

# 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 tin-silver-copper over copper over tin over nickel over phos-bronze.  
Special order: T = RoHS tin-silver-copper over 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). 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 D.

- 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 4 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-copper over 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** 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)

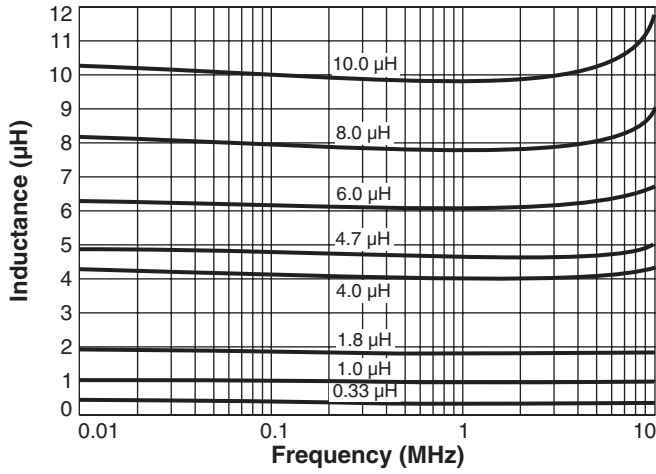
**Packaging** 500 per 13" reel; Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 6.6 mm pocket depth

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

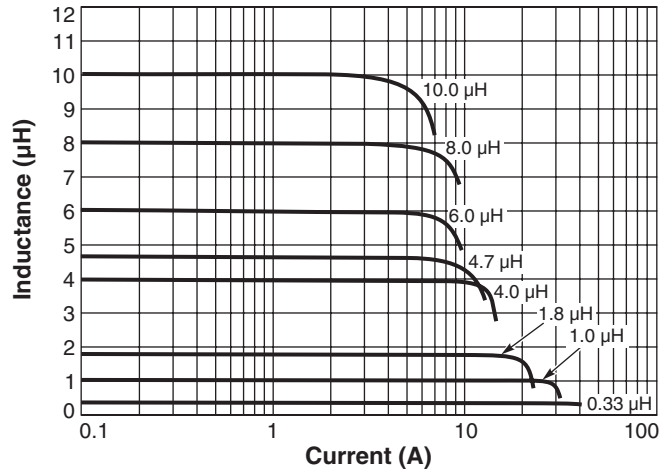


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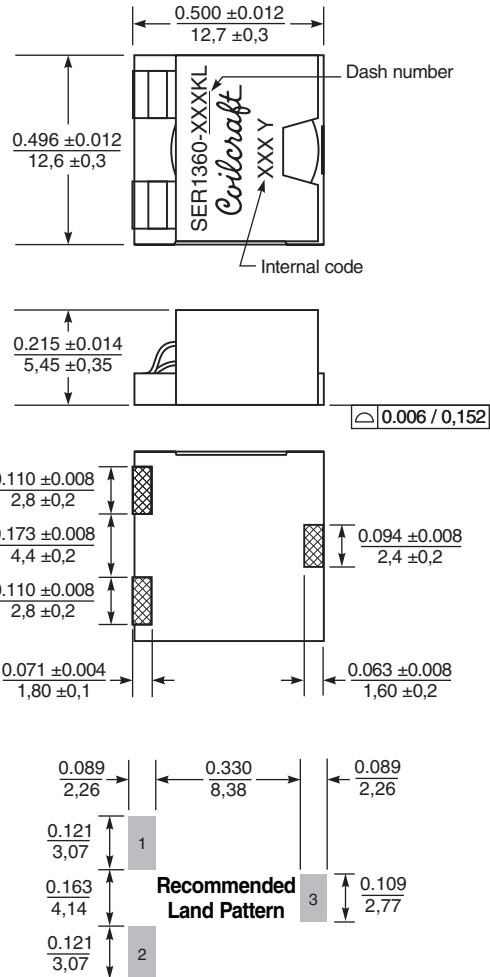
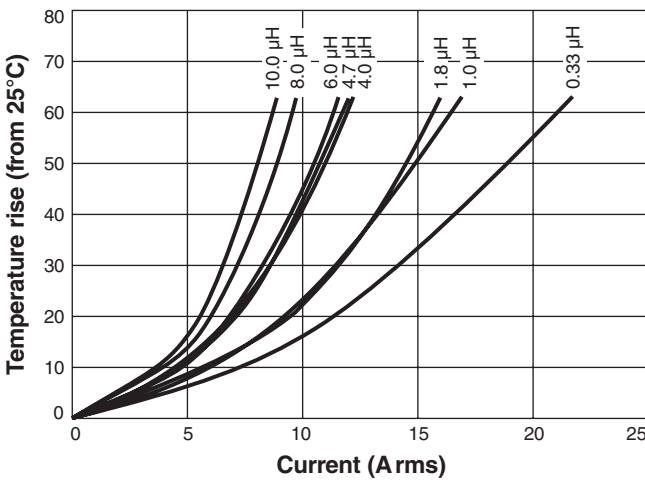
## Typical L vs Frequency



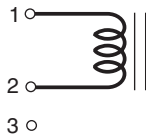
## Typical L vs Current



## Temperature Rise vs Current



## Schematic



Terminal 3 is for mounting stability only.

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



**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  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

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