### 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

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**Core material**: Ferrite  
**Terminations**: RoHS compliant tin-silver (96.5/3.5) over tin over nickel over phosphor 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.  
**Moisture Sensitivity Level (MSL)**: 1 (unlimited floor life at <30°C / 85% relative humidity)  
**Packaging**: 20 per tray  
**PCB washing**: Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc 787_PCB_Washing.pdf.

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**Part number**: GA3199-AL  
**Inductance**

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.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance±10% (µH)</th>
<th>DCR max (Ohm)</th>
<th>SRF typ (kHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA3199-AL</td>
<td>650</td>
<td>0.165</td>
<td>770</td>
<td>5.8</td>
<td>6.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>10% drop</th>
<th>20% drop</th>
<th>30% drop</th>
<th>20°C rise</th>
<th>40°C rise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.8</td>
<td>6.1</td>
<td>6.3</td>
<td>2.9</td>
<td>3.8</td>
</tr>
</tbody>
</table>

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**Document 685-1 Revised 03/11/16**

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This product may not be used in medical or high risk applications without prior Coilcraft approval.  
Specification subject to change without notice.  
Please check web site for latest information.

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Power Inductor – GA3199-AL

Inductance vs Current

Inductance vs Frequency

Inductance vs Current

Inductance vs Frequency

Recommended PC Board Layout

Dimensions are in inches

Dimensions are in mm

Parts manufactured prior to December 2011 may be marked differently.

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

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