

**NEW!**

# Power Inductor – GA3199-AL

For ON Semiconductor  
NCP1654 PFC Controller



- Designed for ON Semiconductor for their 300 Watt, wide mains, PFC stage, driven by the NCP1654 PFC Controller
- Shown as L1 on Application Note AND8324/D
- High inductance: 650  $\mu$ H; high saturating current: 6.3 A

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 94 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{\text{rms}}$  current,  $+85^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with derated current

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .  
Packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

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

**Packaging** 20 per tray

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

Part number	Inductance <sup>1</sup> $\pm 10\%$ ( $\mu$ H)	DCR max (Ohm)	SRF typ <sup>2</sup> (kHz)	Isat (A) <sup>3</sup>			Irms (A) <sup>4</sup>	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
GA3199-AL	650	0.165	770	5.8	6.1	6.3	2.9	3.8

1. Inductance measured at 10 kHz, 0.1 Vrms, 0 Adc.

2. SRF measured on an Agilent/ HP 4192A impedance analyzer or equivalent

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

4. Current that causes the specified temperature rise from  $25^{\circ}\text{C}$  ambient.

5. Electrical specifications at  $25^{\circ}\text{C}$ .

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

# Coilcraft®

Specifications subject to change without notice.  
Please check our website for latest information.

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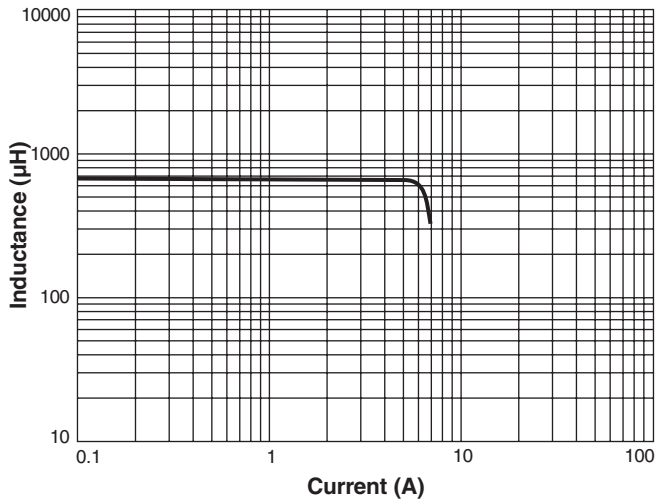
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



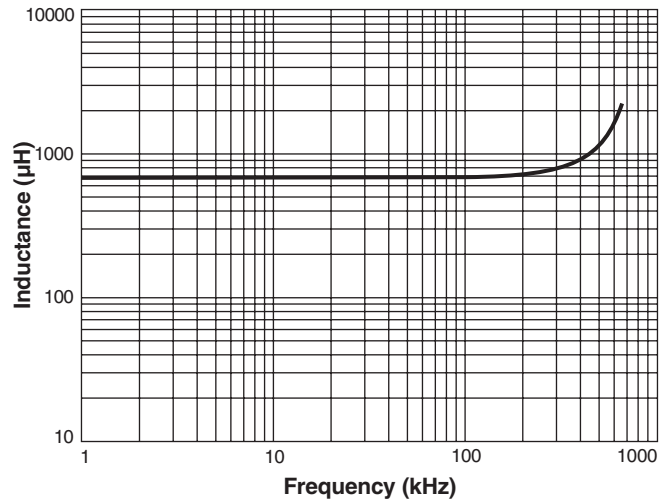
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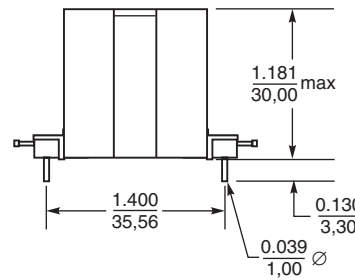
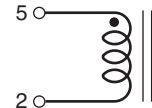
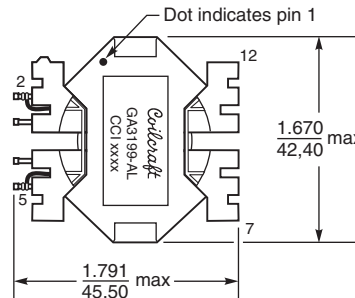
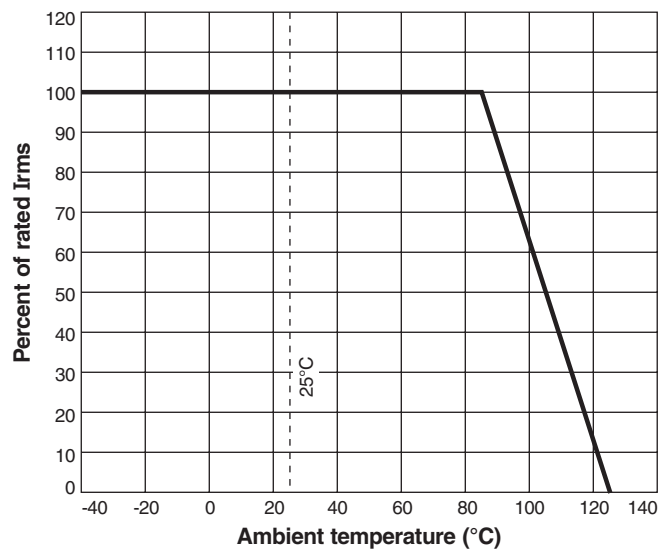
## Inductance vs Current



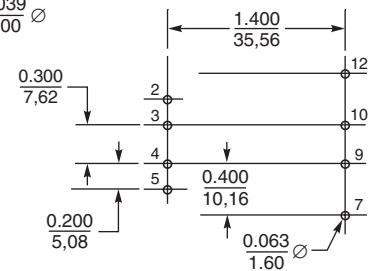
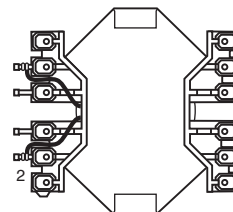
## Inductance vs Frequency



## Irms Derating



### Recommended PC Board Layout



Dimensions are in inches/mm

Pins 1,6,8 and 11 are removed during manufacture



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