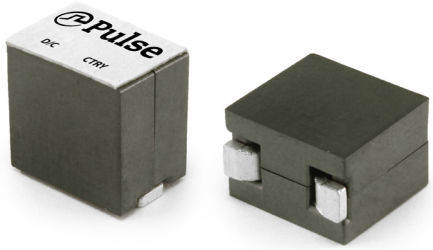
SMT Power Inductors

Power Beads - PA4390.XXXAHLT Series

Pulse Electronics

RoHS COMPLIANT



- ***Current Rating:*** *Over 40Apk*
- ***Inductance Range:*** *330nH*
- ***Height:*** *9.0mm Max*
- ***Footprint:*** *10.0mm x 6.5mm Max*
- *Halogen Free*

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +130°C [7]

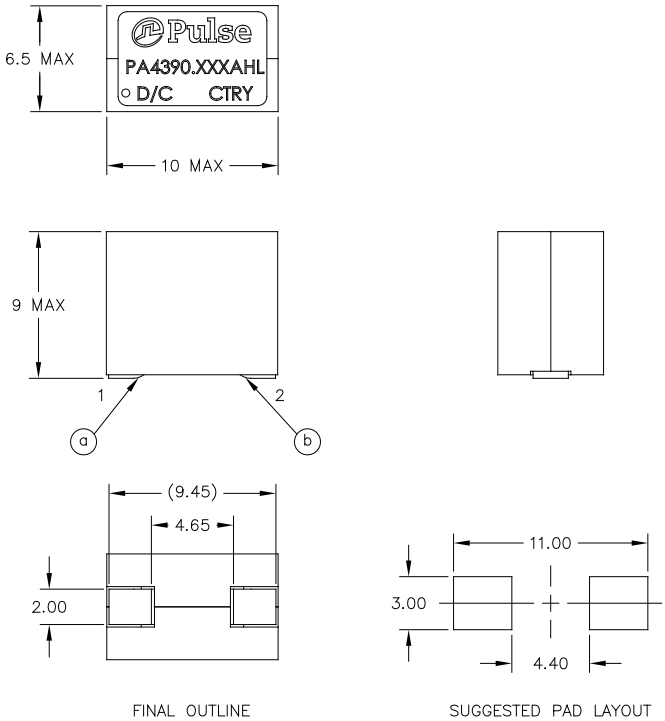
Part Number	Inductance[1] @ 0ADC (nH +/- 15%)	Inductance[2] @Irated (nH TYP)	Irated[3] (ADC)	DCR[4] (mΩ nominal)	Saturation Current[5] (A TYP)			Heating Current[6] (A TYP)
					25°C	100°C	125°C	
PA4390.331AHLT	330	310	32	0.40+/-10%	43	32	30	42

NOTES:

1. Inductance measured at 100kHz, 100mVrms.
2. Inductance at Irated is the value of the inductance at 25°C at the listed rated current.
3. 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.
4. The nominal DCR is measured from point ⓐ to point ⓑ, as shown below on the mechanical drawing.
5. The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C, 100°C , 125°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.
6. The heating current is the DC current which causes the part temperature to increase by approximately 40°C when used in a typical application.
7. In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may neccessitate 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.
8. Parts with the HLT suffix are sold in tape and reel packaging. Pulse complies to industry standard tape and reel specification EIA-481-D. The tape and reel for this product has a width (W=24mm), pitch (Po=16mm) and depth (Ko=9.2mm). Samples of these parts can be ordered by removing the HLT suffix and replacing with HL.
9. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Mechanical

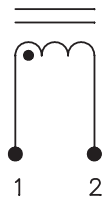
PA4390.XXXAHLT



FINAL OUTLINE

SUGGESTED PAD LAYOUT

Schematic



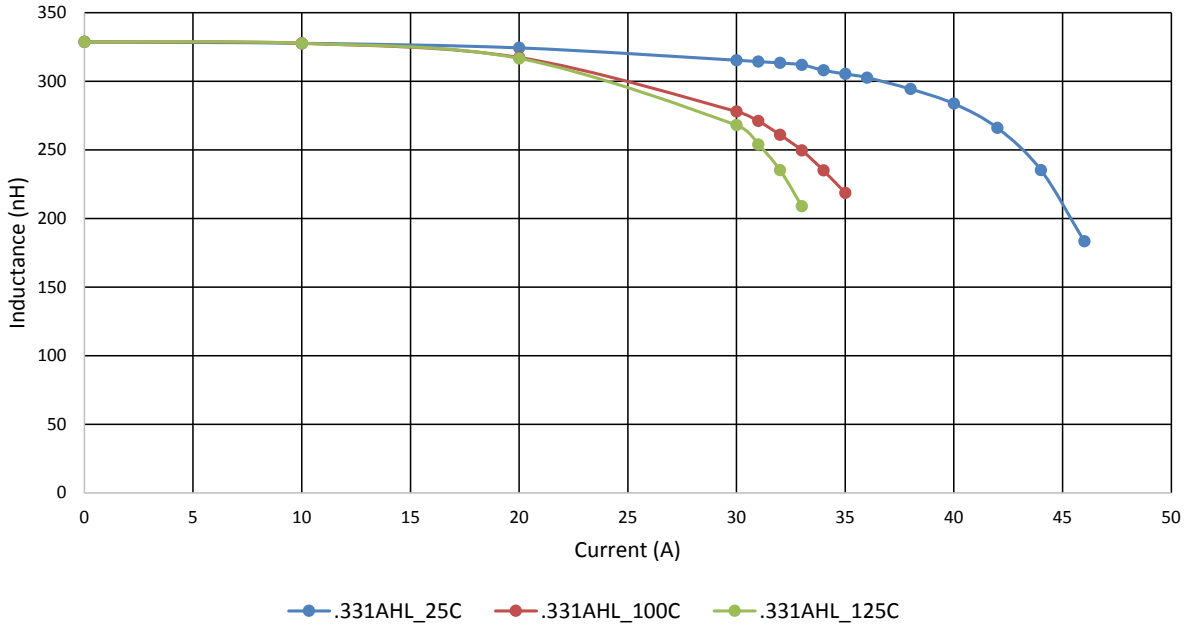
Weight 2.54/grams
Tape & Reel 350/reel

Dimensions: mm

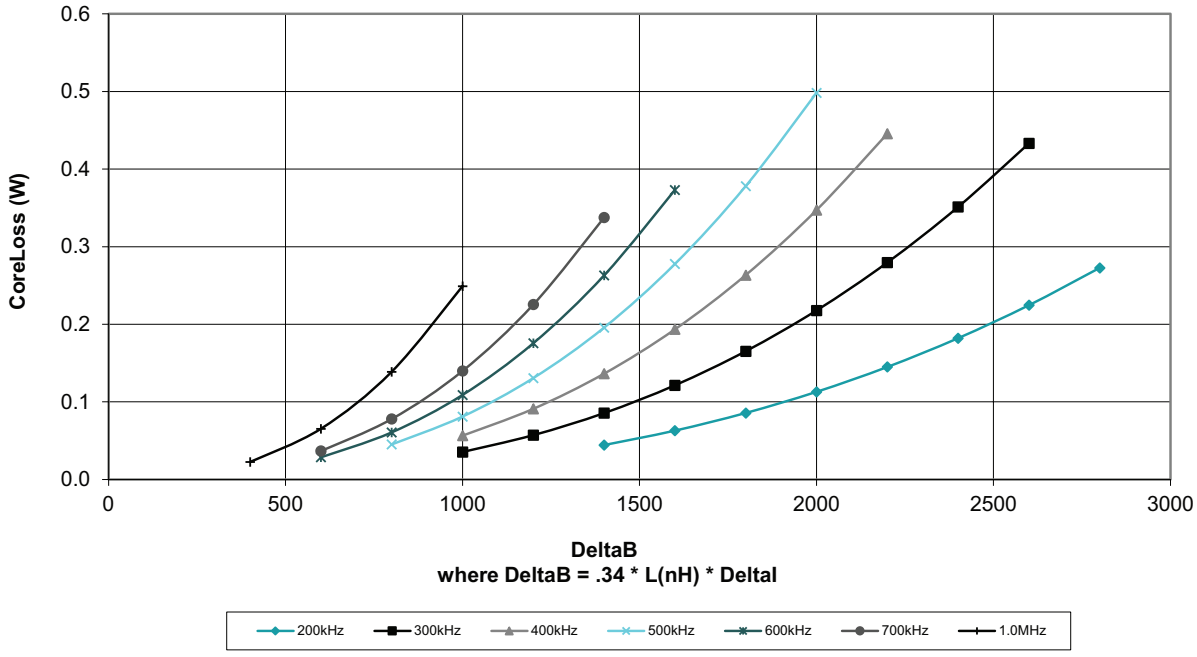
Unless otherwise specified, tolerances are

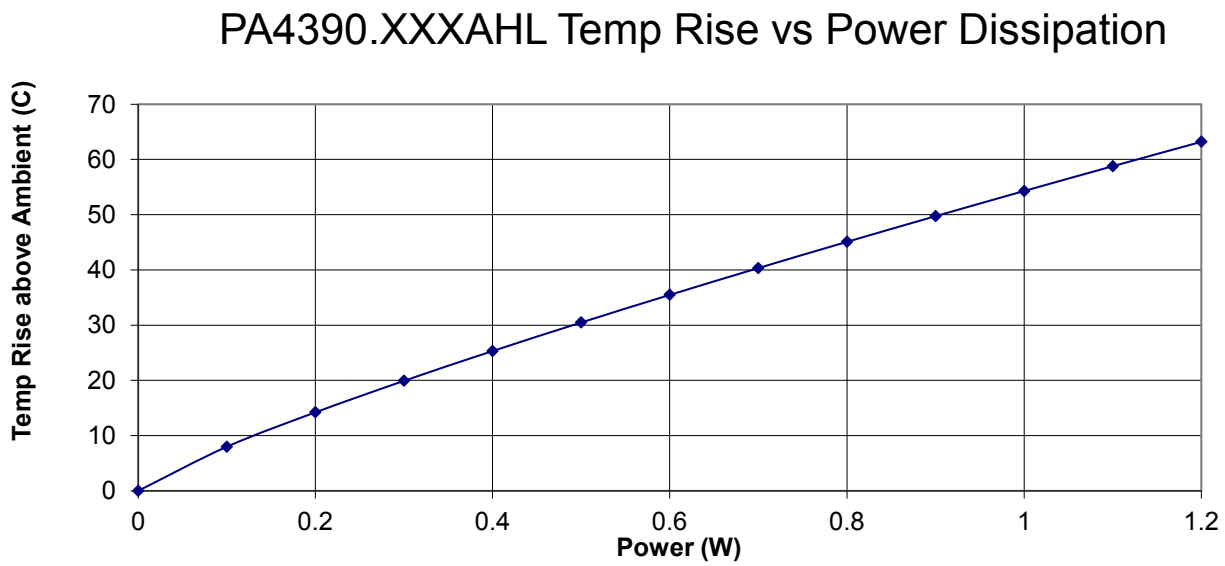
.x ± 0.2
.xx ± 0.10

PA4390.XXXAHL, LvsI, 25C/100C/125C



PA4390.XXXAHLT CoreLoss (W)





Total Power Dissipation (W) = CopperLoss + CoreLoss
CopperLoss = Irms^2 * Rdc(mOhms) / 1000
CoreLoss = (from table)

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