PFC Boost Inductor

For ON Semiconductor
NCP1607 and NCP1608
PFC Controllers

- Designed to operate in 100 Watt applications.
- Referenced as $L_{\text{BOOST}}$ in application notes AND8353/D and AND8396/D.
- Auxiliary winding provides zero current detection (ZCD) information and can also supply power to the chipset.
- 1000 Vrms winding to winding isolation

Core material  Ferrite
Terminations  RoHS compliant tin-silver over tin over copper over copper-steel
Weight  45.6 g
Ambient temperature  $-40^\circ\text{C}$ to $+85^\circ\text{C}$ with Irms current, $+85^\circ\text{C}$ to $+125^\circ\text{C}$ with derated current
Storage temperature  Component: $-40^\circ\text{C}$ to $+85^\circ\text{C}$.
Tray 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)
Packaging  120 parts per tray
PCB washing  Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at Ipk (µH)</th>
<th>Inductance at Ipk (µH)</th>
<th>Ipk (A)</th>
<th>DCR max (Ohms)</th>
<th>Leverage inductance</th>
<th>Turns ratio</th>
<th>Irms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JA4224-AL</td>
<td>400</td>
<td>380</td>
<td>4.0</td>
<td>0.29</td>
<td>0.38</td>
<td>10 : 1</td>
<td>1.7</td>
</tr>
</tbody>
</table>

1. Inductance measured at 100 kHz, 0.1 V, 0 Adc using an Agilent/HP 4284A impedance analyzer or equivalent.
2. DCR measured on Cambridge Technology micro-ohmmeter.
3. Leakage inductance is for the primary and measured with pins 6 and 12 shorted.
4. Current that causes a $40^\circ\text{C}$ temperature rise from $25^\circ\text{C}$ ambient.
5. Electrical specifications at $25^\circ\text{C}$.

Irms Derating

![Irms Derating Graph]

- Recommended PC Board Layout
- Dimensions are in inches / mm

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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.