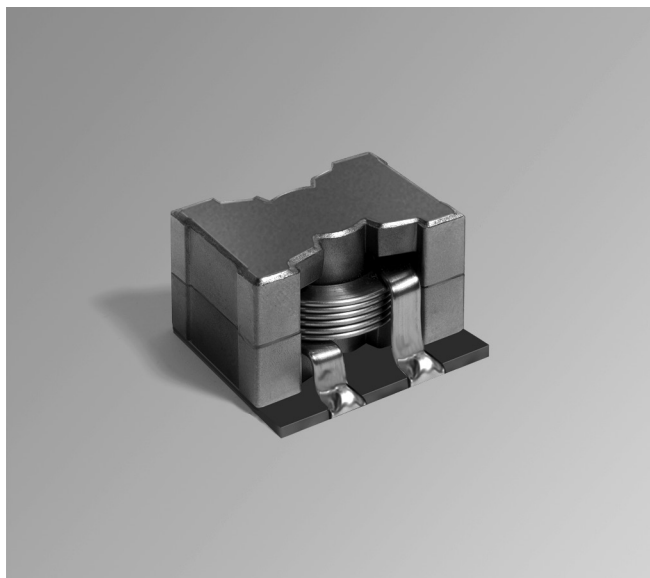




# Shielded Power Inductors – SER3018H



- 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

**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 Irms current, +85°C to +125°C with derated current

**Storage temperature** Component: –40°C to +125°C.  
Tray 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** 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 <sup>1</sup>	Inductance <sup>2</sup> ±10% (µH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		nom	max		10% drop	20% drop	30% drop	20°C rise	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 (95.5/4/0.5) or

**S** = non-RoHS tin-lead (63/37).

- Inductance measured at 500 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
- DCR measured on a Keithley 580 micro-ohmmeter or equivalent.
- SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
- DC current at which the inductance drops the specified amount from its value without current.
- Current that causes the specified temperature rise from 25°C ambient.
- Electrical specifications at 25°C.

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



www.coilcraft.com

**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

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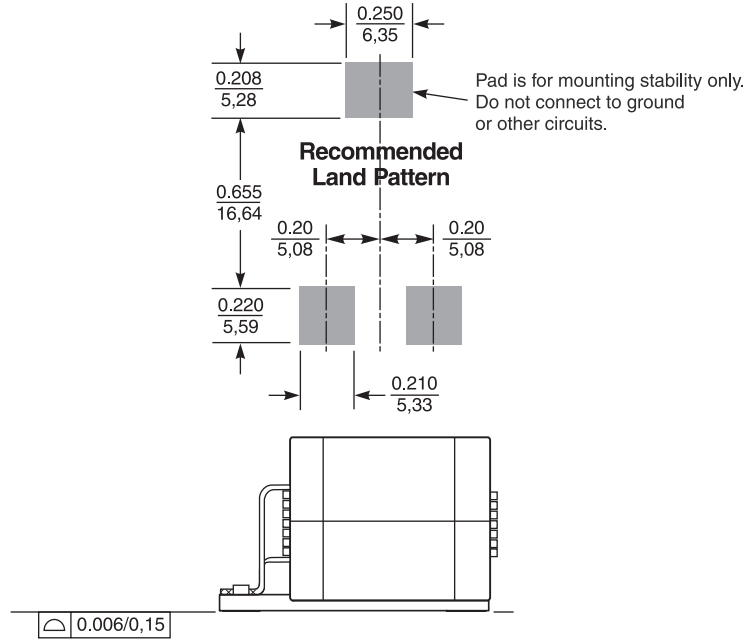
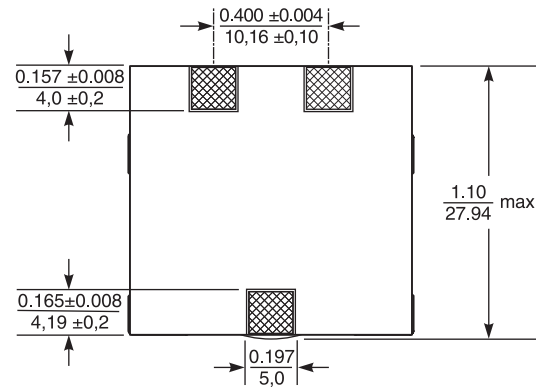
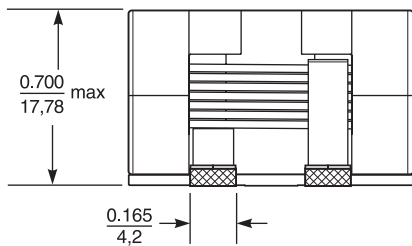
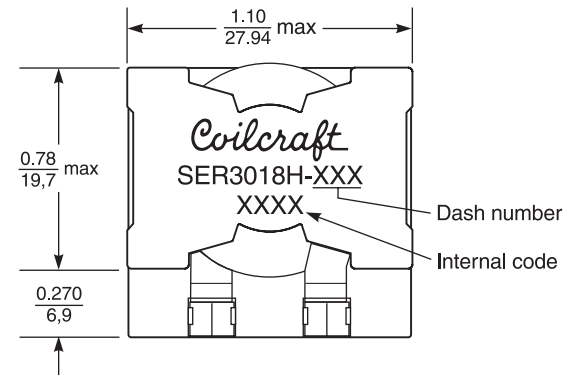
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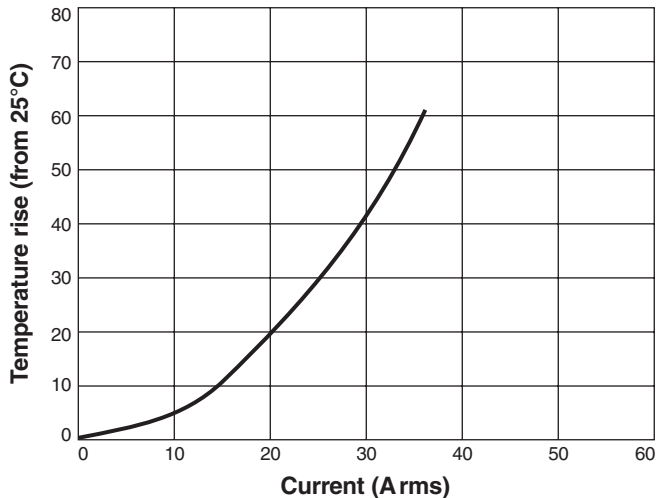


# Shielded Power Inductors – SER3018H Series

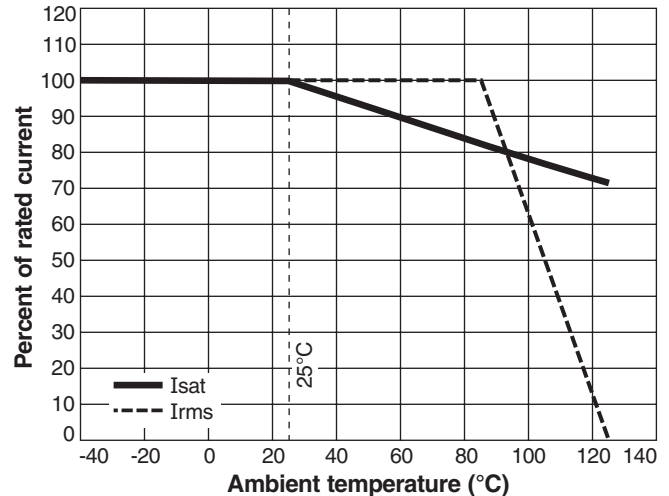


Dimensions are in inches mm

## Temperature Rise vs Current



## Current Derating



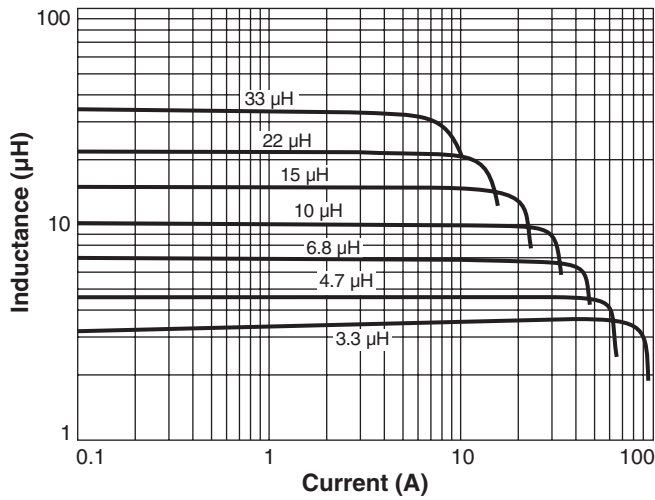
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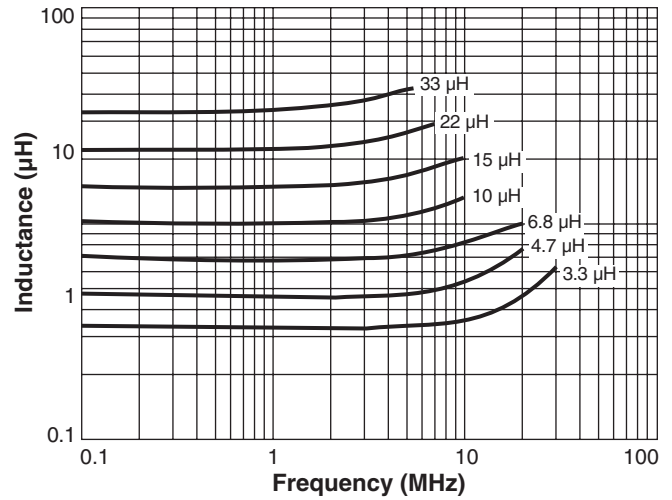


# Shielded Power Inductors – SER3018H Series

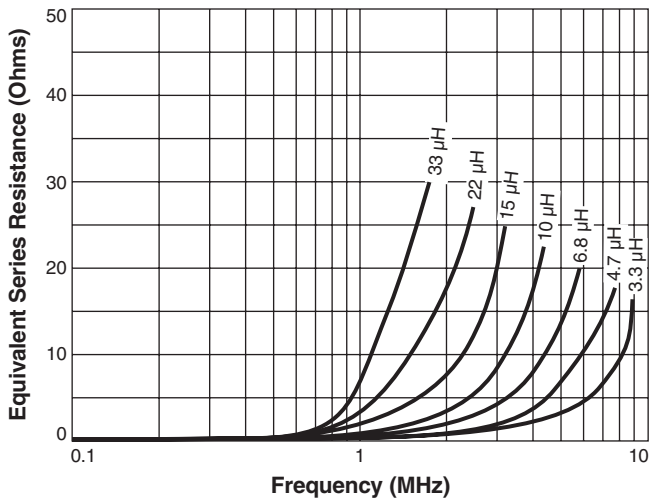
## L vs Current



## L vs Frequency



## ESR vs Frequency



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**China** +86-21-6218 8074 sales@coilcraft.com.cn  
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