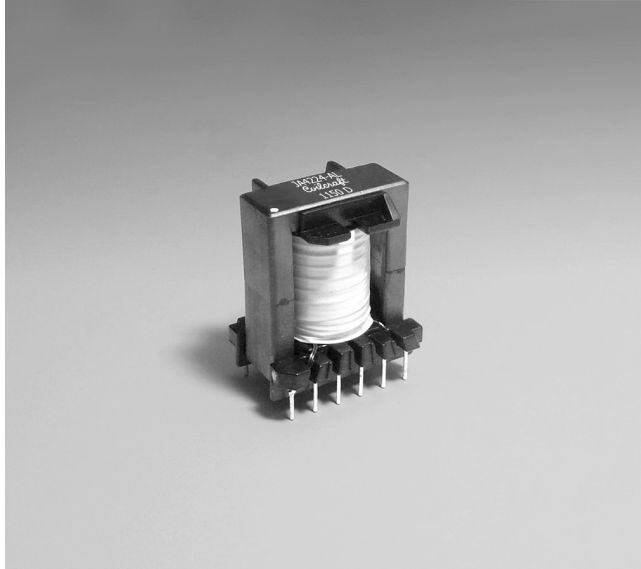




PFC Boost Inductor

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 Irms current, +85°C to +125°C with derated current

Storage temperature Component: -40°C to +85°C.
Tray 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

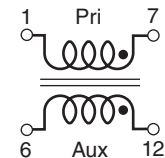
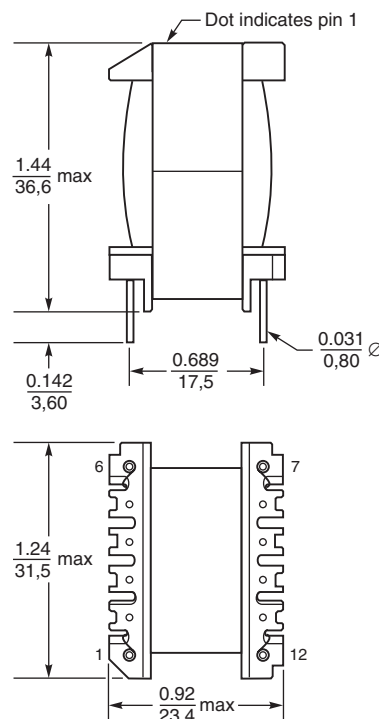
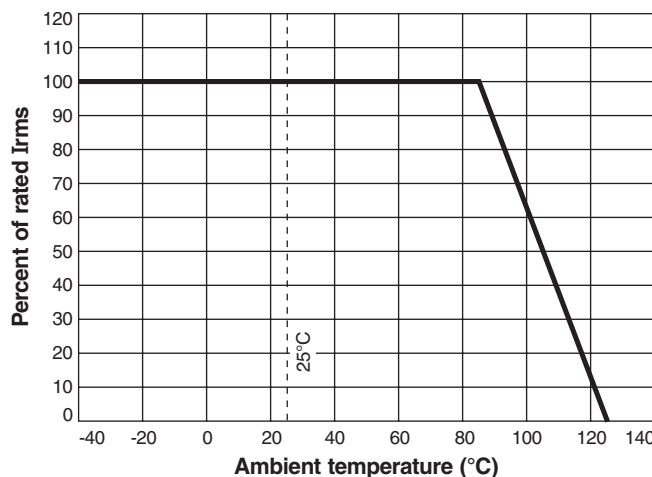
Packaging 120 parts per tray

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

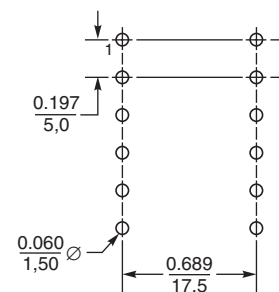
| Part number | Inductance ¹ ±10% (µH) | Inductance at Ipk min (µH) | Ipk (A) | DCR max (Ohms) ² | | Leakage inductance ³ max (µH) | Turns ratio pri : aux | Irms (A) ⁴ | |
|-------------|--------------------------------------|----------------------------------|------------|-----------------------------|------------|--|--------------------------|-----------------------|-----------|
| | | | | 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 $\frac{\text{inches}}{\text{mm}}$



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