

# SMT Power Inductors

Power Beads - PA4059.XXXHLT Series



- Current Rating:** Over 48A<sub>pk</sub>
- Inductance Range:** 55nH
- Height:** 4.6mm Max
- Footprint:** 5.5mm x 5.7mm Max
- Halogen Free**

## Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

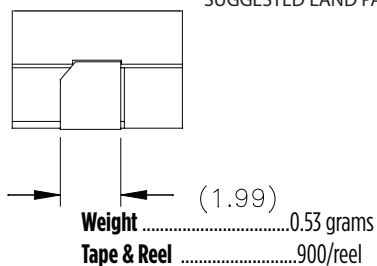
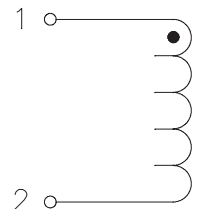
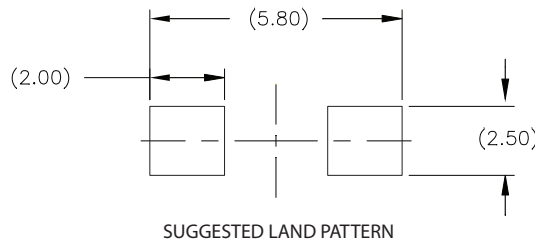
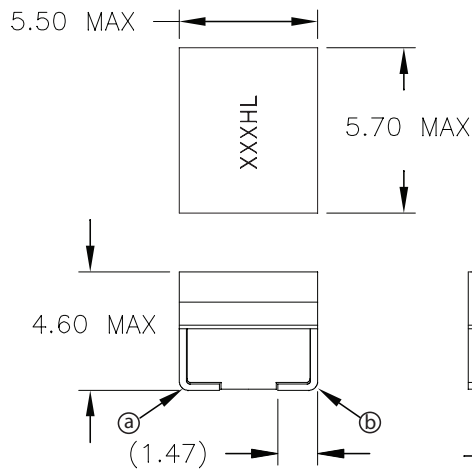
Part Number	Inductance <sup>1</sup> @ 0A <sub>DC</sub> (nH +/- 20%)	Inductance @ I <sub>rated</sub> (nH TYP)	I <sub>rated</sub> <sup>2</sup> (A <sub>DC</sub> )	DCR <sup>3</sup> (mΩ nominal)	Saturation Current <sup>4</sup> (A TYP)		Heating Current <sup>5</sup> (A TYP)
					25°C	100°C	
PA4059.550HLT	55	55	35	0.20 +/- 10%	61	48	35

- Notes:**
- Inductance is measured at 100kHz, 100mVrms.
  - The rated current as listed is either the saturation current or the heating current depending on which value is lower.
  - The nominal DCR is measured from point (a) to (b), as shown below on the mechanical drawing.
  - The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C, 100°C). This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
  - The heating current is the DC current which causes the part temperature to increase by approximately 40°C when used in a typical application.
  - In high volt\*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
  - The "T" suffix indicates the part is shipped in tape and reel packaging. Pulse complies to the industry standard type and reel specification EIA481. The tape and reel for this product has a width (W=16mm), pitch (Po=12mm) and depth (Ko=4.6mm).
  - The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

## Mechanical

## Schematic

PA4059.XXXHL



**Dimensions:** mm

Unless otherwise specified, all tolerances are ± 0,25

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

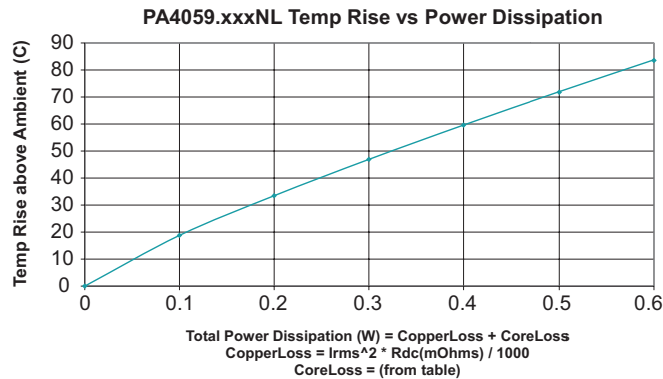
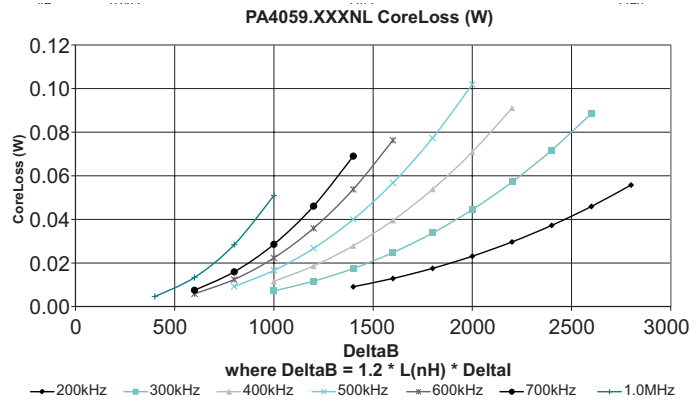
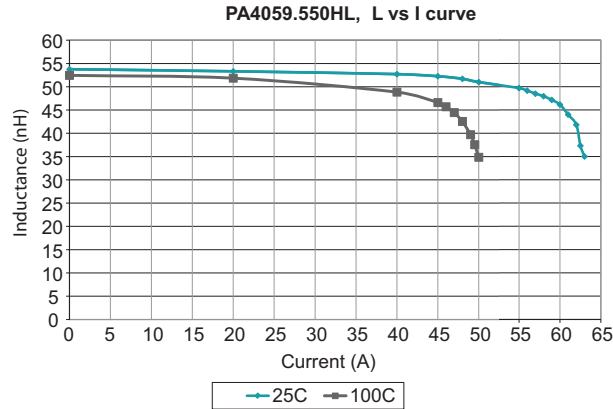
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