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 phosph 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

### Specifications

<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>

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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Inductance vs Current

Inductance vs Frequency

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Inductance vs Frequency

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Recommended PC Board Layout

Dimensions are in inches

Dimensions are in mm

Dot provided for orientation

Parts manufactured prior to December 2011 may be marked differently.

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