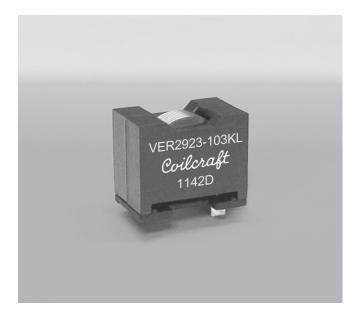
# Shielded Power Inductors – VER2923



- Designed for high current power supply applications with saturation current ratings to over 100 Amps
- Ideal for use in Class-D applications
- Flat wire windings provide extremely low DC and AC resistance
- Vertical mounting provides a small footprint

#### Core material Ferrite

**Terminations** RoHS compliant tin-silver over copper. Other terminations available at additional cost.

#### Weight 37 g

Ambient temperature  $-40^{\circ}$ C to  $+85^{\circ}$ C with Irms current,  $+85^{\circ}$ C to  $+125^{\circ}$ C with derated current

**Storage temperature** Component: -40°C to +85°C. Packaging: -40°C to +80°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}$ C /  $85^{\circ}$  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** 25 parts per tray

PCB washing Only pure water or alcohol recommended

| Part          | Inductance <sup>1</sup> | DCR (mOhms) <sup>2</sup> |     | SRF typ <sup>3</sup> | Isat (A) <sup>4</sup> |          |          | Irms (A)⁵ |           |
|---------------|-------------------------|--------------------------|-----|----------------------|-----------------------|----------|----------|-----------|-----------|
| number        | ±10% (µH)               | nom                      | max | (MHz)                | 10% drop              | 20% drop | 30% drop | 20°C rise | 40°C rise |
| VER2923-332KL | 3.3                     | 2.3                      | 2.6 | 40                   | 95.0                  | 104      | 108      | 19        | 26        |
| VER2923-472KL | 4.7                     | 2.3                      | 2.6 | 30                   | 63.0                  | 69.0     | 72.0     | 19        | 26        |
| VER2923-682KL | 6.8                     | 2.3                      | 2.6 | 25                   | 48.0                  | 53.0     | 56.0     | 19        | 26        |
| VER2923-103KL | 10                      | 2.3                      | 2.6 | 20                   | 30.0                  | 34.0     | 37.0     | 19        | 26        |
| VER2923-153KL | 15                      | 2.3                      | 2.6 | 16                   | 20.5                  | 23.0     | 24.5     | 19        | 26        |
| VER2923-223KL | 22                      | 2.3                      | 2.6 | 13                   | 12.2                  | 14.7     | 16.4     | 19        | 26        |
| VER2923-333KL | 33                      | 2.3                      | 2.6 | 10                   | 7.5                   | 9.2      | 10.3     | 19        | 26        |

1. Inductance tested at 300 kHz, 0.1 Vrms on Agilent/HP 4192A.

2. DCR measured on a Keithley 580 micro-ohmmeter or equivalent.

3. SRF measured on an Agilent/HP 8753ES network analyzer.

DC current at which the inductance drops the specified amount from its value without current.

 Current that causes the specified temperature rise of the winding from 25°C ambient. Temperature rise of the core is usually less than that of the winding. When Irms is greater than Isat, Isat is the more critical specification and Irms is shown in gray type.

6. Electrical specifications at 25°C.

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

#### Caution:

This series is not intended for use in high vibration environments. We advise using additional means of securing the part to the circuit board to ensure its adhesion.

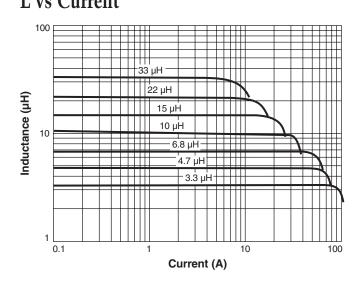


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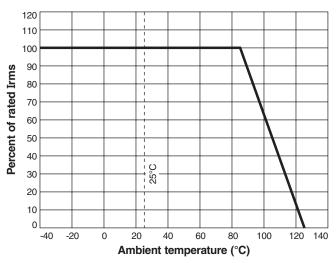
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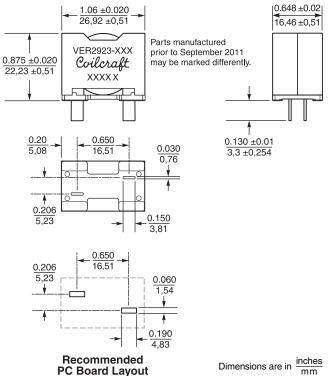
## Shielded Power Inductors - VER2923 Series L vs Current L vs Frequency



100  $\left\{ \left\{ \right\} \right\}$ 33 µH 22 µH Inductance (µH) 15 µH 10 µH 10 4.7 μF 3.3 µH 1 0.1 10 100 1 Frequency (MHz)

### **Irms Derating**







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#### Document 834-2 Revised 02/15/12

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