



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 μ H; high saturating current: 6.3 A

Core material Ferrite

Terminations RoHS compliant tin-silver (96.5/3.5) over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 94 g

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with $(40^{\circ}\text{C}$ rise) Irms current.

Maximum part temperature $+125^{\circ}\text{C}$ (ambient + temp rise)

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.

Tray packaging: -40°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) / Failures in Time (FIT)
26,315,789 hours / 38 per billion hours, Calculated per Telcordia SR-322

Packaging 20 per tray

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number	Inductance ¹ $\pm 10\%$ (μ H)	DCR max (Ohm)	SRF typ ² (kHz)	Isat (A) ³			Irms (A) ⁴	
				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 25°C that causes the specified inductance drop from its value without current.

4. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

5. 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
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 685-1 Revised 03/11/16

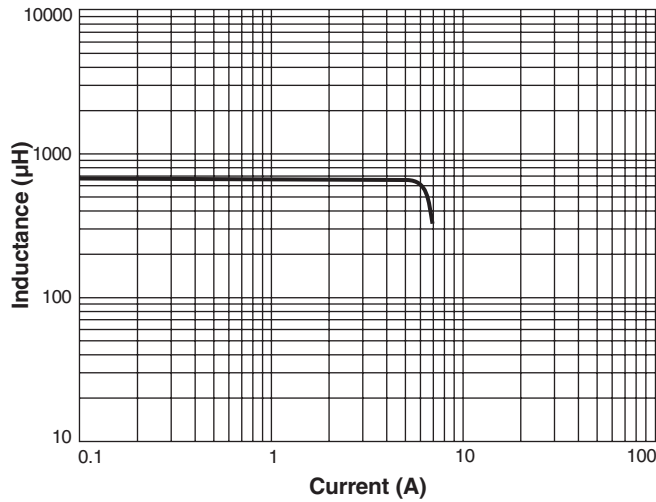
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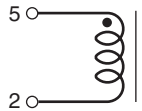
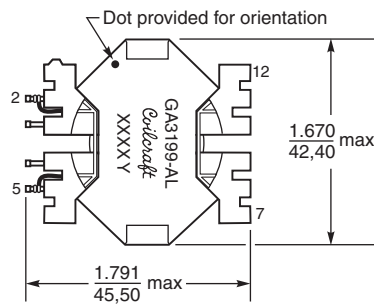
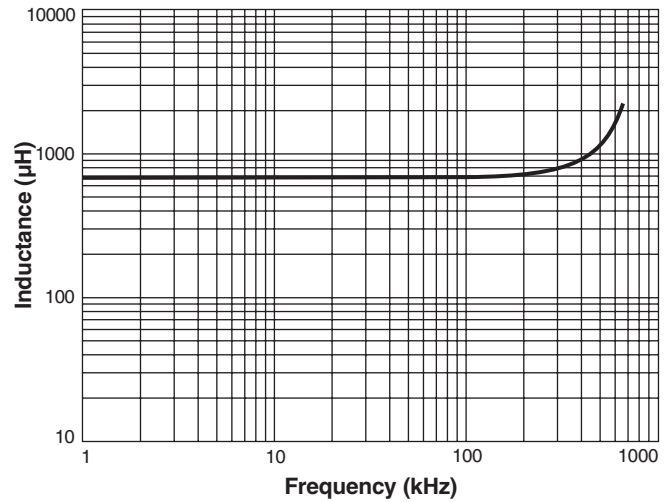


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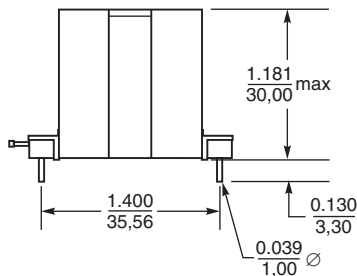
Inductance vs Current



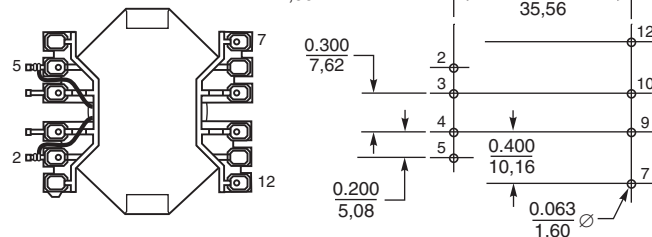
Inductance vs Frequency



Parts manufactured prior to December 2011 may be marked differently.



Recommended PC Board Layout



Dimensions are in $\frac{\text{inches}}{\text{mm}}$



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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
 China +86-21-6218 8074 sales@coilcraft.com.cn
 Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 685-2 Revised 03/11/16

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