

# Shielded Power Inductors – SER1360



The SER1360 series provides exceptionally high current carrying capability (up to 43 Amps) and very low DC resistance, all in a low profile, small footprint package.

The part's magnetic shielding and 13 × 13 mm base allow high density mounting while the flat wire winding keeps the overall height to just 6 mm.

In addition to the standard values show, custom values are available to meet specific applications.

Part number <sup>1</sup>	Inductance <sup>2</sup> ±10% (µH)	DCR (mOhm) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
SER1360-331KL_	0.33	0.77	0.85	200	36	41	43	13.0	16.9
SER1360-651KL_	0.65	0.77	0.85	160	23	27	28	13.0	16.9
SER1360-102KL_	1.0	2.36	2.60	75	32	33	33.5	9.5	13.0
SER1360-182KL_	1.8	2.36	2.60	50	17	19	20	9.5	13.0
SER1360-272KL_	2.7	2.36	2.60	42	12	13	14	9.5	13.0
SER1360-402KL_	4.0	5.50	6.05	34	11	12	13	7.1	9.4
SER1360-472KL_	4.7	5.50	6.05	32	9.5	11	12	7.1	9.4
SER1360-602KL_	6.0	5.50	6.05	28	8.0	9.0	9.5	7.1	9.4
SER1360-802KL_	8.0	9.83	10.81	26	7.5	8.5	9.0	5.5	7.6
SER1360-103KL_	10	9.83	10.81	24	6.2	7.0	7.5	4.4	7.2

1. When ordering, please specify **termination** and **packaging** codes:

### SER1360-103KLD

**Termination:** L = RoHS compliant matte-tin over nickel over phos bronze.  
Special order: T = RoHS tin-silver-copper (95.5/4/0.5)  
or S = non-RoHS tin-lead (63/37).

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (500 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 D instead.

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A or equivalent.
- DCR measured on a micro-ohmmeter.
- SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
- DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
- 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.](#)
- Electrical specifications at 25°C.

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

**Designer's Kit C365** contains 3 each of all values

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**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** 2.6 – 2.8 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** 500 per 13" reel; Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 6.6 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).



[www.coilcraft.com](http://www.coilcraft.com)

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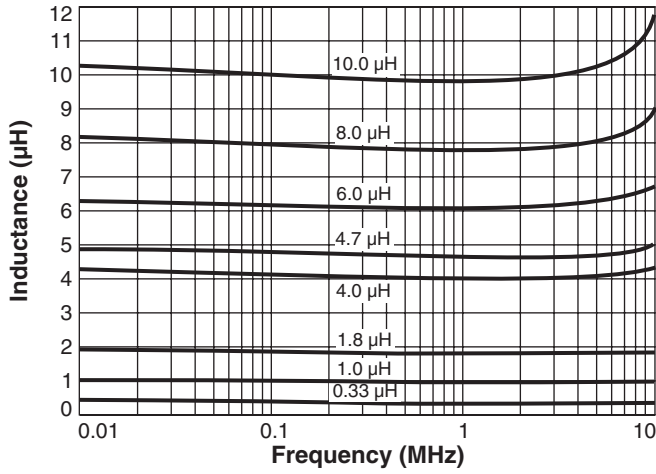
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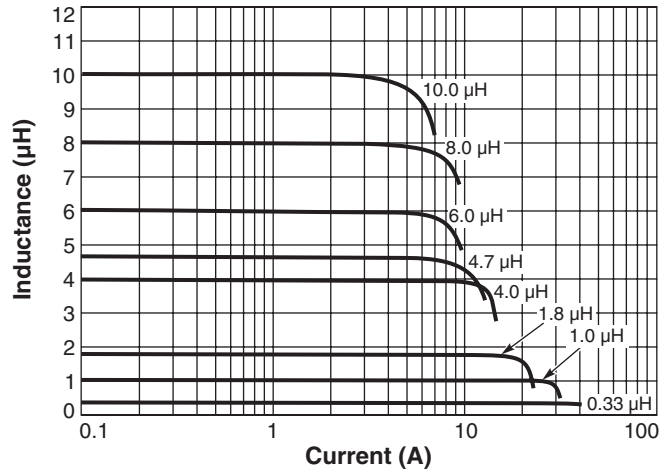


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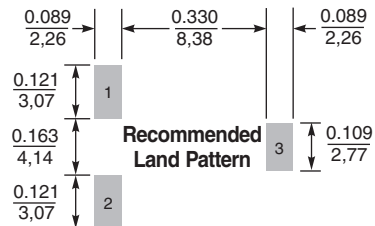
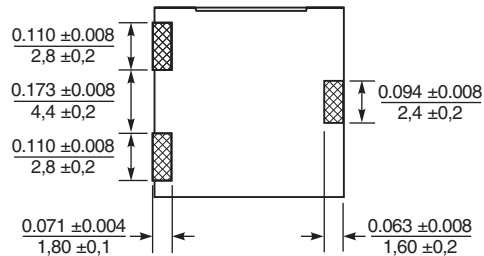
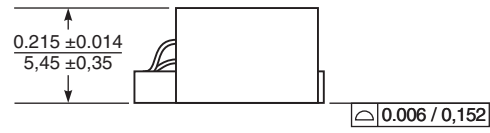
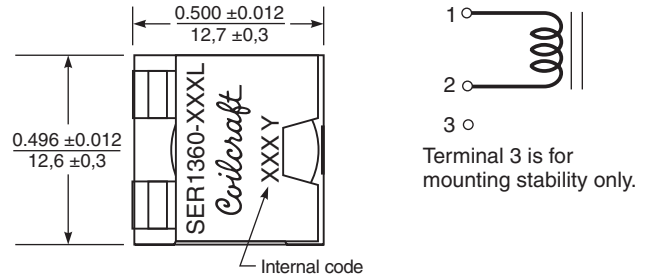
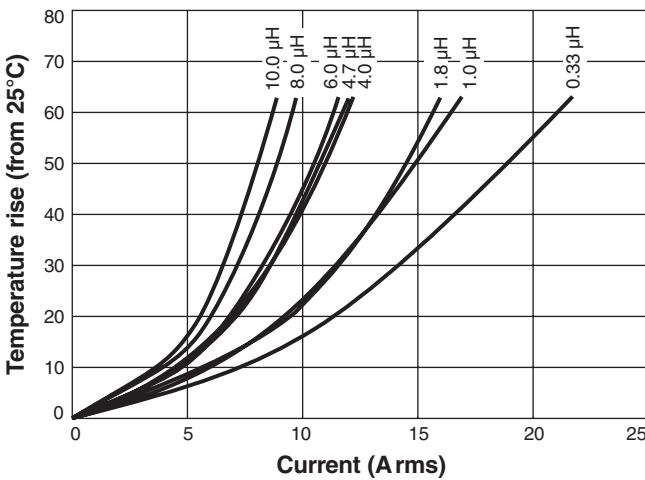
## Typical L vs Frequency



## Typical L vs Current



## Temperature Rise vs Current



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



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