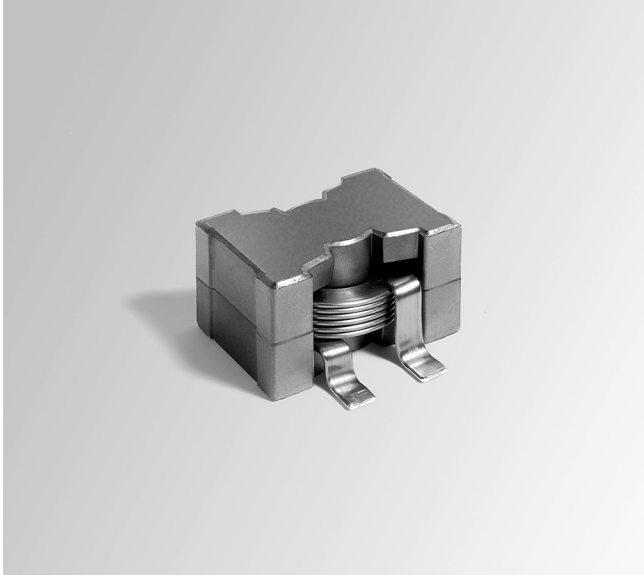




# Shielded Power Inductors – SER2800



- Perfect for high current, low voltage power supply applications
- Extremely low DCR; Current handling to >100 Amps
- Higher inductance values than other SER series – up to 33  $\mu$ H

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

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

**Weight** SER2814L–27.5g; SER2814H–28.7g; SER2817H–34.7g

**Ambient temperature** –40°C to +85°C with  $I_{rms}$  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)

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

**Packaging** 25 pieces per tray

**PCB washing** Only pure water or alcohol recommended

Part number	Inductance <sup>1</sup> $\pm 10\%$ ( $\mu$ H)	DCR <sup>2</sup> (mOhms)		SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
		nom	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
SER2814L-152KL	1.5	1.47	1.62	60	100	>100	>100	20	30
SER2814H-222KL	2.2	1.83	2.01	40	100	>100	>100	20	30
SER2814L-222KL	2.2	1.47	1.62	50	82.0	84.0	84.8	20	30
SER2817H-332KL	3.3	2.56	2.82	40	91.0	92.5	93.6	20	28
SER2814H-332KL	3.3	1.83	2.01	30	62.0	66.9	68.4	20	30
SER2814L-332KL	3.3	1.47	1.62	40	48.0	54.0	57.0	20	30
SER2817H-472KL	4.7	2.56	2.82	30	59.0	61.2	62.4	20	28
SER2814H-472KL	4.7	1.83	2.01	25	42.0	48.0	50.1	20	30
SER2814L-472KL	4.7	1.47	1.62	30	33.0	36.9	39.0	20	30
SER2817H-682KL	6.8	2.56	2.82	25	42.0	45.0	45.9	20	28
SER2814H-682KL	6.8	1.83	2.01	20	30.0	34.5	36.2	20	30
SER2814L-682KL	6.8	1.47	1.62	25	22.0	26.0	27.8	20	30
SER2817H-103KL	10	2.56	2.82	20	28.0	31.2	32.1	20	28
SER2814H-103KL	10	1.83	2.01	15	18.0	21.5	23.4	20	30
SER2814L-103KL	10	1.47	1.62	20	13.0	16.2	17.6	20	30
SER2817H-153KL	15	2.56	2.82	16	18.0	21.2	21.9	20	28
SER2814H-153KL	15	1.83	2.01	12	11.5	14.0	15.2	20	30
SER2814L-153KL	15	1.47	1.62	15	7.5	9.8	11.0	20	30
SER2817H-223KL	22	2.56	2.82	15	12.0	14.0	15.0	20	28
SER2814H-223KL	22	1.83	2.01	10	7.0	8.6	9.6	20	30
SER2814L-223KL	22	1.47	1.62	10	4.5	6.0	6.8	20	30
SER2817H-333KL	33	2.56	2.82	10	7.0	8.7	9.6	20	28
SER2814H-333KL	33	1.83	2.01	8	4.0	5.1	5.9	20	30
SER2814L-333KL	33	1.47	1.62	7	2.0	2.6	3.3	20	30

1. Inductance measured at 500 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
  2. DCR measured on a Keithley 580 micro-ohmmeter or equivalent.
  3. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16092A test fixture.
  4. DC current at which the inductance drops the specified amount from its value without current.
  5. Current that causes a the specified temperature rise from 25°C ambient.
  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 or mechanical shock environments. We advise using additional means of securing the part to the circuit board to ensure its adhesion. Consider our SER2900 series, which offers nearly identical electrical characteristics and incorporates a third mount pad for better stability and board adhesion.



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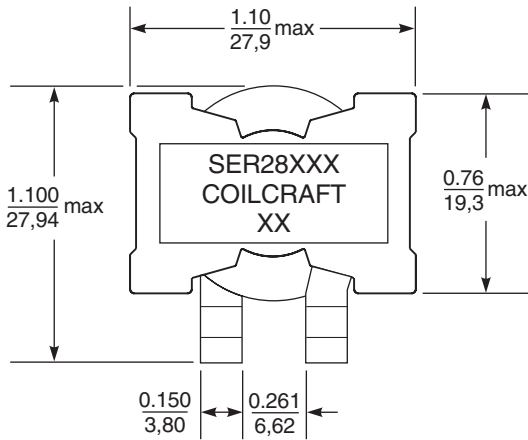
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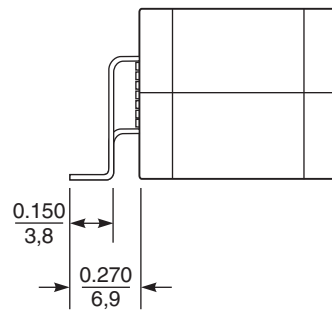
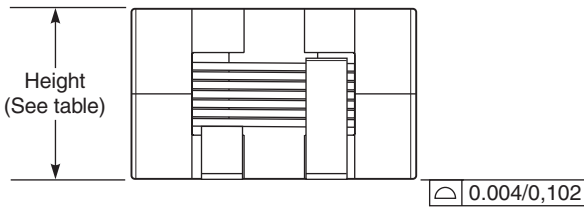
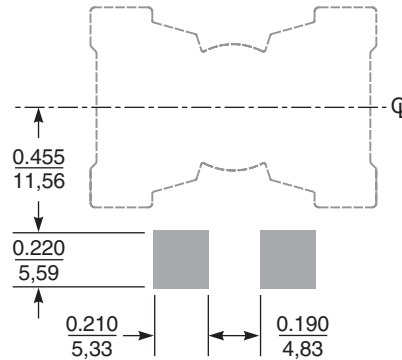
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# Shielded Power Inductors - SER2800 Series



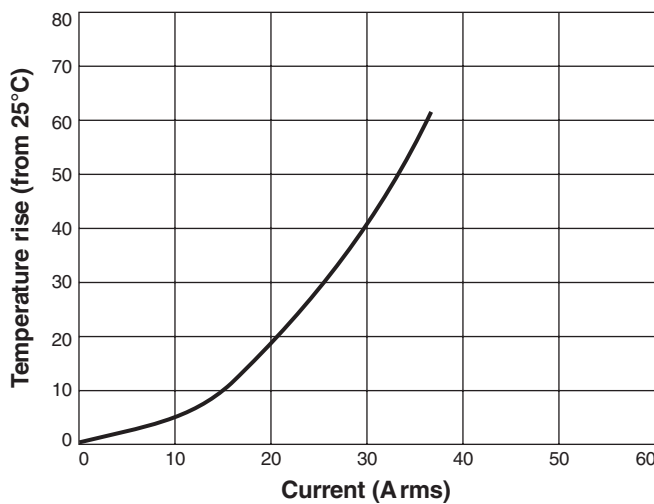
## Recommended Land Pattern



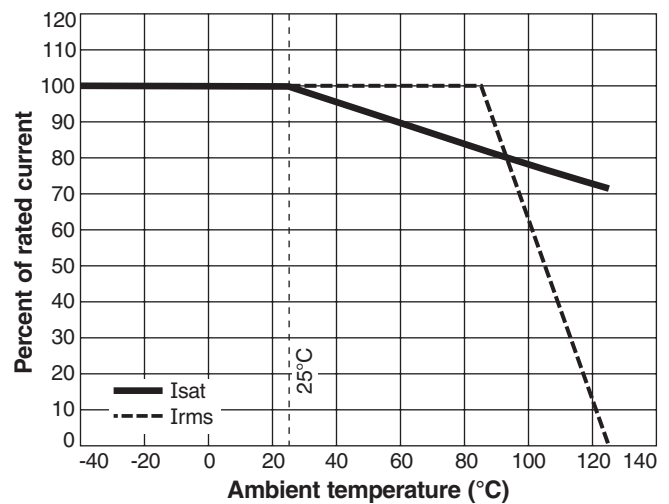
### Maximum height

SER2814L	0.560 / 14,22
SER2814H	0.560 / 14,22
SER2817H	0.655 / 16,64

## Temperature Rise vs Current



## Current Derating



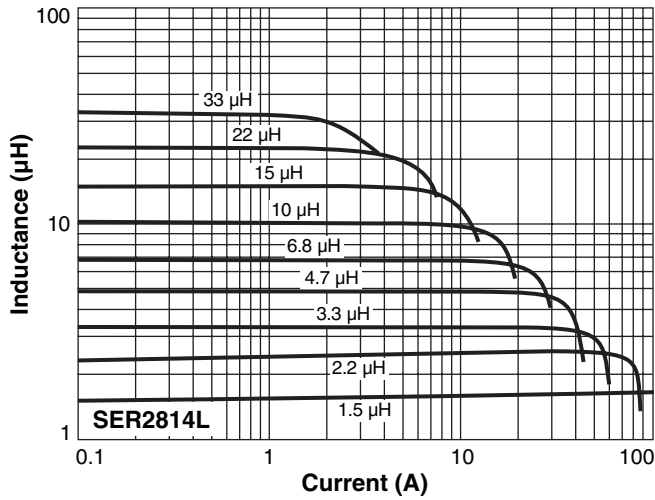
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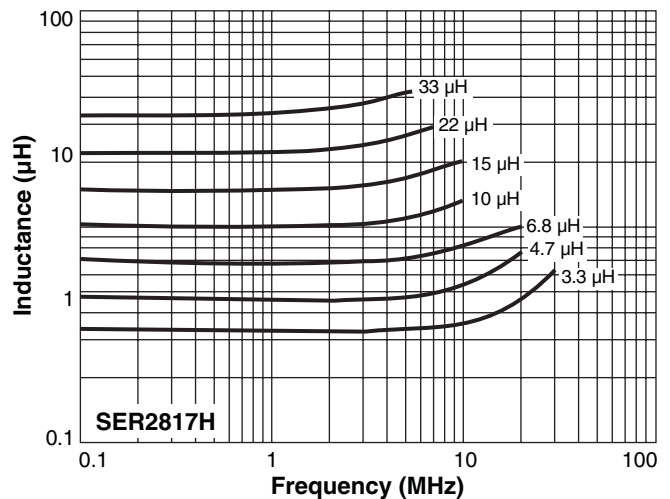
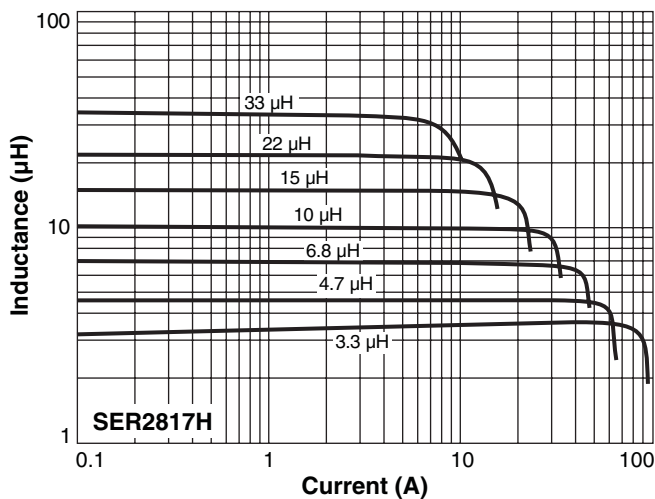
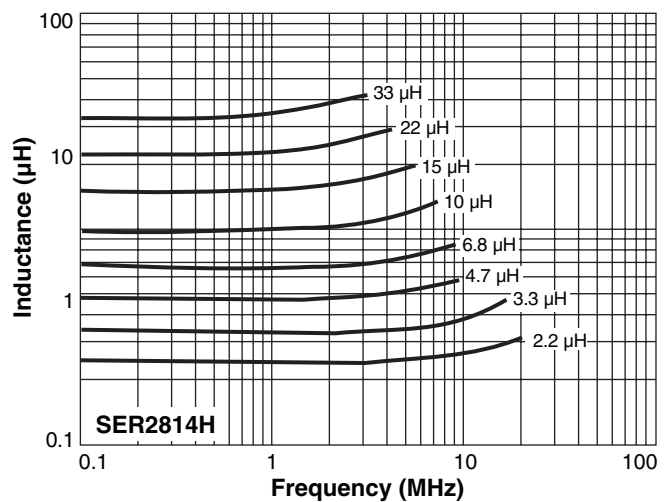
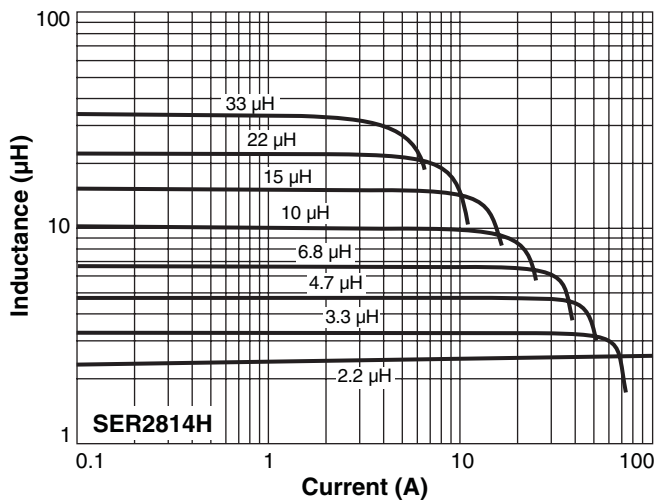
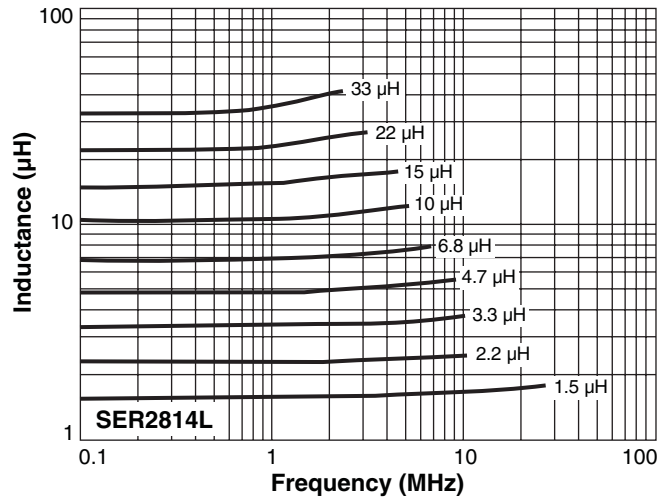


# Shielded Power Inductors - SER2800 Series

## L vs Current



## L vs Frequency



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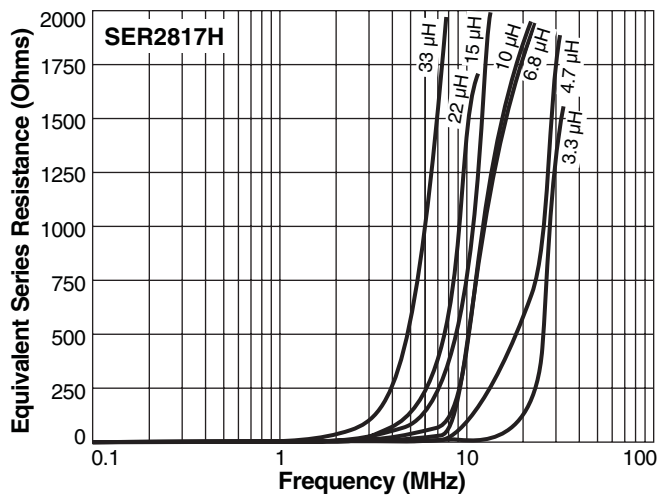
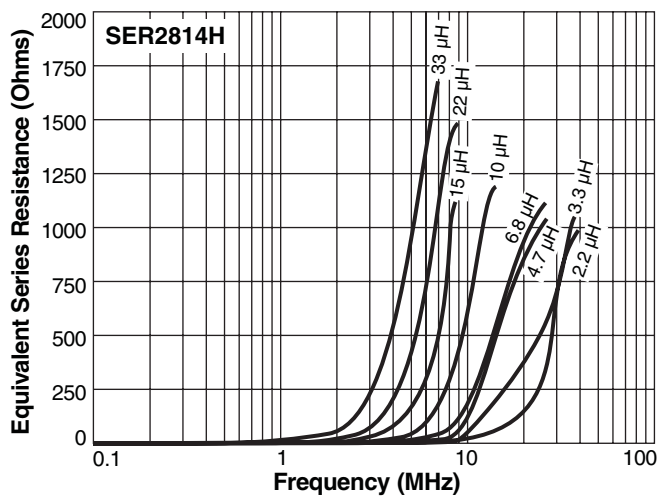
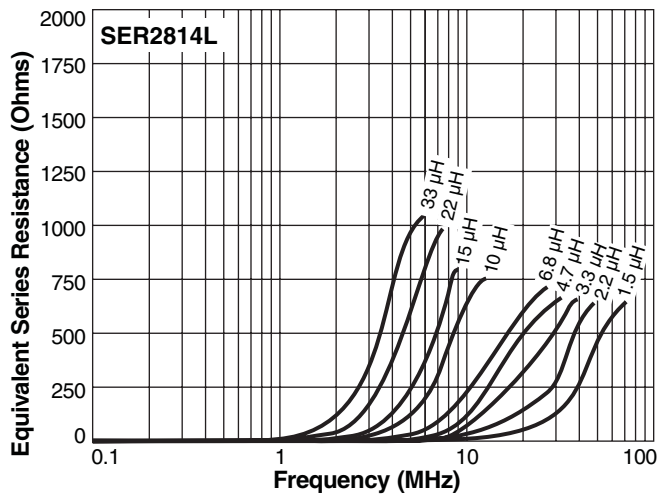
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# Shielded Power Inductors - SER2800 Series

## ESR vs Frequency



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