

**NEW!**

# SMT Power Inductors - SER1052 Series



- High current, low DCR shielded power inductors
- Less than 11 × 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](http://www.coilcraft.com/coreloss)

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over copper (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 I<sub>rms</sub> current, +85°C to +125°C with derated current

**Storage temperature** Component: -40°C to +125°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

**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** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance ±20% <sup>2</sup> (µH)	DCR max <sup>3</sup> (mOhm)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			I <sub>rms</sub> (A) <sup>6</sup>	
				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	6.0	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:

SER1052-572ML D

**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)

- Inductance measured at 100 kHz, 0.1 V<sub>rms</sub>, 0 Adc on an Agilent/HP 4284A or equivalent.
- DCR measured on a micro-ohmmeter.
- SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

Document 535-1 Revised 01/19/09

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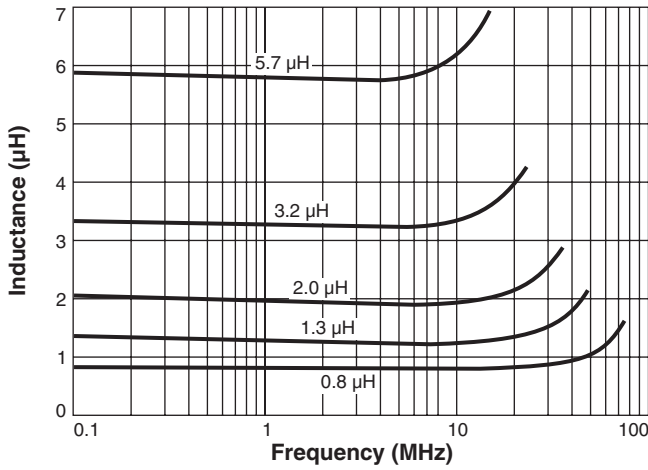
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



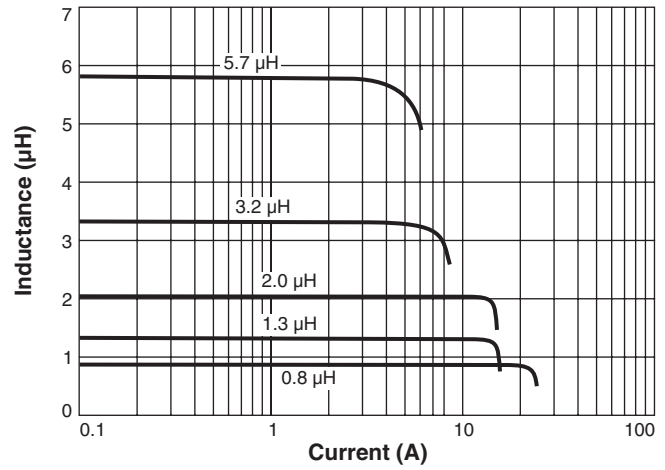
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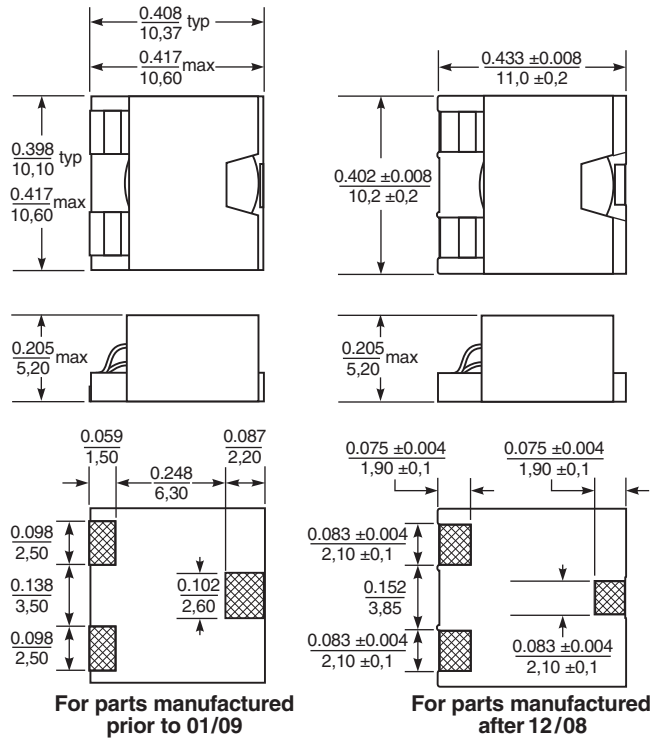
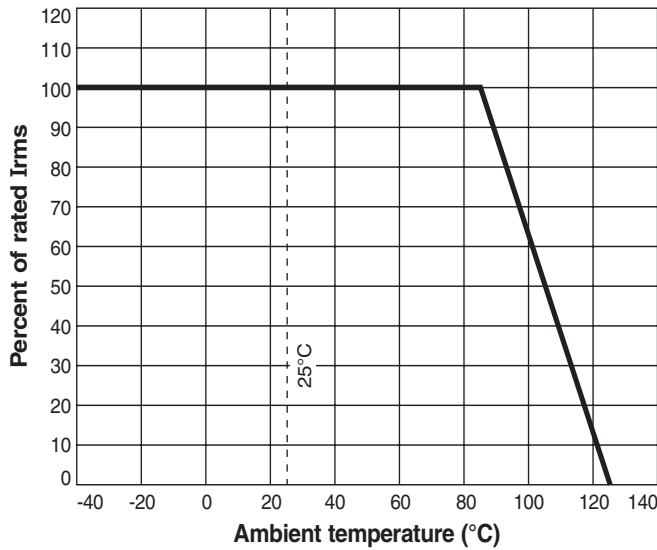
## Typical L vs Frequency



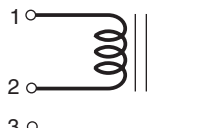
## Typical L vs Current



## Irms Derating



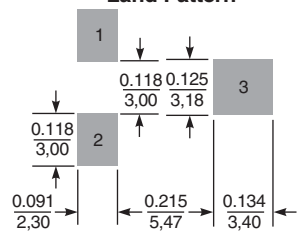
Visit <http://coilcraft.com/datecode.cfm> for an explanation of date codes.



Terminal 3 is for mounting stability only.

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

### Recommended Land Pattern



Specifications subject to change without notice. Please check our website for latest information.

Document 535-2 Revised 01/19/09

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