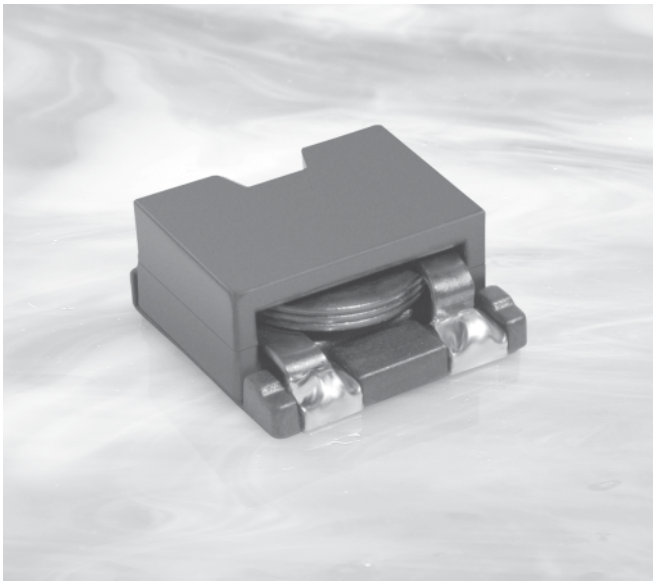
SMT Power Inductors - SER1360 Series



The SER1360 series provides exceptionally high current carrying capability (up to 48 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[1]	Inductance[2] ±10% (µH)	DCR typ[3] (mOhm)	DCR max[3] (mOhm)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	20% drop	30% drop	Irms (A)[6] 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:

SER1360-103K L D

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.

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 8753D network analyzer and a Coilcraft SMD-D test fixture.
5. DC current at which the inductance drops 10% (typ) from its value without current.
6. Current that causes a 40°C temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.
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

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 2.6 – 2.8 g

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C. Packaging: –55°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)

Mean Time Between Failures (MTBF) 26,315,789 hours

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 Only pure water or alcohol recommended

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information. Document 290-1 Revised 02/04/08

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

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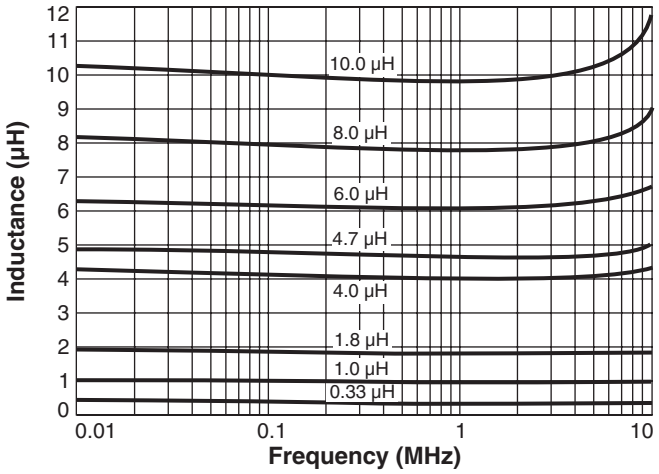
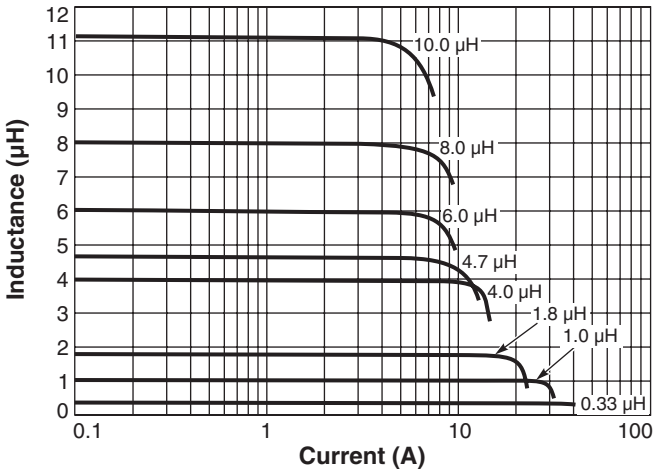
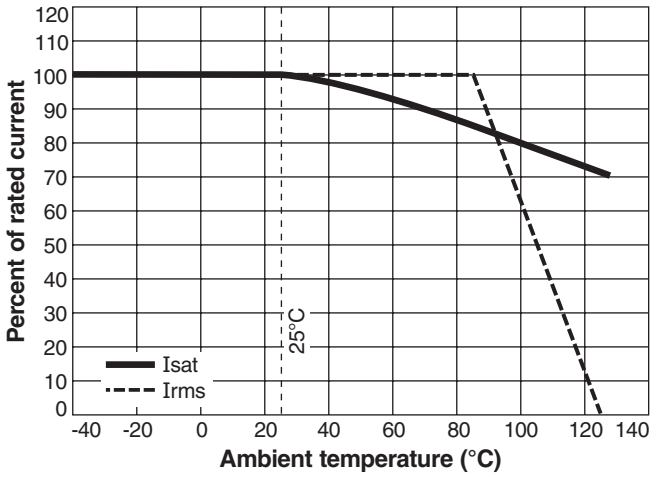
Typical L vs Frequency

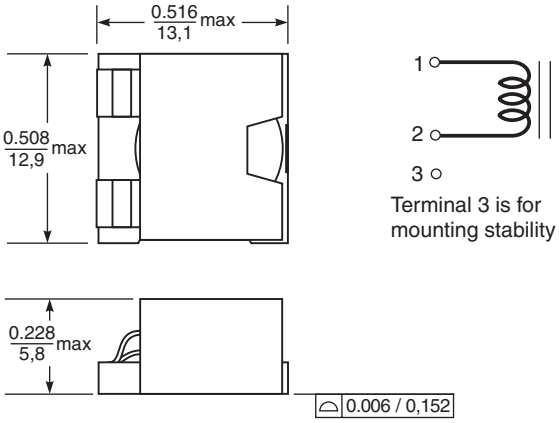


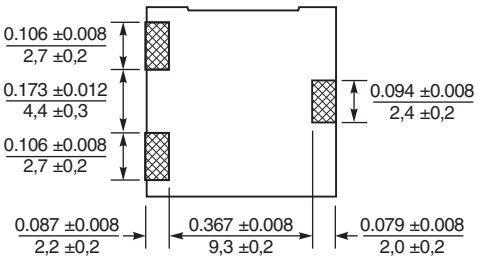
Typical L vs Current



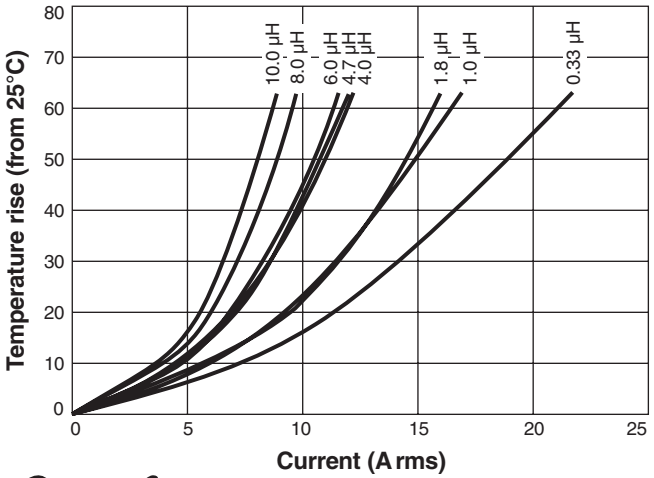
Current Derating

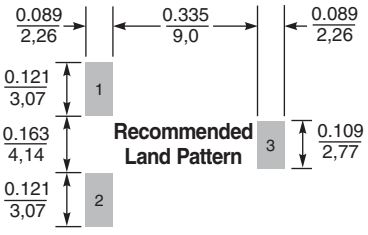






Temperature Rise vs Current





Dimensions are in inches / mm

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com