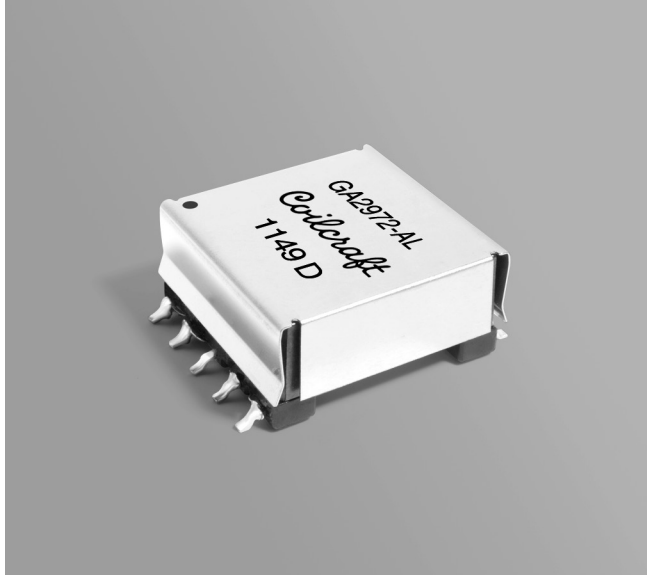


# SMT PFC Boost Inductor

For ON Semiconductor  
NCP1606 PFC Controller



- Designed to operate in 100 Watt applications.
- Referenced as  $L_{BOOST}$  in application note AND8282/D.
- Auxiliary winding provides zero current detection (ZCD) information and can also supply power to the NCP1606.
- 500 Vrms winding to winding and winding to core isolation

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 27 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{rms}$  current,  $+85^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with derated current

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .  
Tray packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

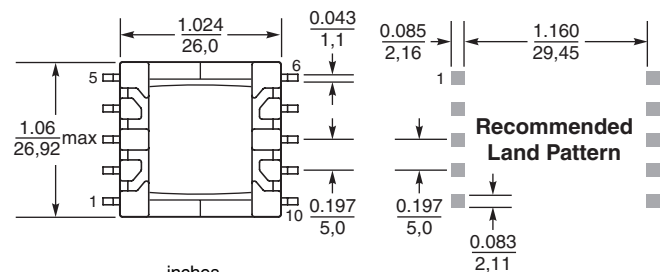
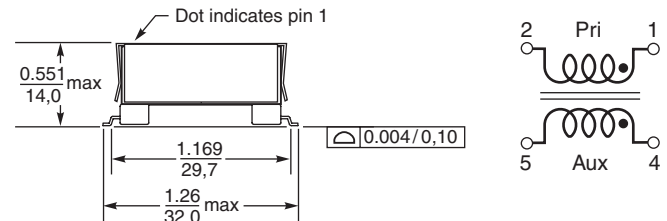
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Packaging** 24 parts per tray

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

Part number	Inductance <sup>1</sup> $\pm 10\%$ ( $\mu\text{H}$ )	DCR max (Ohms)		SRF <sup>2</sup> (MHz)	Turns ratio pri : aux	Isat (A) <sup>3</sup>			Irms (A) <sup>4</sup>	
		pri	aux			10% drop	20% drop	30% drop	20°C rise	40°C rise
GA2972-AL	330	0.30	0.35	1.2	8:1	4.2	4.5	4.8	1.7	2.3

1. Inductance measured at 100 kHz, 1.1 Vrms, 0 Adc using an Agilent/HP 4263B impedance analyzer or equivalent.
  2. SRF tested on an Agilent/HP 4192A.
  3. DC current at which the inductance drops the specified amount from its value without current.
  4. Current that causes the specified temperature rise from  $25^{\circ}\text{C}$  ambient.
  5. Electrical specifications at  $25^{\circ}\text{C}$ .
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

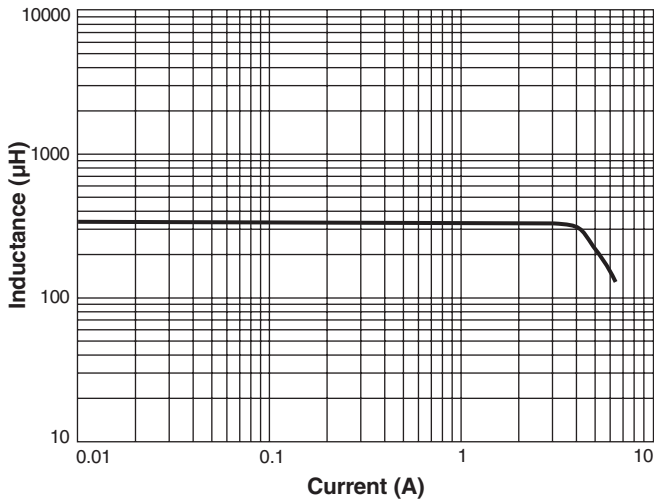


Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

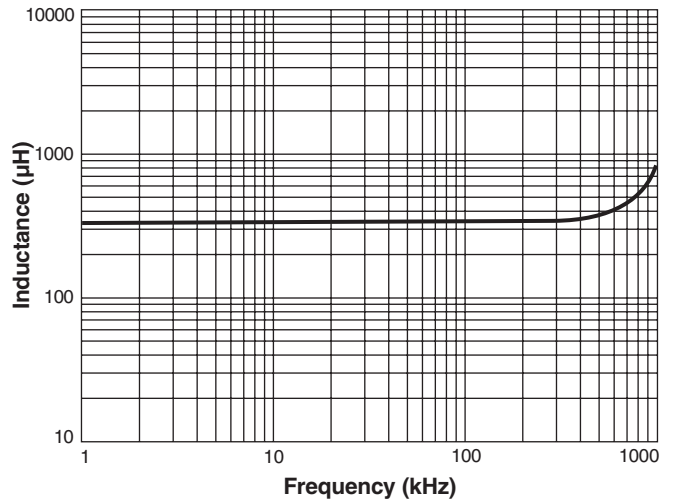


# SMT PFC Boost Inductor - GA2972-AL

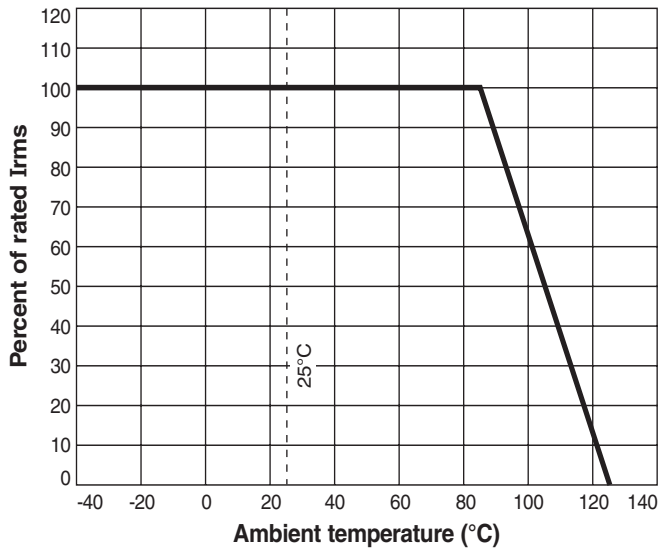
## L vs Current



## L vs Frequency



## I<sub>rms</sub> Derating



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