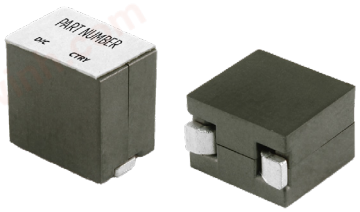
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SMT Power Inductors

Power Beads - PA4390.XXXHLT Series

Pulse A YAGEO Company





- ***Current Rating:*** *Over 100Apk*
- ***Inductance Range:*** *100nH to 330nH*
- ***Height:*** *10.0mm Max*
- ***Footprint:*** *10.0mm x 7.0mm Max*

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

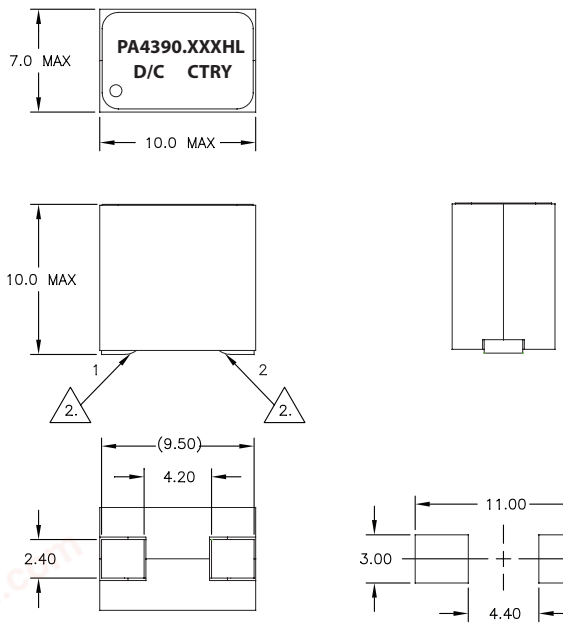
Part Number	Inductance[1] @ 0ADC (nH +/- 15%)	Inductance[2] @Irated (nH TYP)	Irated[3] (ADC)	DCR[4] (mΩ nominal)	Saturation Current[5] (A TYP)			Heating Current[6] (A TYP)
					25°C	100°C	125°C	
PA4390.101HLT	100	100	68	0.185+/-10%	113	86	81	68
PA4390.121HLT	120	120	68		94	81	78	
PA4390.151HLT	150	150	68		80	75	73	
PA4390.221HLT	220	190	52		70	52	48	
PA4390.331HLT	330	310	33		43	33	31	

NOTES:

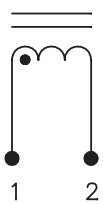
1. Inductance measured at 100kHz, 100mVrms.
2. Inductance at Irated is the value of the inductance at 25°C at the listed rated current.
3. The rated current as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.
4. The nominal DCR is measured at point 2., 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). 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.
   The tape and reel for this product has a width (W=24mm), pitch (Po=16mm) and depth (Ko=10.5mm). 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.XXXHLT



Schematic



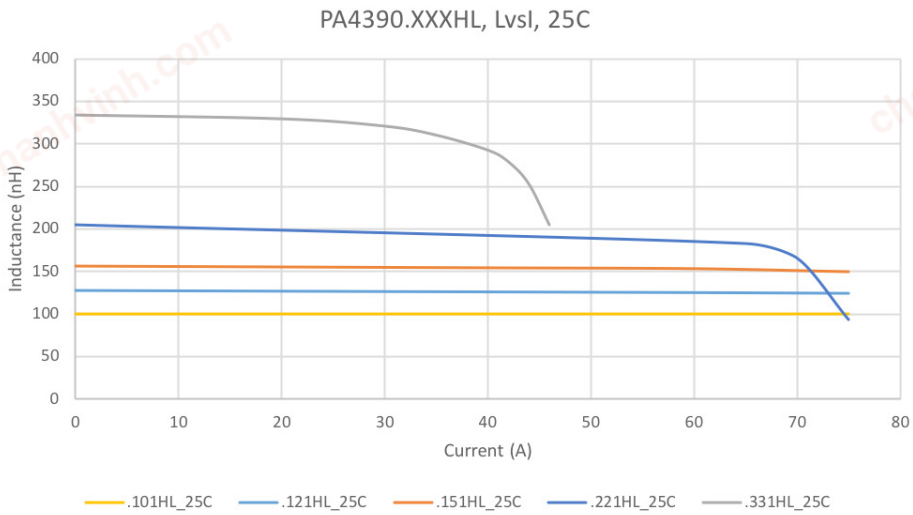
Weight: 2.74grms

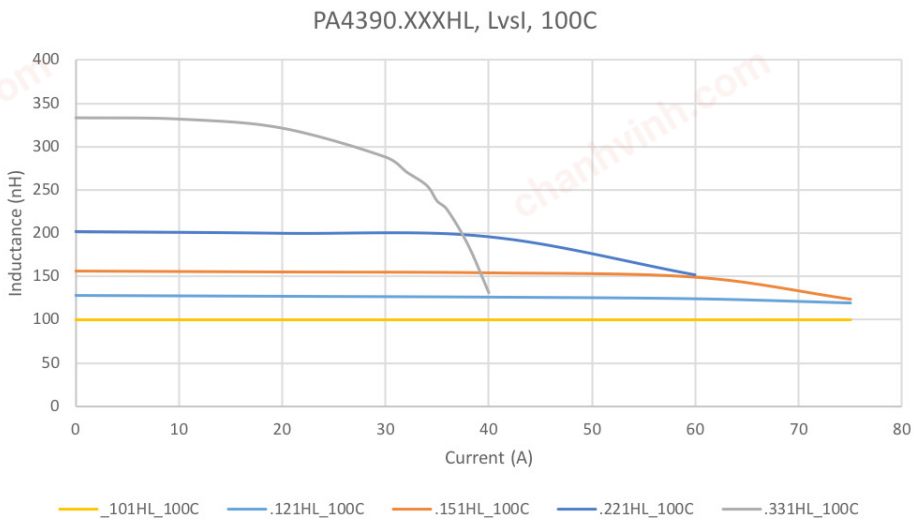
Tape &Reel: ..... 300/ Reel

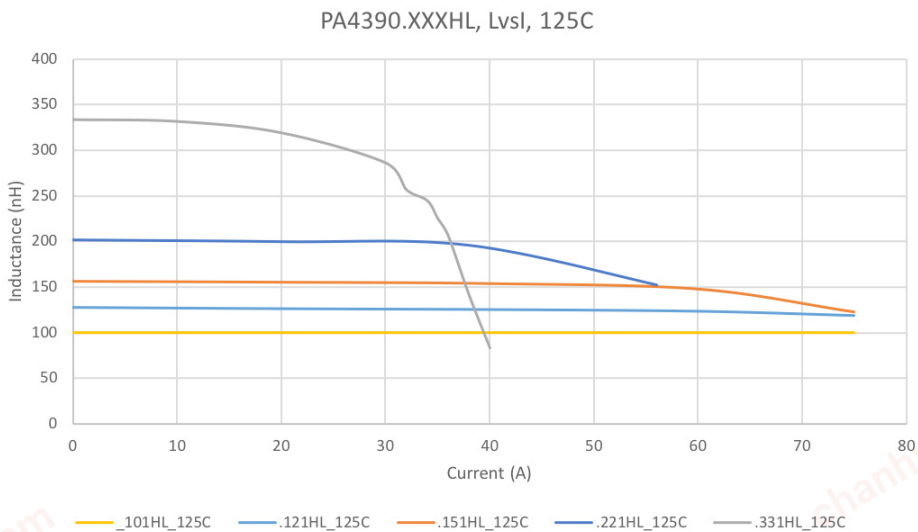
Dimensions: mm

Unless otherwise specified , all tolerances are ± 0.25

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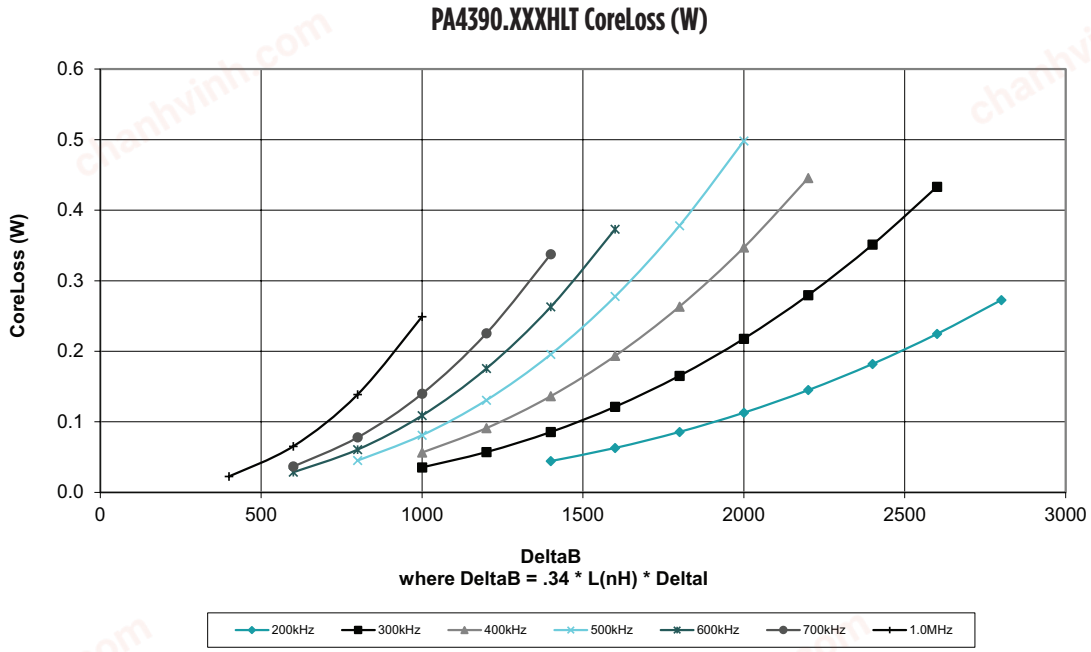


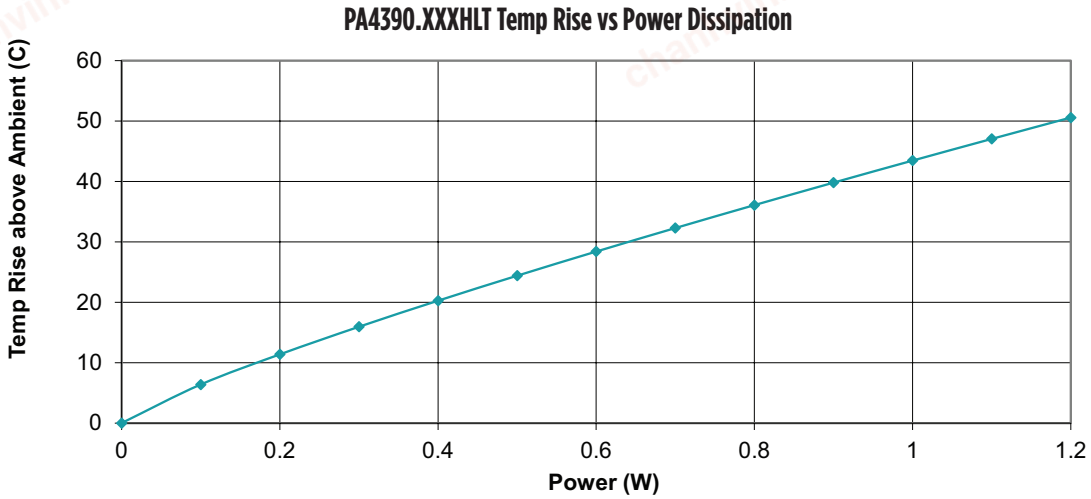


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Total Power Dissipation (W) = CopperLoss + CoreLoss
CopperLoss = Irms^2 * Rdc(mOhms) / 1000
CoreLoss = (from table)

For More Information

Pulse Worldwide Headquarters
15255 Innovation Drive Ste 100
San Diego, CA 92128
U.S.A.
Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany
Tel: 49 2354 777 100
Fax: 49 2354 777 168

Pulse China Headquarters
Pulse Electronics (ShenZhen) CO., LTD
D708, Shenzhen Academy of
Aerospace Technology,
The 10th Keji South Road,
Nanshan District, Shenzhen,
P.R. 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
3 Fraser Street
0428 DUO Tower
Singapore 189352
Tel: 65 6287 8998
Fax: 65 6280 0080

Pulse North Asia
1F., No.111 Xiyuan Rd
Zhongli City
Taoyuan City 32057
Taiwan (R.O.C)
Tel: 886 3 4356768
Fax: 886 3 4356820

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