 535-1 Revised 09/09/15

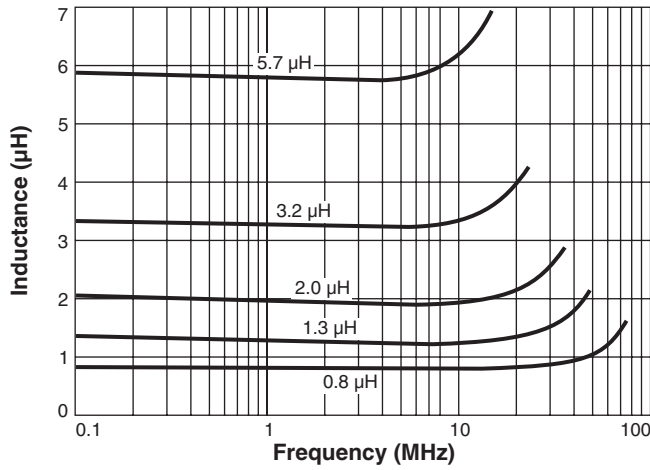
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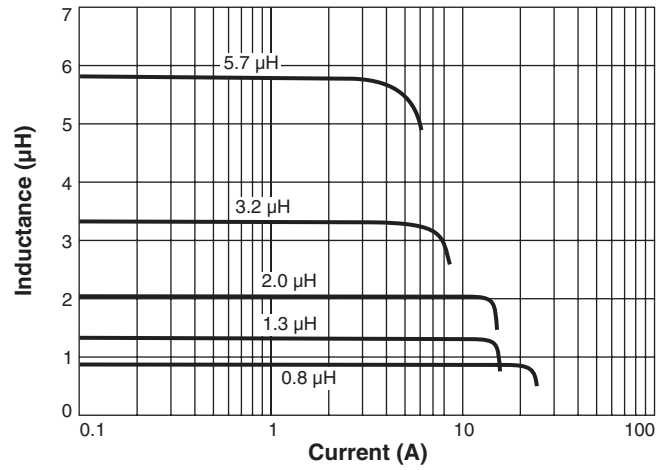


Shielded Power Inductors - SER1052 Series

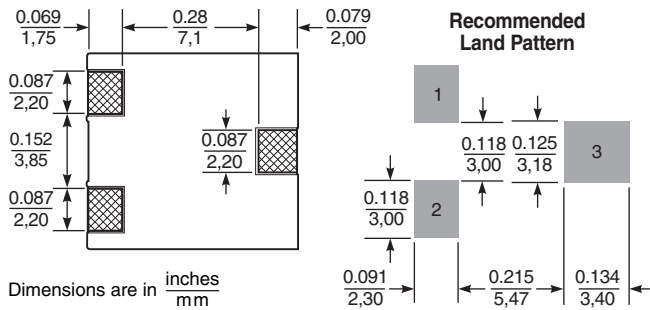
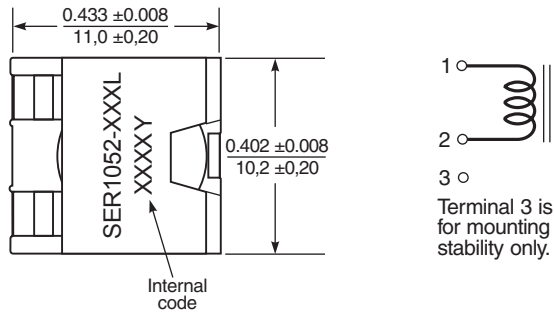
Typical L vs Frequency



Typical L vs Current



Prior to 2012, parts may have been marked differently



Dimensions are in inches / mm



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