SMT Power Inductors

Power Beads - PA5161.XXXHLT Series













Current Rating: Over 125Apk

Pinductance Range: 70nH to 150nH

@ Height: 10.4mm Max

Prootprint: 9.6mm x 6.4mm Max

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +130°C 7											
Part Number	Inductance ¹ @ 0A _{DC} (nH +/- 15%)	Inductance ² @Irated (nH TYP)	Irated³ (ADC)	$\begin{array}{c} \operatorname{DCR}^4\\ (m\Omega \operatorname{nominal})\end{array}$	Saturation Current ⁵ (A TYP)			Heating Current ⁶ (A TYP)			
					25°C	100°C	125°C	(ATTP)			
PA5161.700HLT	70	70	78	0.145+/-5%	125+	125+	125+	78			
PA5161.800HLT	80	80	78		125+	125+	120				
PA5161.101HLT	100	100	78		113	96	89				
PA5161.121HLT	120	120	78		102	86	81				
PA5161.151HLT	150	120	64		76	64	60				

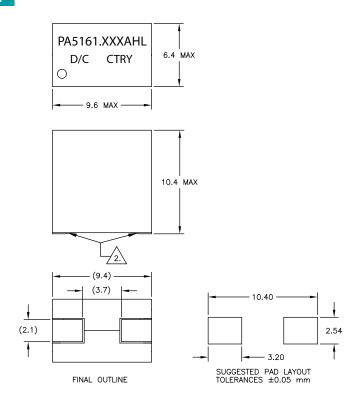
NOTES:

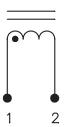
- 1. Inductance measured at 100kHz, 100mVrms.
- 2. Inductance at Irated is the value of the inductance at 25°C at the listed rated current.
- The rated current as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.
- 4. The nominal DCR is measured at point <u>/</u>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.
 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 Schematic

PA5161.XXXHLT





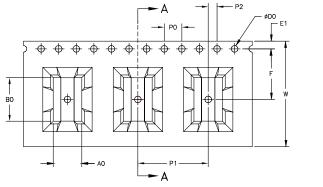
Weight: 2.65grms

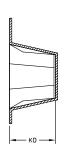
Tape & Reel: 300/ Reel

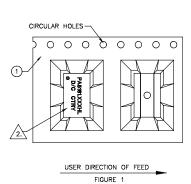
Dimensions: mm

Unless otherwise specified , all tolerances are ± 0.25

TAPE & REEL INFO

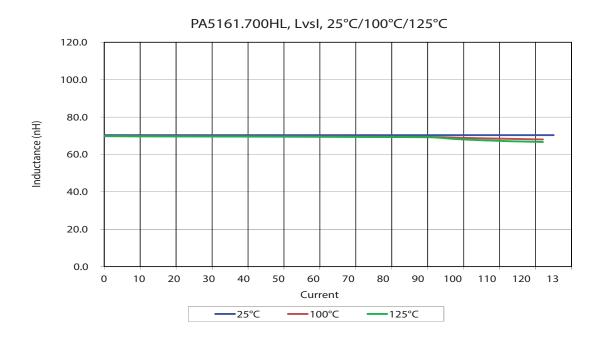


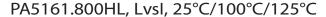


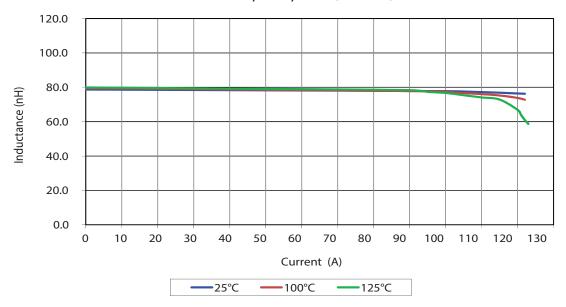


SURFACE MOUNTING TYPE, REEL/TAPE LIST											
DATICI VVVIIIT	W ± 0.3	A0 ± 0.1	B0 ± 0.1	K0 ± 0.1	P1 ± 0.1	F ± 0.1	PCS/REEL				
PA5161.XXXHLT	24.0	6.5	9.9	10.4	16.0	11.5	300				



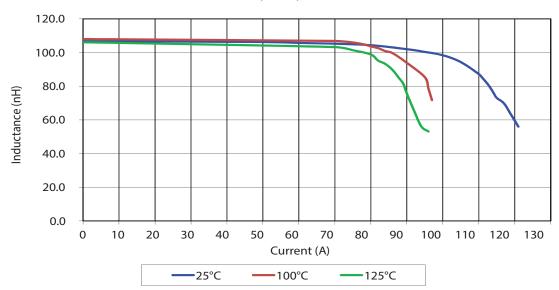




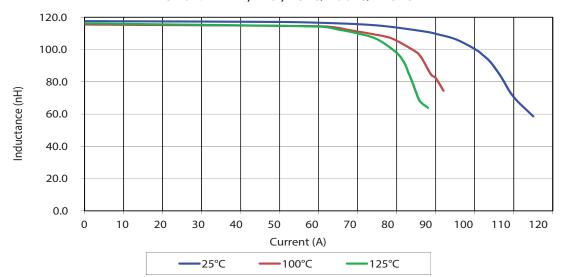




PA5161.101HL, Lvsl, 25°C/100°C/125°C

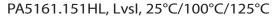


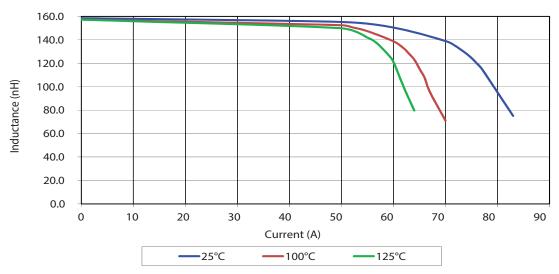
PA5161.121HL, Lvsl, 25°C/100°C/125°C



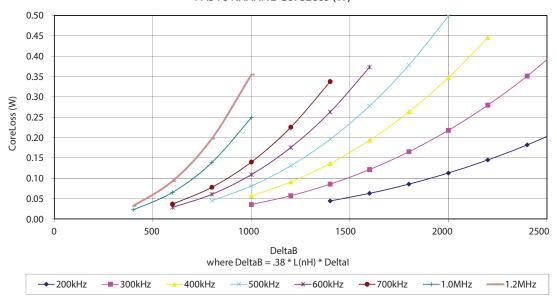
SMT Power Inductors

Power Beads - PA5161.XXXHLT Series





PA5161.XXXNL CoreLoss (W)



For More Information:

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

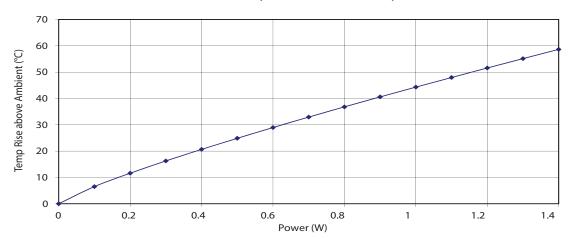
Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. Pulse Electronics, Inc. All rights reserved.



SMT Power Inductors

Power Beads - PA5161.XXXHLT Series

PA5161.XXXHL Temp Rise vs Power Dissipation



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

For More Information:

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

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, 2020. Pulse Electronics, Inc. All rights reserved.

