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 µH; 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°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise)

Storage temperature Component: –40°C to +125°C. Tray packaging: –40°C to +80°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°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] ±10% (µH)	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.

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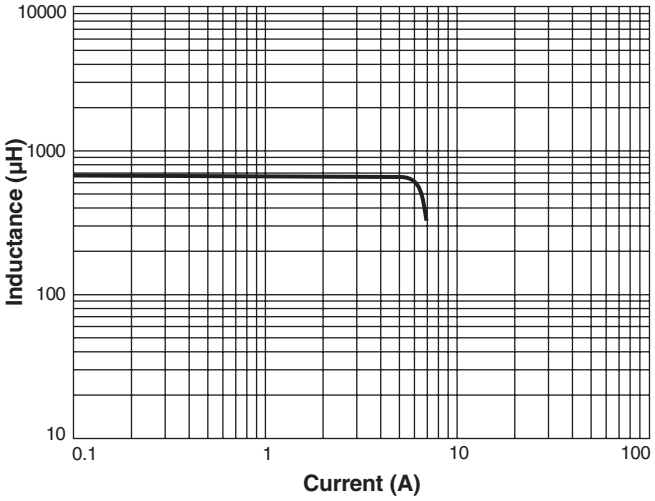
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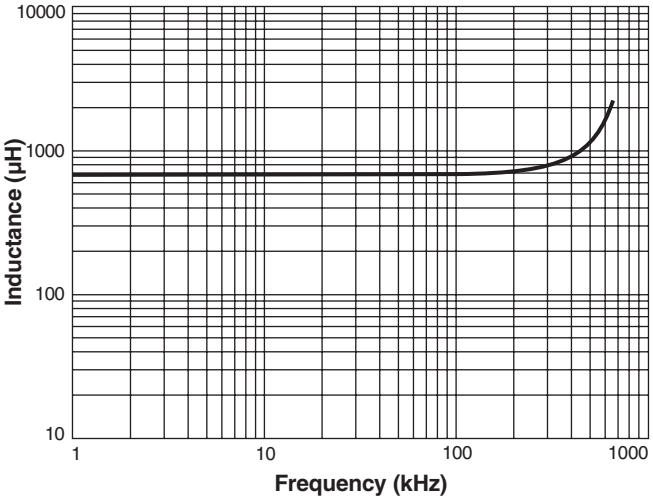
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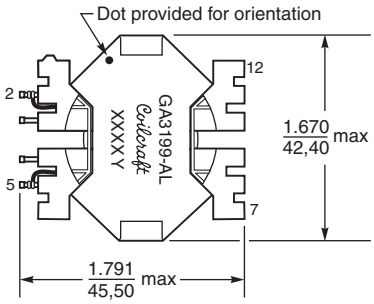
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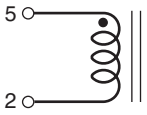
Inductance vs Current



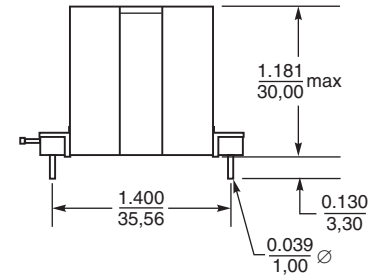
Inductance vs Frequency

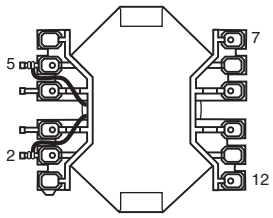




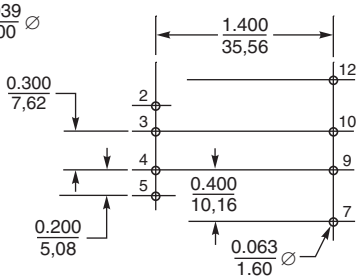


Parts manufactured prior to December 2011 may be marked differently.





Recommended PC Board Layout



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

Dimensions are in inches / mm

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