

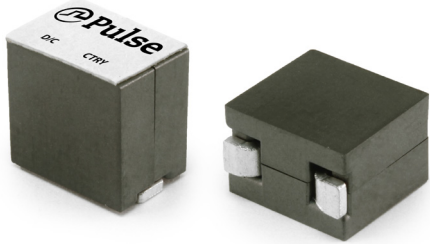


**THE DATASHEET OF
PA4390.331AHLT**



SMT Power Inductors

Power Beads - PA4390.XXXAHLT Series



- Current Rating:** Over 40A_{pk}
- 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°C⁷

Part Number	Inductance ¹ @ 0A _{DC} (nH +/- 15%)	Inductance ² @ I _{rated} (nH TYP)	I _{rated} 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

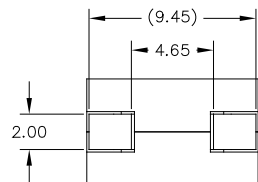
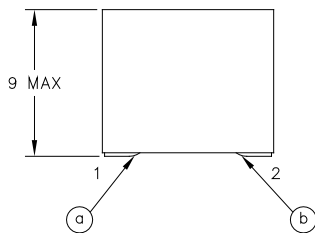
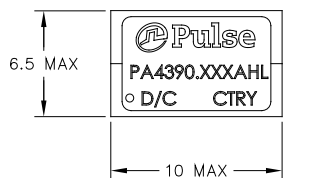
NOTES:

- 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 (a) to point (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, 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.
- 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-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.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

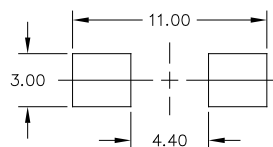
Mechanical

Schematic

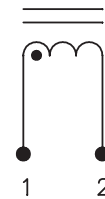
PA4390.XXXAHLT



FINAL OUTLINE



SUGGESTED PAD LAYOUT



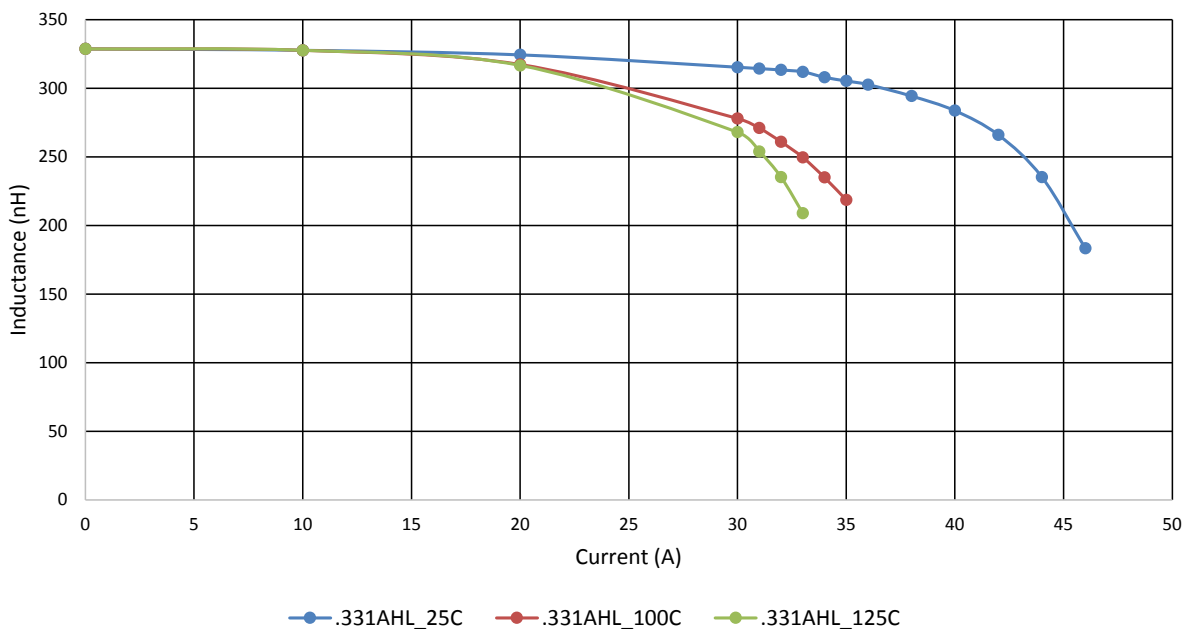
Weight 2.54/grams
Tape & Reel 350/reel

Dimensions: mm

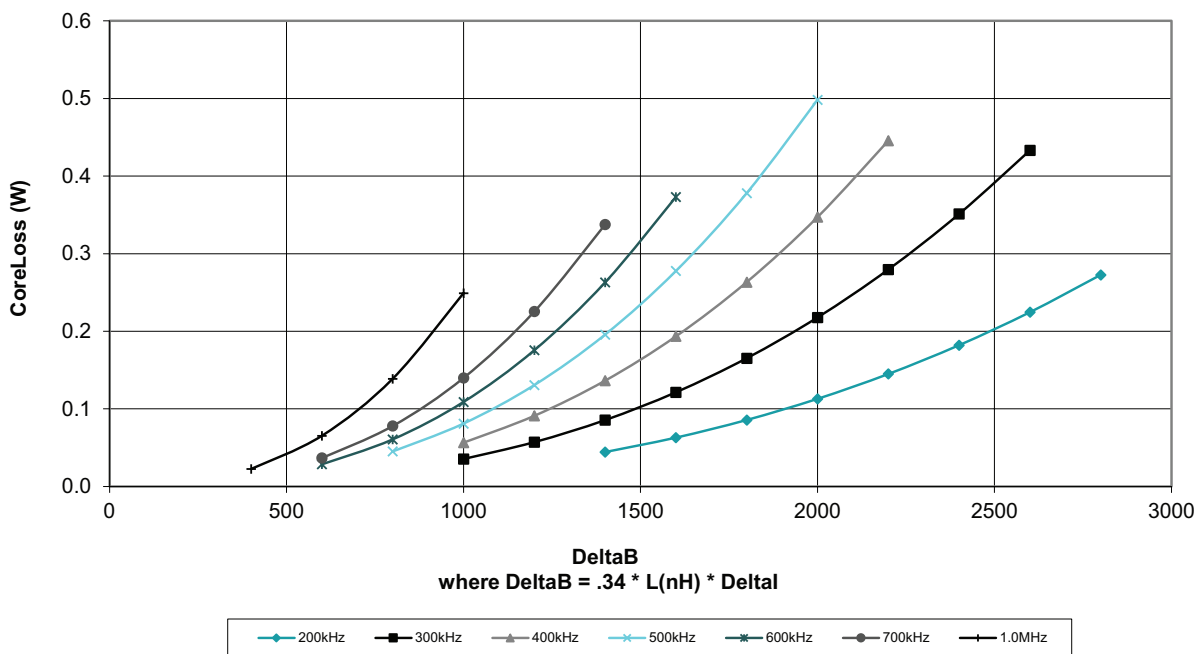
Unless otherwise specified, tolerances are

- .x ± 0.2
- .xx ± 0.10

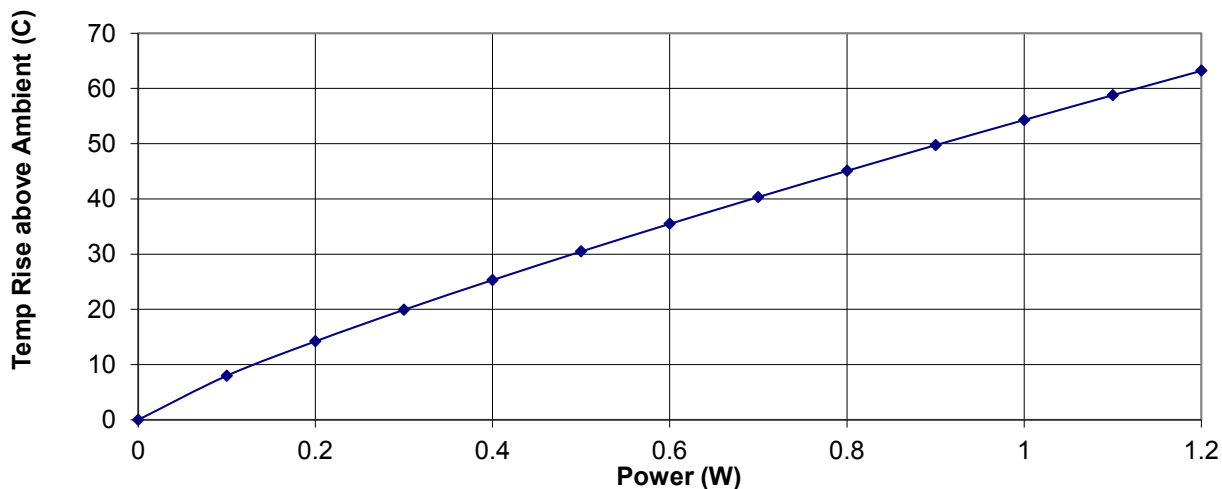
PA4390.XXXAHL, Lvsl, 25C/100C/125C



PA4390.XXXAHLT CoreLoss (W)



PA4390.XXXAHLT Temp Rise vs Power Dissipation



$$\text{Total Power Dissipation (W)} = \text{CopperLoss} + \text{CoreLoss}$$

$$\text{CopperLoss} = \text{Irms}^2 * \text{Rdc(mOhms)} / 1000$$

$$\text{CoreLoss} = (\text{from table})$$

For More Information

Pulse Worldwide Headquarters

12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057

Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China

Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

3F, No. 198
Zhongyuan Road
Zhongli City
Taoyuan County 320
Taiwan R. O. C.

Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2016. Pulse Electronics, Inc. All rights reserved.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View PA4390.331AHLT on WIN SOURCE](#)

 [Pulse Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management