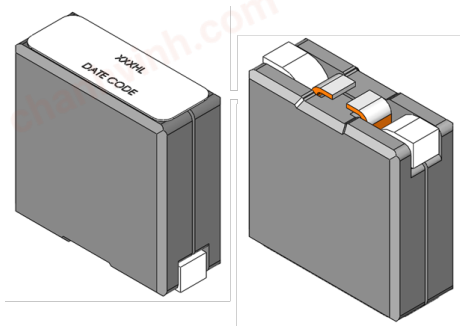
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Power Inductor
Series PIVC PGL7093.XXXHLT
TLVR, 12*5*12mm max, 0.125mohm



- *Ferrite core material*
- *Operating frequency range, Up to 2 Mhz*
- *12.0 mm x 5.0 mm footprint surface mount package in an 12.0 mm height*
- *Inductance range: 70 nH to 150 nH*
- *Max current 145 A*
- *100 Vdc insulation between windings*

Electrical Specifications @ 25°C — Operating Temperature -40°C to +125°C

Part Number	INDUCTANCE AT 0 sat (nH ±15%)	INDUCTANCE AT 1 sat (nH MIN)	Irated (A)	DCR (1-4) mohm (+/- 10%)	DCR (2-3) mohm (+10 %/- 20%)	Isat AT 25 °C (A TYP)	*Isat AT 100 °C (A TYP)	*HEATING CURRENT FOR (1-4) (A TYP)	*HEATING CURRENT FOR (2-3) (A TYP)	HiPot (1-4) to (2-3) Vdc
PGL7093.700HLT	70	50	75	0.125	0.45	*145	126	75	49	100
PGL7093.101HLT	100	72	75			*102	89			
PGL7093.121HLT	120	86	75			*85	74			
PGL7093.151HLT	150	108	68			68	59			

NOTES:

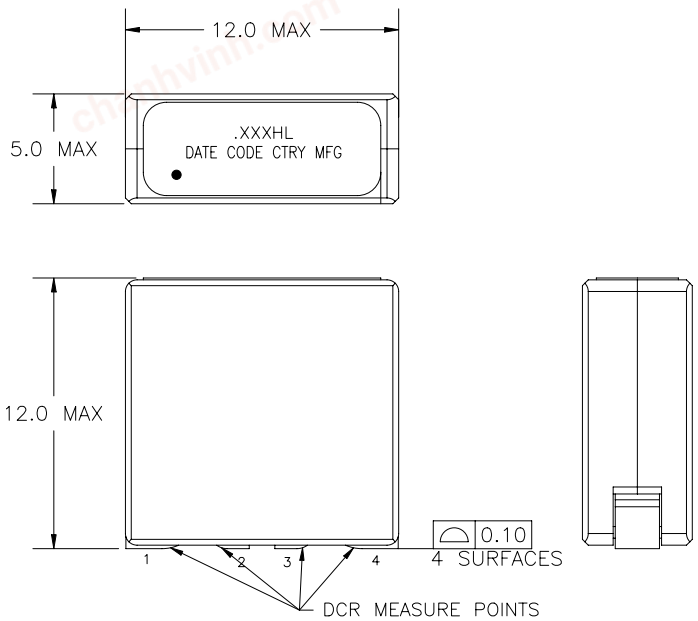
1. Inductance measured at 100kHz, 1.0mVrms.
2. Heating current is the dc current which causes the part temperature to increase by approximately 40°C. it is a calculated value and will vary within application based on ambient temperature, air flow, surrounding component temperature and heatsinking. Part temperature should not exceed 125°C under worst case operating conditions. Part temperature should be verified in the end application.
3. The nominal DCR is measured at point △, as shown below on the mechanical drawing.
4. The items on indicated * are guaranteed by design and verified by design stage. Will not test for mass production.
5. 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.
6. Isat is same for both windings.
7. 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 current (to eliminate self-heating effects) to the component.
8. In high volt-second (high voltage*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. In high volt-second (high voltage*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.
9. 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.
10. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
11. Hi-Pot: (1-4) to (2-3), 100Vdc, 1.0mA, 2sec

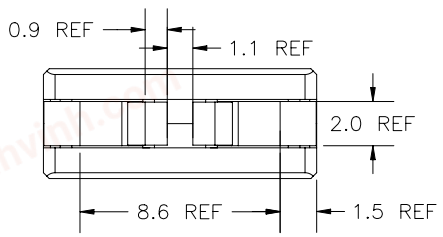
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Mechanical

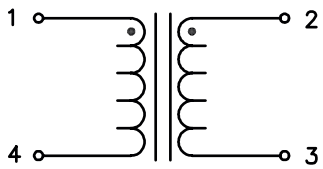
PGL7093.XXXHLT





FINAL OUTLINE

Schematic



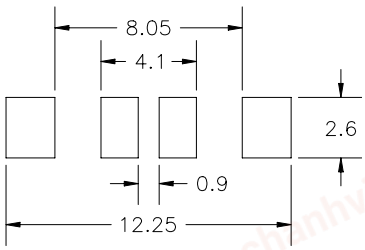
SCHEMATIC

Weight . . . . . 3.3 grams

Tape & Reel 250/reel

Dimensions: mm

Unless otherwise specified, all tolerances are
.x = ±0.25
.xx = ±0.13

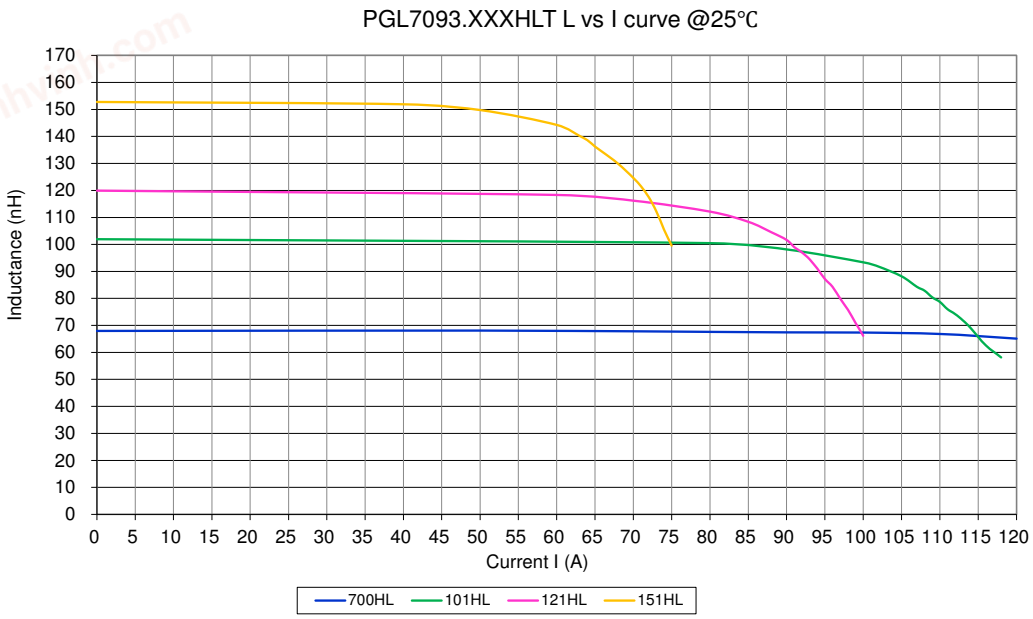


SUGGESTED LAND PATTERN

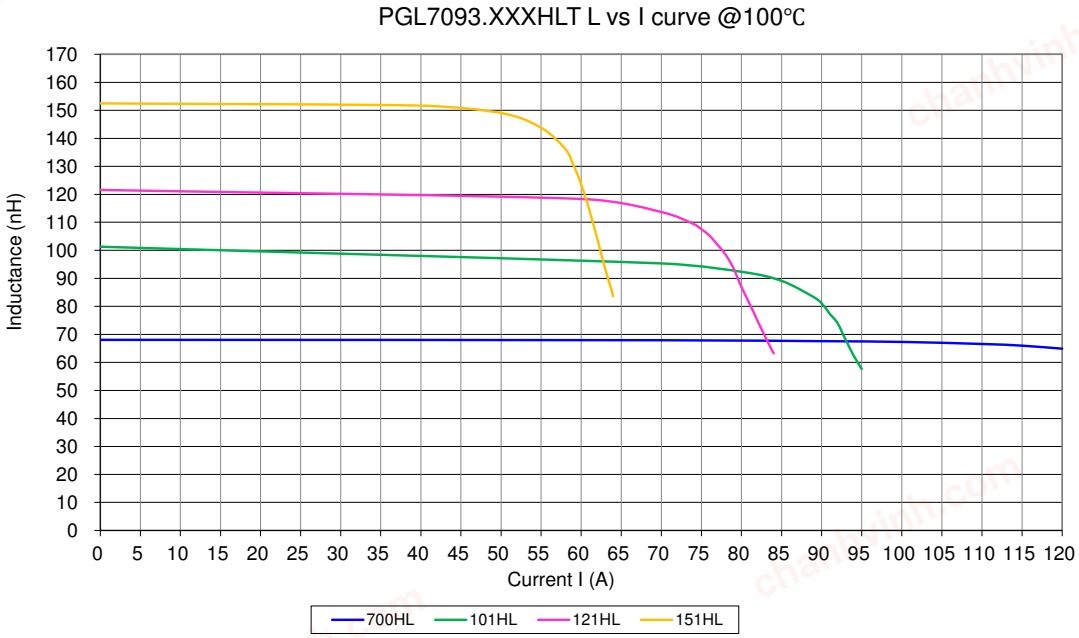
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L vs I curve

PGL7093.XXXHLT



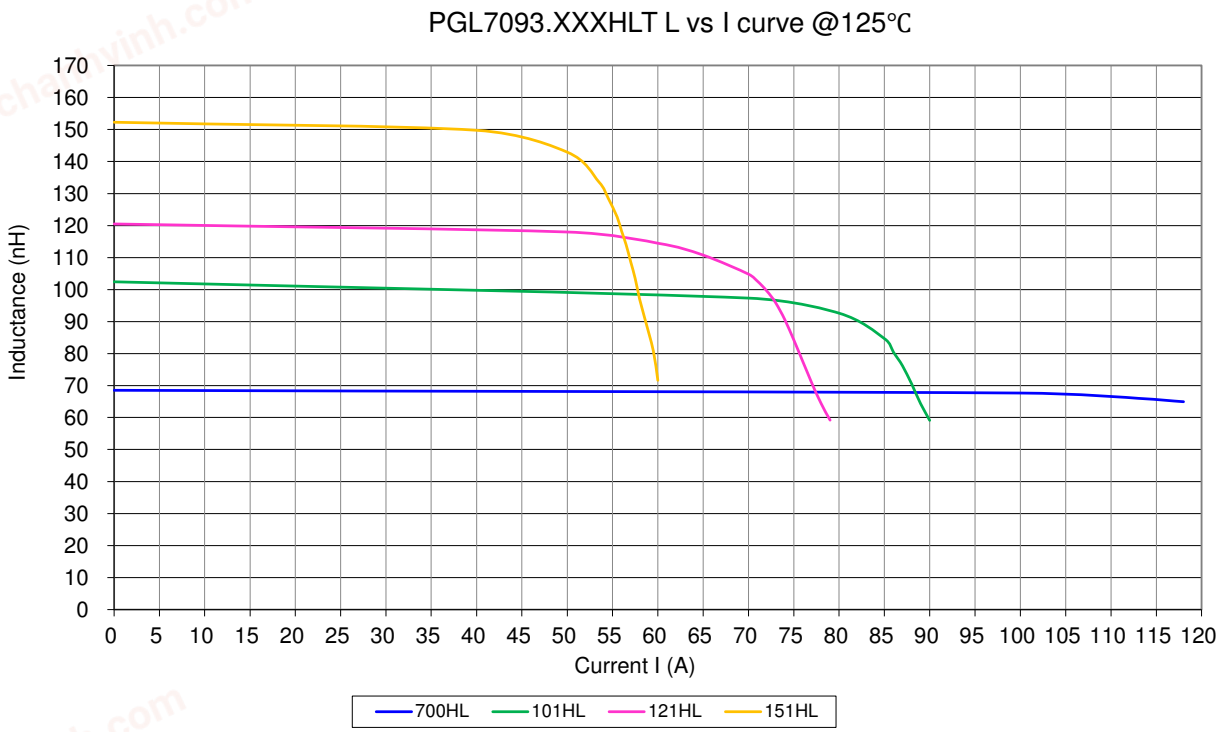
PGL7093.XXXHLT



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L vs I curve

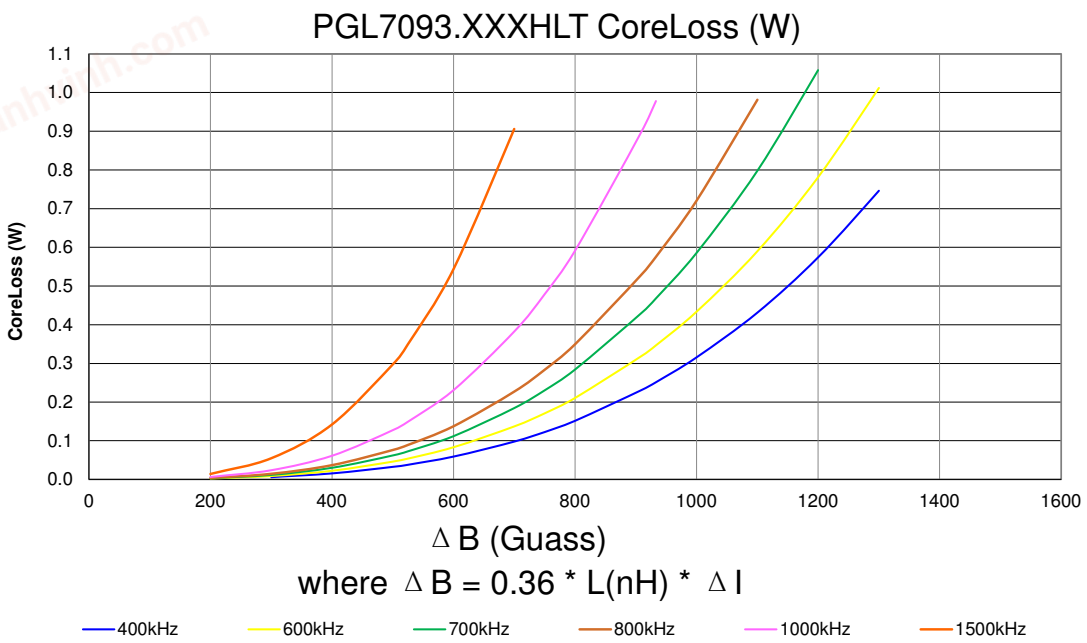
PGL7093.XXXHLT



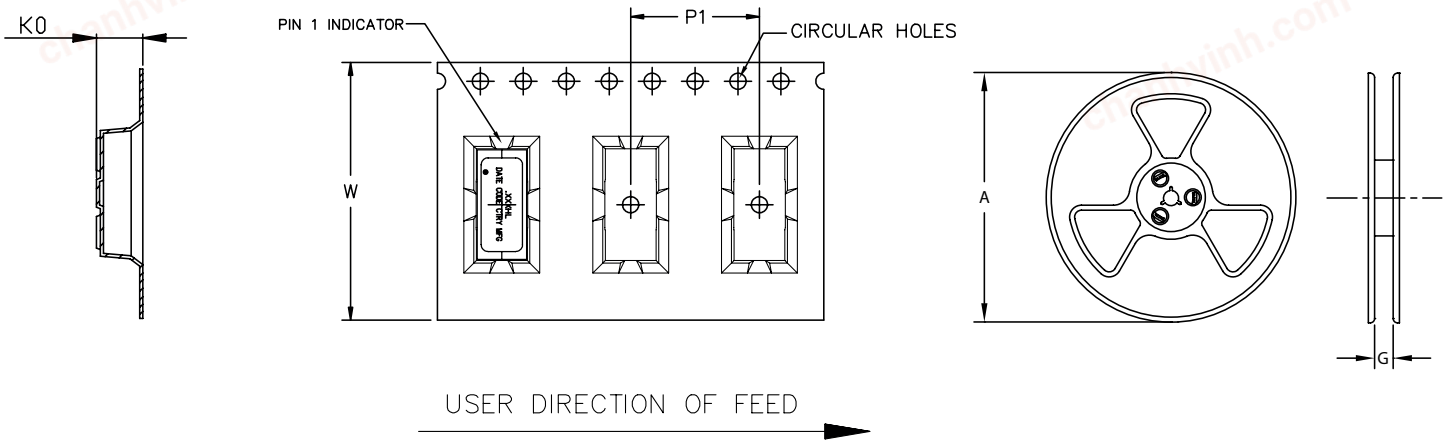
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Core Loss

PGL7093.XXXHLT



TAPE & REEL INFO



SURFACE MOUNTING TYPE, REEL/TAPE LIST						
PART NUMBER	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P1	W	K0	PCS/REEL
PGL7093.XXXHLT	330	24.4	16	24	12.2	250