

# PA5041.151HLT Datasheet

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DiGi Electronics Part Number PA5041.151HLT-DG

Manufacturer Pulse Electronics

Manufacturer Product Number PA5041.151HLT

Description FIXED IND 150NH 40A 0.29MOHM SMD

Detailed Description 150 nH Shielded Inductor 40 A 0.29mOhm Nonstan

darc



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DiGi is a global authorized distributor of electronic components.



# **Purchase and inquiry**

Manufacturer Product Number:	Manufacturer:
PA5041.151HLT	Pulse Electronics
Series:	Product Status:
PA5041	Active
Type:	Material - Core:
Inductance:	Tolerance:
150 nH	±10%
Current Rating (Amps):	Current - Saturation (Isat):
40 A	72A
Shielding:	DC Resistance (DCR):
Shielded	0.29mOhm
Q @ Freq:	Frequency - Self Resonant:
Ratings:	Operating Temperature:
	-40°C ~ 130°C
Inductance Frequency - Test:	Features:
100 kHz	
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
	0.283" L x 0.264" W (7.20mm x 6.70mm)
Height - Seated (Max):	
0.441" (11.20mm)	

# **Environmental & Export classification**

8504.50.8000

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	

Power Beads - PA5041 Series







Current Rating: Over 89Apk

Inductance Range: 120nH to 330nH

Height: 11mm Max

Pootprint: 7.2mm x 6.7mm Max

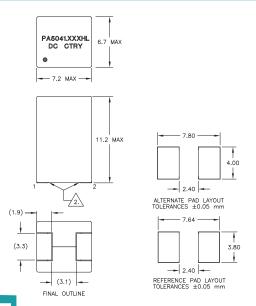
Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C <sup>7</sup>									
Part Number	Inductance <sup>1</sup> @ OA <sub>DC</sub>	Inductance <sup>2</sup> @Irated (nH TYP)	Irated <sup>3</sup> (ADC)	${ m DCR}^4 \ ({ m m}\Omega)$		n Current <sup>5</sup> TYP)	Heating Current <sup>6</sup>		
	(nH ±10%)				25°C	100°C	(A TYP)		
PA5041.121HLT	120	120	40		75	74			
PA5041.151HLT	150	150	40	0.20.100/	72	63	40		
PA5041.221HLT	220	220	40	0.29±10%	50	42	40		
PA5041.331HLT	330	300	22		28	22			

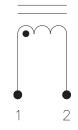
### NOTES:

- 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 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.
   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

### PA5041.XXXHLT



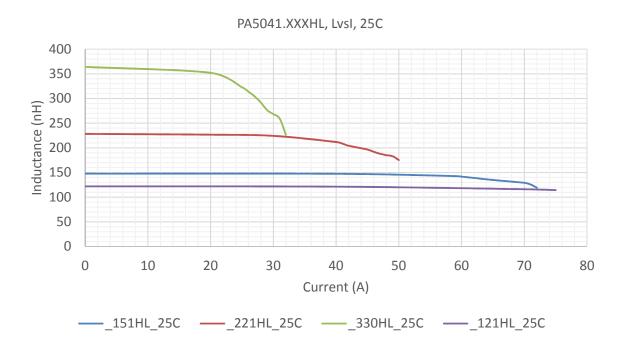


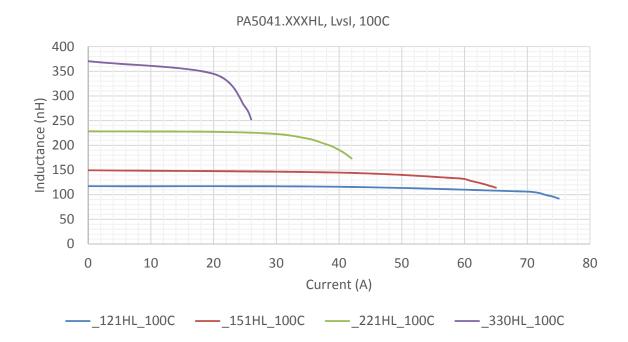
**Dimensions: mm**Unless otherwise specified, all tolerances are ±0.25

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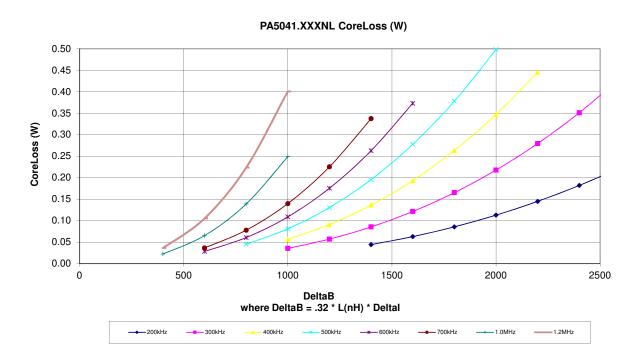




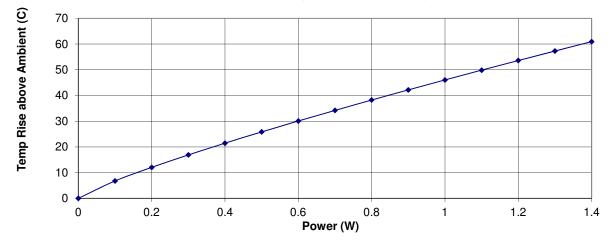
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### PA5041.XXXHL Temp Rise vs Power Dissipation



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

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SURFACE MOUNTING TYPE, REEL/TAPE LIST														
ТҮРЕ	REEL SIZE (mm)				TAPE SIZE (mm)								QTY	
	A	<b>W</b> 1	₩z	N	E	F	Do	Po	<b>P</b> 1	P <sub>2</sub>	W	T	<b>K</b> o	PCS/REEL
PA5041.XXXHLT	Ø330	24.4	30.4	100	1.75	11.5	1.5	4	16	2	24	0.6	11.2	300

### For More Information:

Americas - prodinfo\_power\_americas@yageo.com | Europe - prodinfo\_power\_emea@yageo.com | Asia - prodinfo\_power\_asia@yageo.com

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