

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 ¹ | Inductance ² ±10% (µH) | DCR (mOhm) ³ | | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|-------------------------|-------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | 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

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](#).



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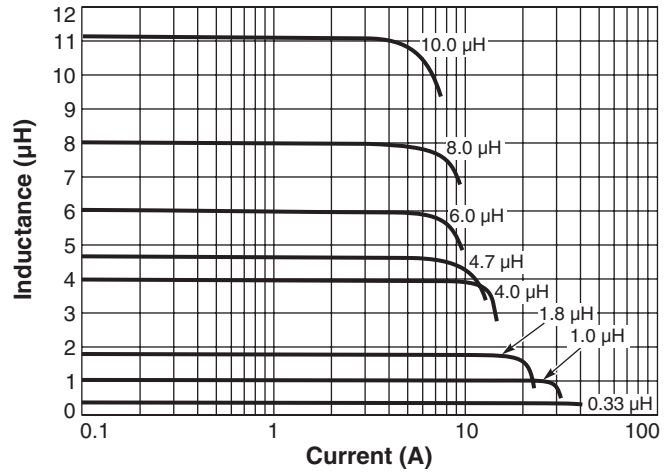
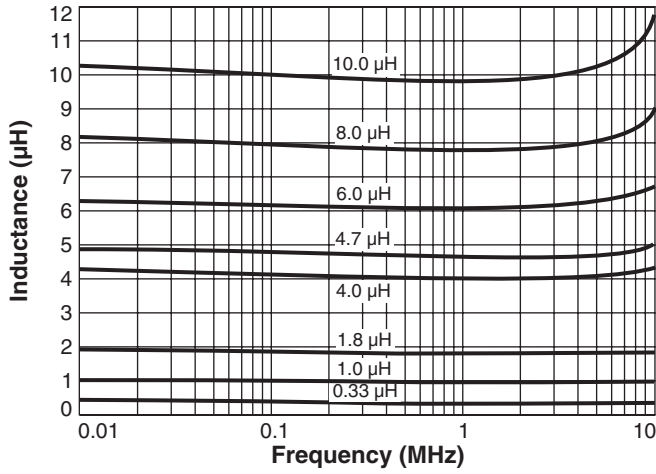
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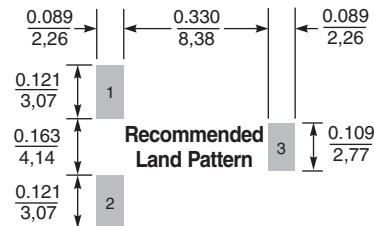
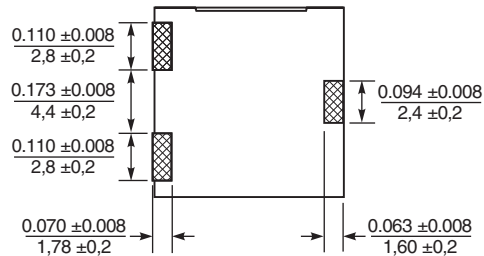
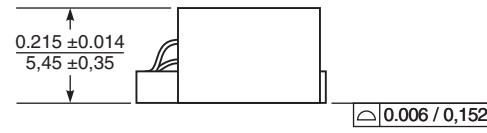
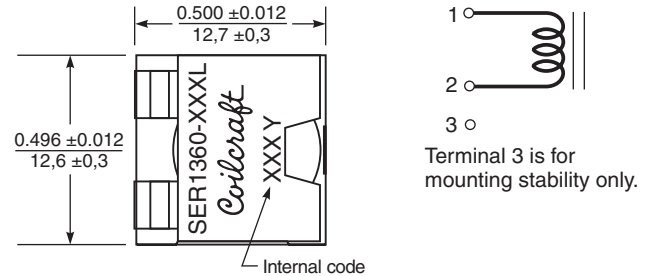
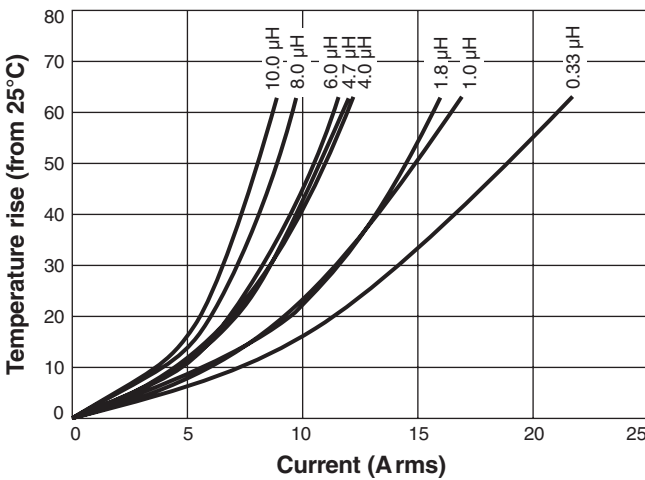


Shielded Power Inductors - SER1360 Series

Typical L vs Frequency Typical L vs Current



Temperature Rise vs Current



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



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Mouser Electronics

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