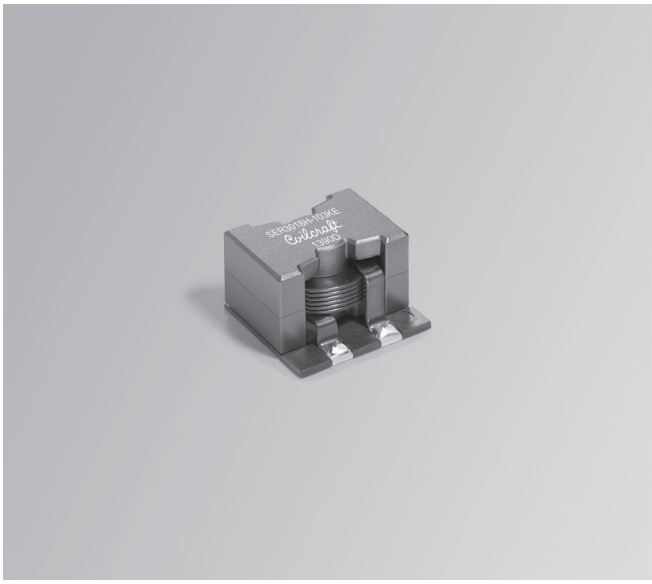
RoHS/ REACH COMPLIANT

Halogen Free

# Shielded Power Inductors – SER3018H



- Same electrical specifications and land pattern as the SER2918H
- Mounting plate with three pads for excellent board adhesion
- Extremely low DCR; current handling up to 93.6 Amps

**Core material** Ferrite
**Core and winding loss** See www.coilcraft.com/coreloss
**Environmental** RoHS compliant, halogen free
**Terminations** RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.
**Weight** 36.2 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** 25 pieces per tray
**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

| Part number[1] | Inductance[2] ±10% (µH) | DCR (mOhms)[3] nom | DCR (mOhms)[3] max | SRF typ[4] (MHz) | Isat (A)[5] 10% drop | Isat (A)[5] 20% drop | Isat (A)[5] 30% drop | Irms (A)[6] 20°C rise | Irms (A)[6] 40°C rise |
|---|---|---|---|---|---|---|---|---|---|
| SER3018H-332KE | 3.3 | 2.56 | 2.82 | 40 | 91.0 | 92.5 | 93.6 | 20 | 28 |
| SER3018H-472KE | 4.7 | 2.56 | 2.82 | 30 | 59.0 | 61.2 | 62.4 | 20 | 28 |
| SER3018H-682KE | 6.8 | 2.56 | 2.82 | 25 | 42.0 | 45.0 | 45.9 | 20 | 28 |
| SER3018H-103KE | 10 | 2.56 | 2.82 | 20 | 28.0 | 31.2 | 32.1 | 20 | 28 |
| SER3018H-153KE | 15 | 2.56 | 2.82 | 16 | 18.0 | 21.2 | 21.9 | 20 | 28 |
| SER3018H-223KE | 22 | 2.56 | 2.82 | 15 | 12.0 | 14.0 | 15.0 | 20 | 28 |
| SER3018H-333KE | 33 | 2.56 | 2.82 | 10 | 7.0 | 8.7 | 9.6 | 20 | 28 |

1. When ordering, please specify **termination** code:

**SER3018H-333KE**

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

2. Inductance measured at 500 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
3. DCR measured on a Keithley 580 micro-ohmmeter or equivalent.
4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
6. 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.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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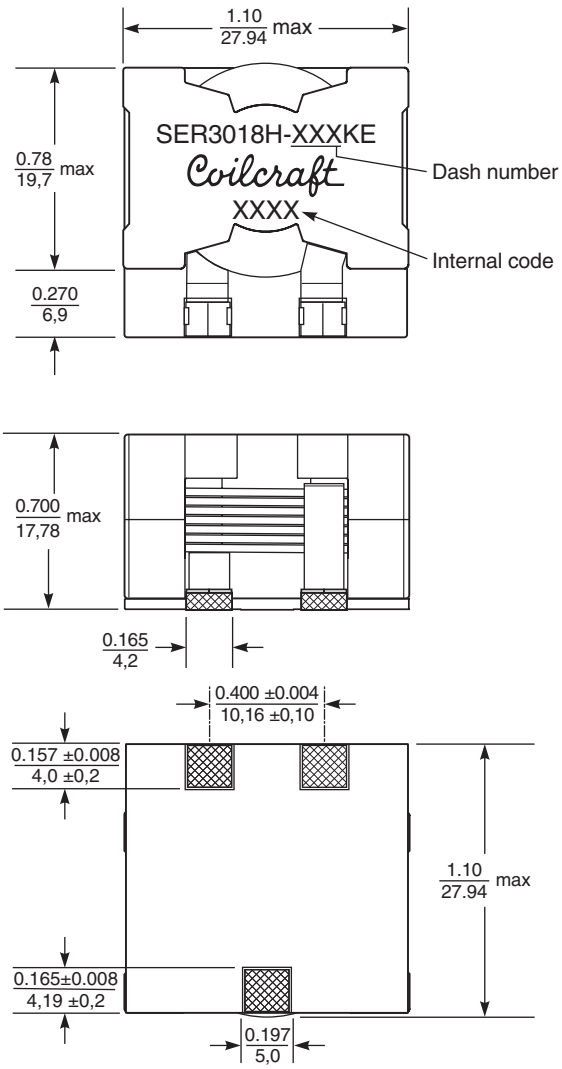
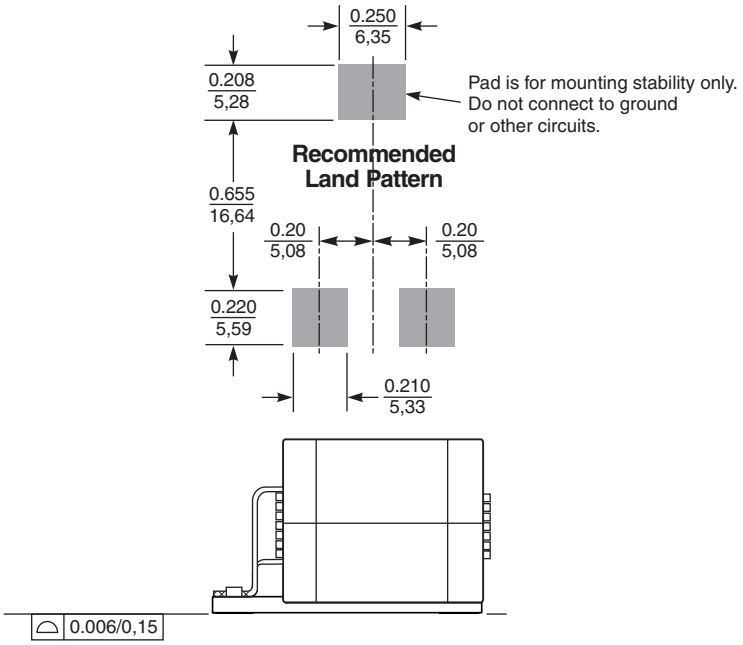
# Shielded Power Inductors – SER3018H Series




Dimensions are in inches / mm

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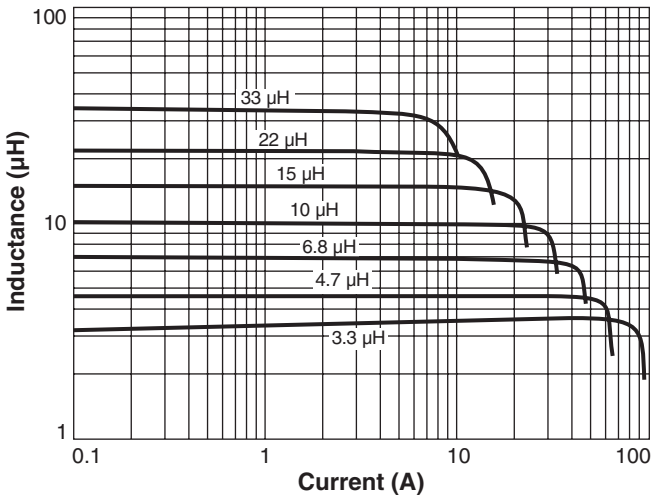
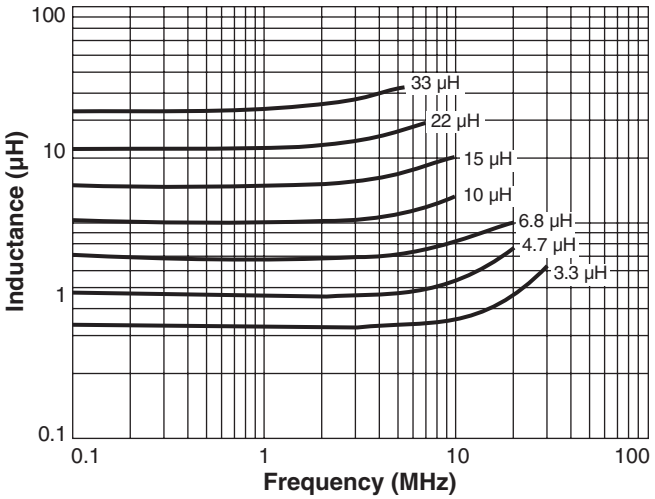
## L vs Current




## L vs Frequency

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