



**NEW!**

# PFC Boost Inductor

For ON Semiconductor  
NCP1607 and NCP1608  
PFC Controllers



- Designed to operate in 100 Watt applications.
- Referenced as  $L_{BOOST}$  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°C to +85°C with  $I_{rms}$  current, +85°C to +125°C with derated current

**Storage temperature** Component: -40°C to +85°C.  
Packaging: -40°C to +80°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

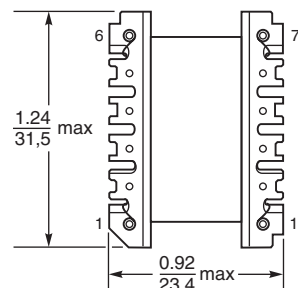
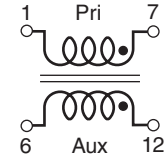
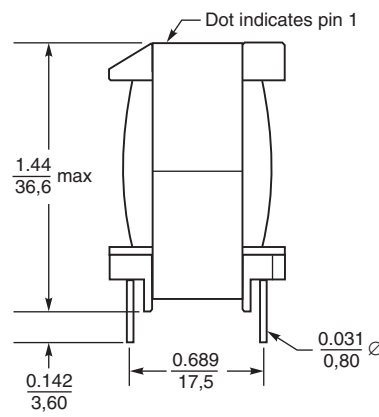
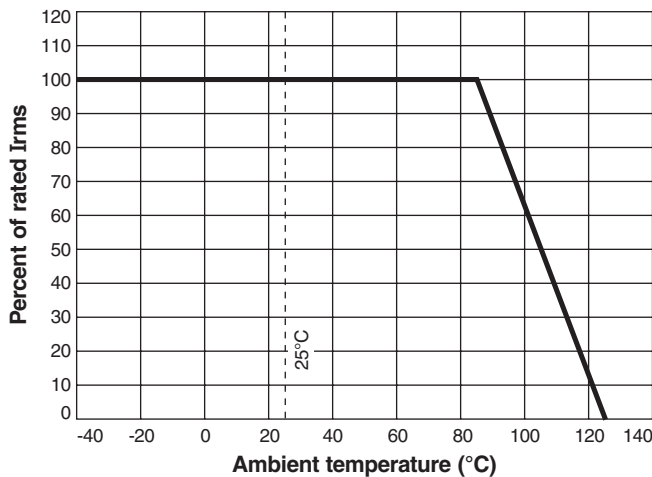
**Packaging** 120 parts per tray

**PCB washing** Only pure water or alcohol recommended

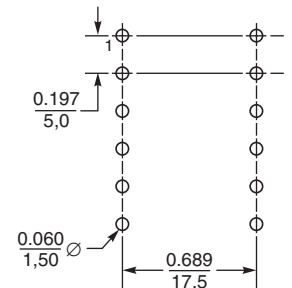
Part number	Inductance <sup>1</sup> ±10% (µH)	Inductance at $I_{pk}$ min (µH)	$I_{pk}$ (A)	DCR max (Ohms) <sup>2</sup>		Leakage inductance <sup>3</sup> max (µH)	Turns ratio pri : aux	Irms (A) <sup>4</sup>	
				pri (1-7)	aux (6-12)			20°C rise	40°C rise
JA4224-AL	400	380	4.0	0.29	0.38	115	10 : 1	1.7	2.8

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°C temperature rise from 25°C ambient.
5. Electrical specifications at 25°C.

## Irms Derating



## Recommended PC Board Layout



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



Specifications subject to change without notice.  
Please check our website for latest information.

Document 737 Revised 04/22/09

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>