SMT Power Inductor

Power Beads - PA4990 Series











Height: 12mm Max

Footprint: 10.0mm x 6.0mm Max

© Current Rating: Over 100Apk

Inductance Range: 100nH to 330nH

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C 7											
Part Number	Inductance ¹ @ OA _N	Inductance² @Irated (nH TYP)	Irated ³ (ADC)	DCR⁴ (mΩ)	Sa	turation Current (A TYP)	Heating Current ⁶				
	(nH ±15%)				25°C	100°C	125°C	(A TYP)			
PA4990.101HLT	100	100	77		125	105	95				
PA4990.121HLT	120	120	77	0.125±10%	105	88	81	77			
PA4990.151HLT	150	140	77	U.IZ3±10%	83	78	71] "			
PA4990.331HLT	330	300	32		40	32	28				

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.
- 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 ① to 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.
- 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.

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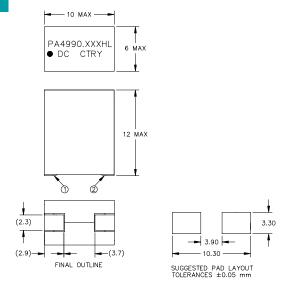
Power Beads - PA4990 Series

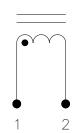
2



Mechanical Schematic

PA4990.XXXHLT





 Weight:

 2.65grms

 Tape &Reel:

 270 Reel

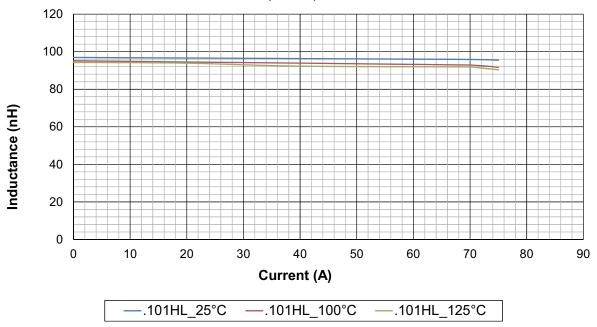
Dimensions: mm

Unless otherwise specified, all tolerances are ± 0.25

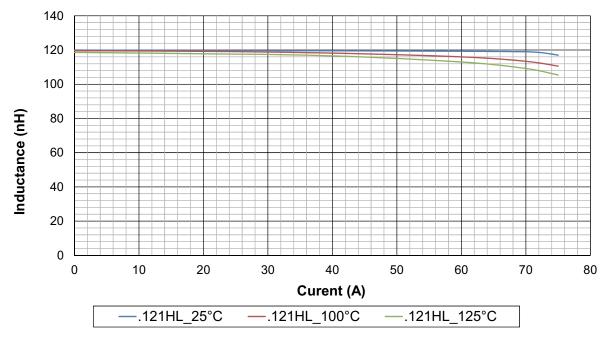
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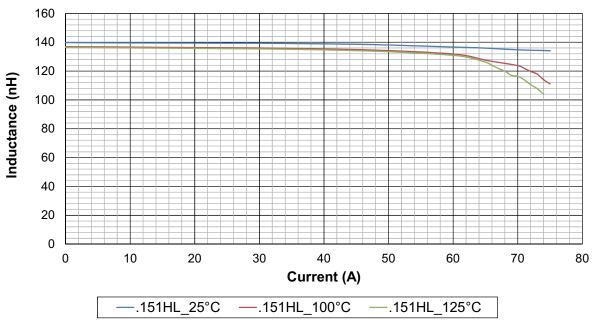


PA4990.121HL, LvsI, 25 °C/ 100°C/ 125°C

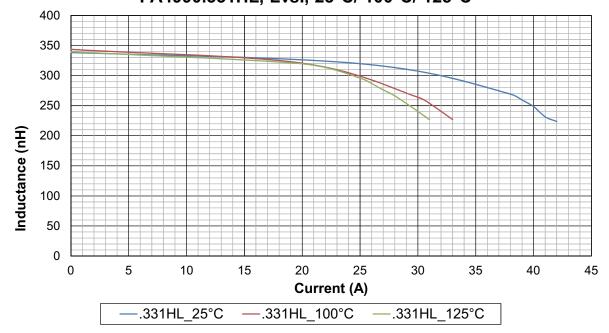




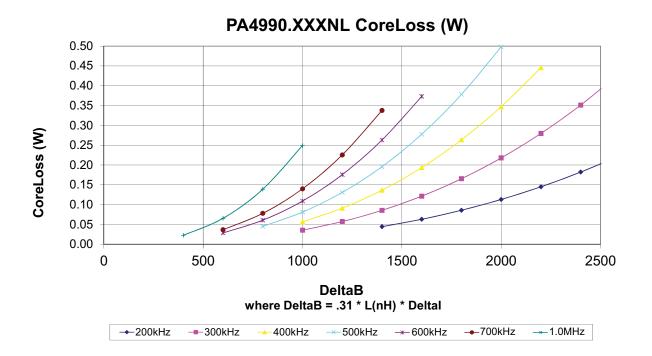




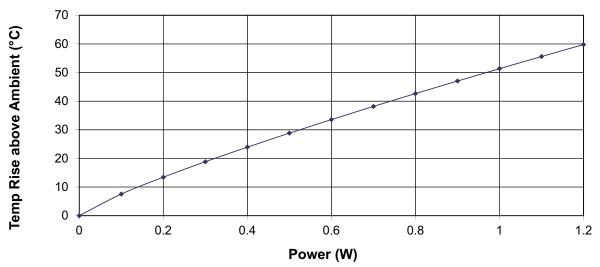
PA4990.331HL, Lvsl, 25°C/ 100°C/ 125°C







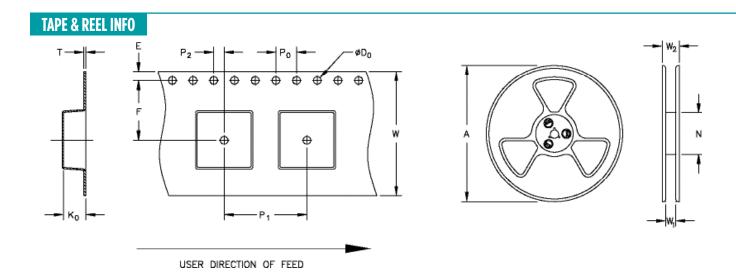




Total Power Dissipation (W) = CopperLoss + CoreLoss CopperLoss = Irms^2 * Rdc(mOhms) / 1000...

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SURFACE MOUNTING TYPE, REEL/TAPE LIST														
ТҮРЕ	REEL SIZE (mm)			TAPE SIZE (mm)									QTY	
	A	W ₁	W ₂	N	E	F	D _o	P0	P ₁	P ₂	W	Ţ	K _o	PCS/REEL
PA4990.XXXHLT	Ø330	24.4	30.4	100	1.75	11.5	1.5	4	16	2	24	0.6	12.3	270

For More Information:

Americas - prodinfo_power@pulseelectronics.com | Europe - power-apps-europe@pulseelectronics.com | Asia - power-apps-asia@pulseelectronics.com

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