

SMT Power Inductors

Power Beads - PA4272.XXXHLT and PA4272.XXXAHLT Series



- Raised design allows Power Stage or FETs to fit under the inductor
- Current Rating:** Over 120Apk
- Inductance Range:** 100nH to 300nH
- Height:** 10.1mm Max and 10.6 mm Max(AHL)
- Footprint:** 12.8mm x 7.3mm Max
- Halogen Free

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +130°C⁷

Part ¹⁰ Number	Inductance ¹ @ 0A _{DC} (nH +/- 15%)	Inductance ² @ I _{rated} ³ (nH TYP)	I _{rated} ³ (ADC)	DCR ⁴ (mΩ +/-15%)	Saturation Current ⁵ (A TYP)			Heating Current ⁶ (A TYP)
					25°C	100°C	125°C	
PA4272.101HLT	100	100	70	0.17	100+	100+	83	70
PA4272.121HLT	120	120	70		94	75+	75	
PA4272.151HLT	150	146	68		80	68	61	
PA4272.301HLT	300	295	36		43	36	32	

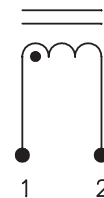
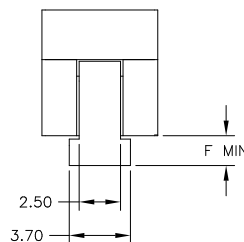
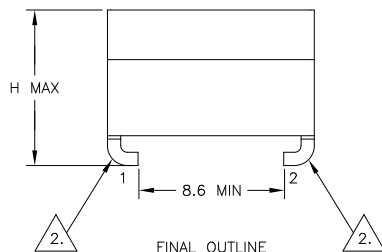
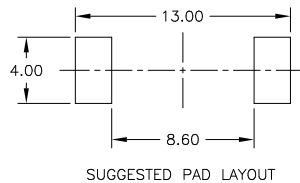
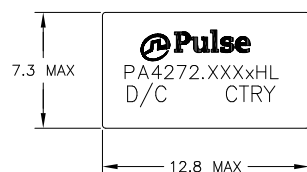
NOTES:

- Inductance measured at 100kHz, 100mVrms.
- Inductance at I_{rated} is the value of the inductance at 25°C at the listed rated current.
- The rated current as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.
- The nominal DCR is measured from point to point , 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.
- Parts with the HLT suffix are sold in tape and reel packaging. Pulse complies to industry standard tape and reel specification EIA-481. The tape and reel for this product has a width (W=24mm), pitch (Po=16mm) and depth (Ko=10.8mm). Samples of these parts can be ordered by removing the HLT suffix and replacing with HL.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- Initial HL suffix part was designed to provide 1.5mm Min of clearance under the body to accommodate the power stage. Part is also available with an AHL suffix (ie: PA4272.301HLT becomes PA4272.301AHLT) with 2.0mm Min of clearance.

Mechanical

Schematic

PA4272.XXXHL and PA4272.XXXAHL



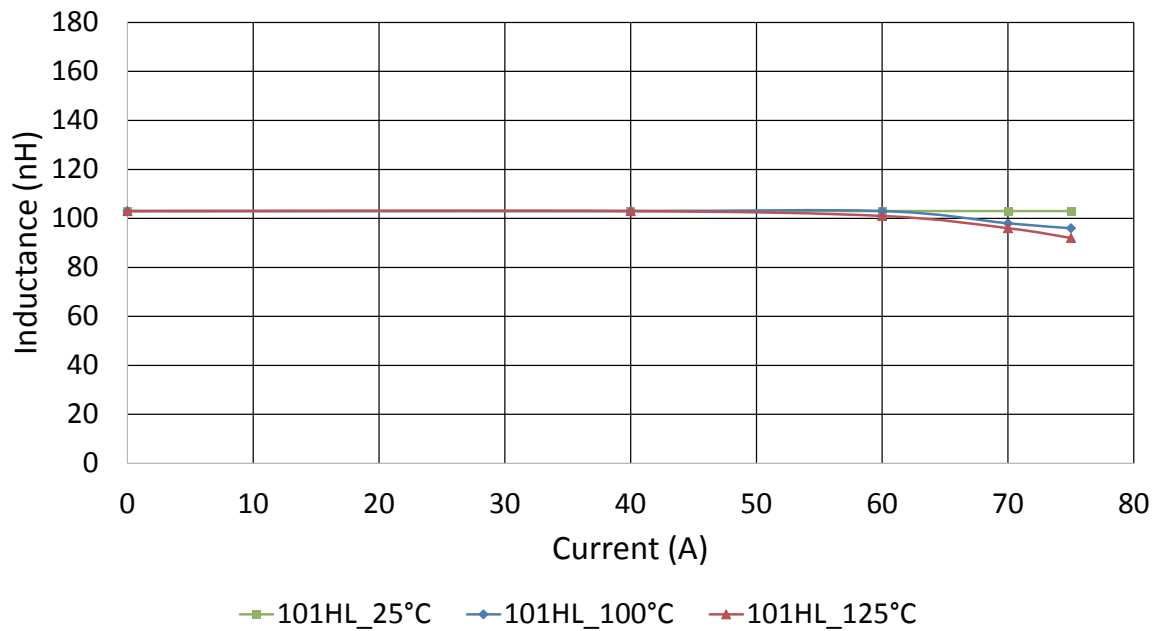
Weight 3.60 grams
Tape & Reel 300/reel

Dimensions: mm

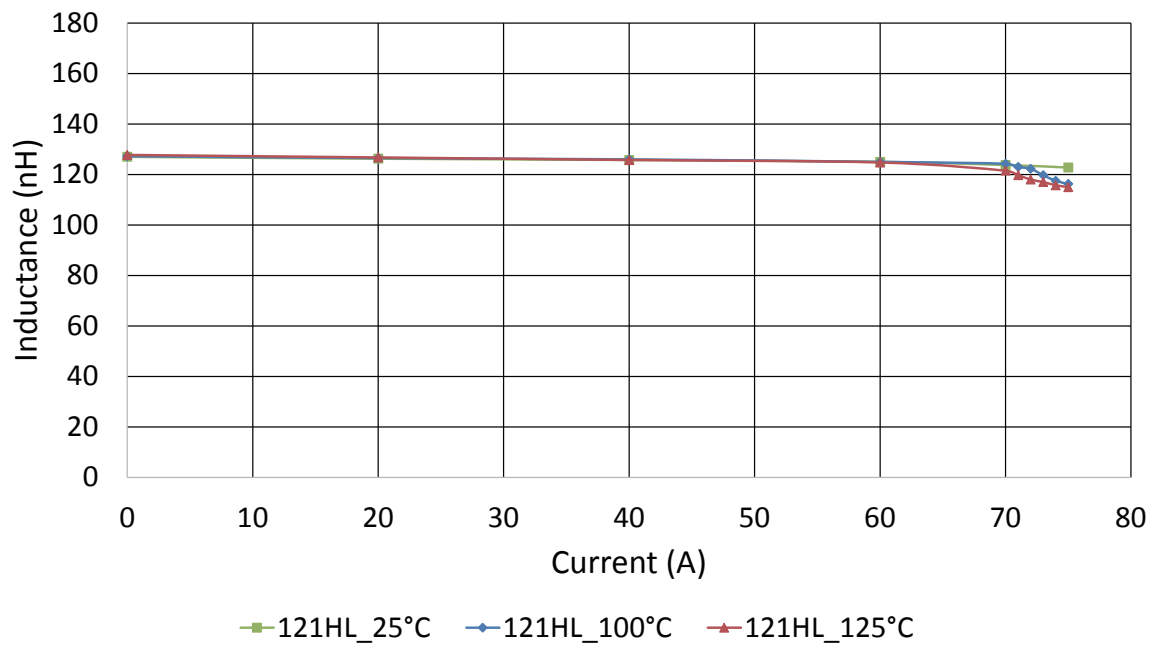
Unless otherwise specified,
all tolerances are ± 0.25

P/N	H	F
.XXXHL	10.1	1.5
.XXXAHL	10.6	2.0

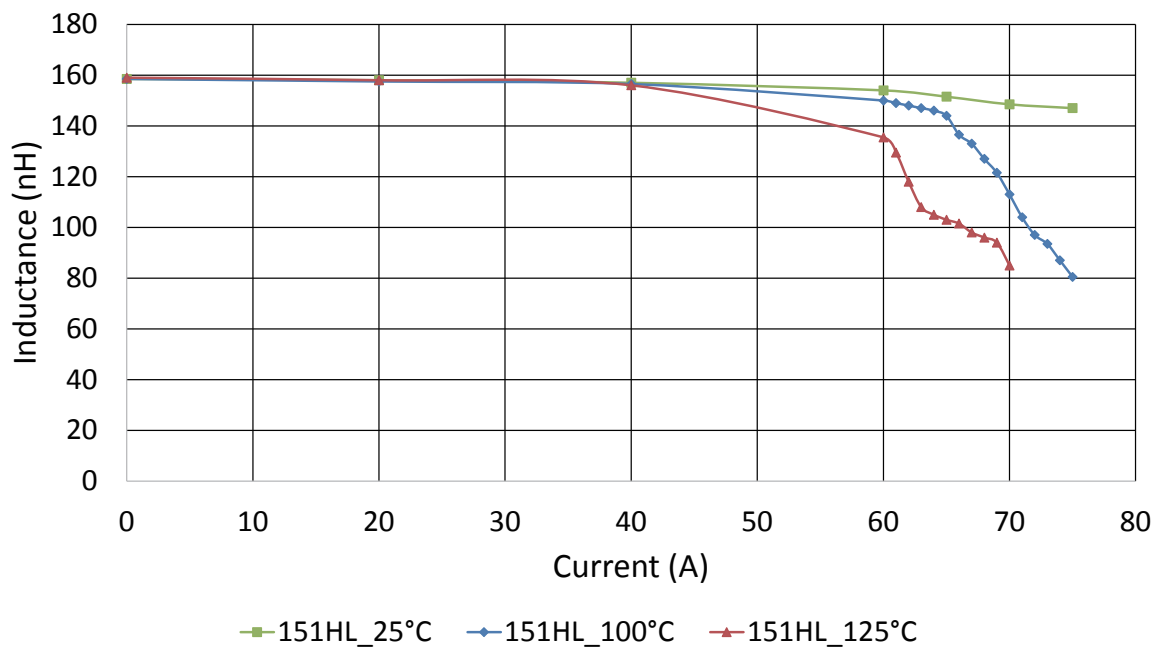
PA4272.101HL, LvsI, 25°C/100°C/125°C



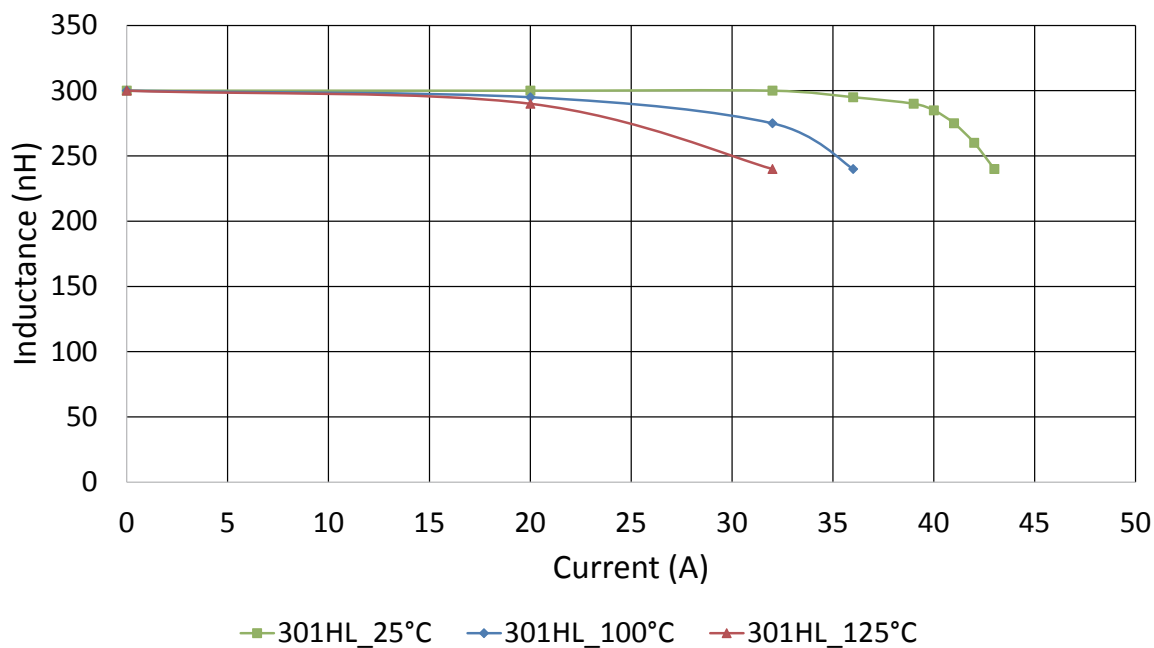
PA4272.121HL, LvsI, 25°C/100°C/125°C



PA4272.151HL, LvsI, 25°C/100°C/125°C

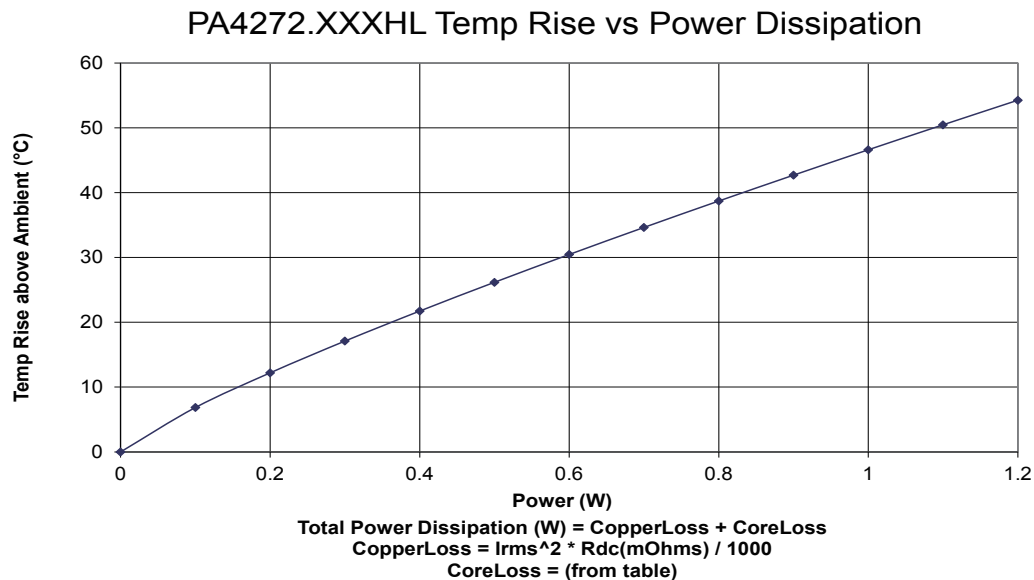
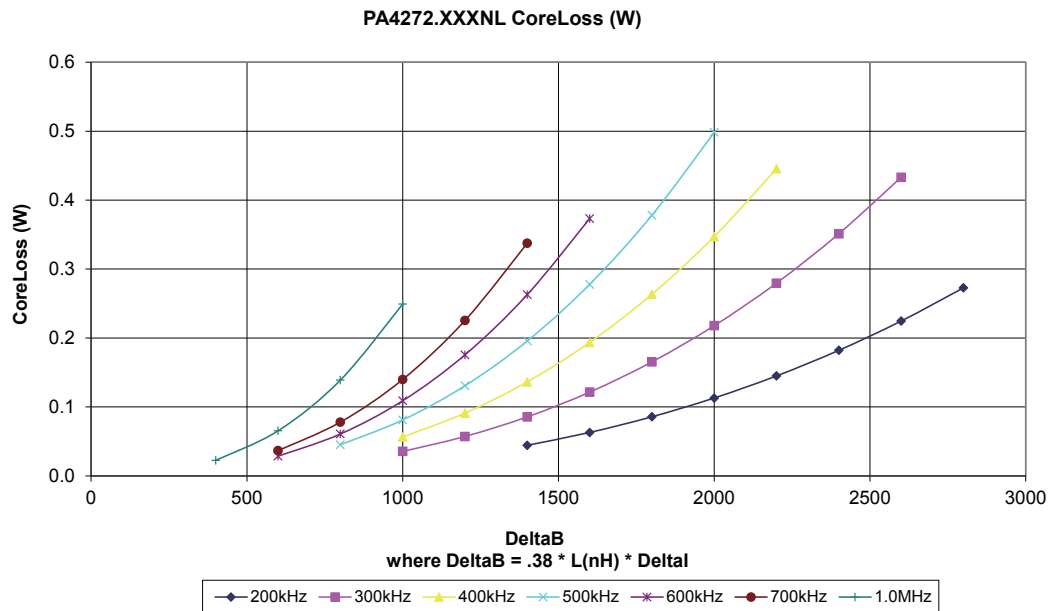


PA4272.301HL, LvsI, 25°C/100°C/125°C



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