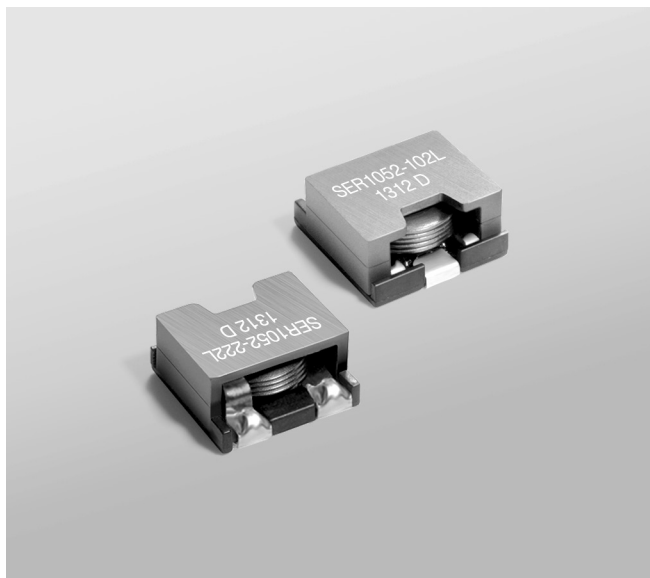


# Shielded Power Inductors – SER1052



- 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](http://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 <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>			Irms(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	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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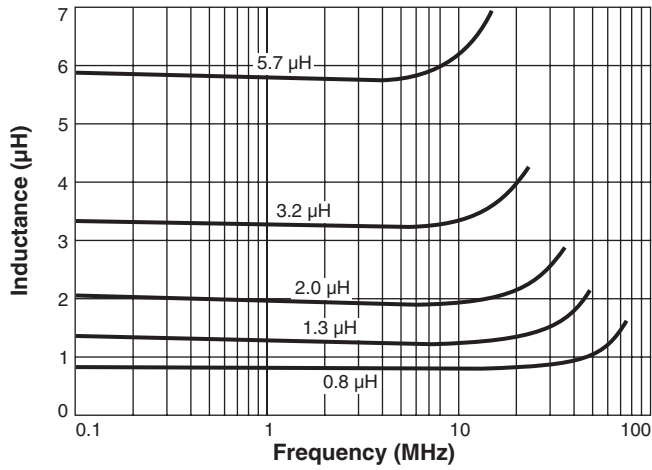
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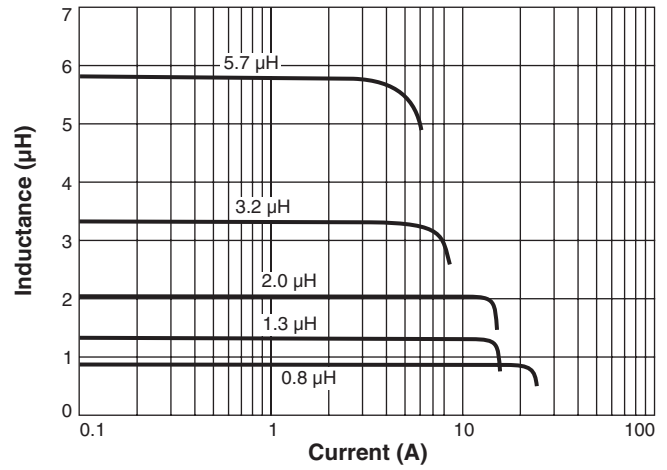


# Shielded Power Inductors - SER1052 Series

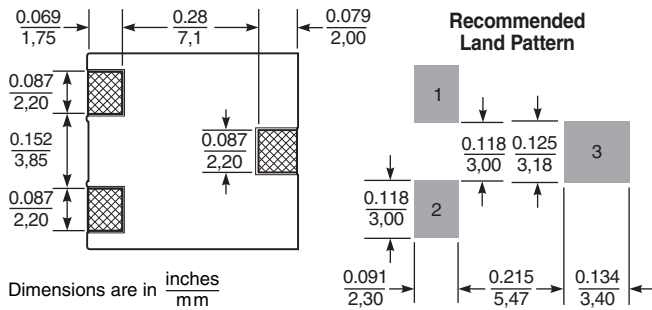
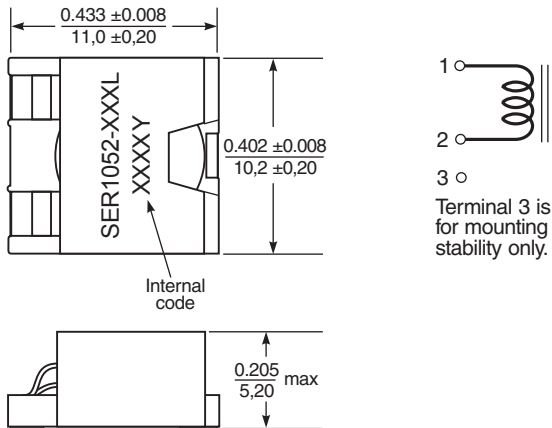
## Typical L vs Frequency



## Typical L vs Current



Prior to 2012, parts may have been marked differently



Dimensions are in inches / mm



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