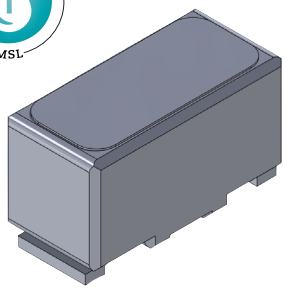
## Power Inductor
## Series PIVC PGL7195.XXXHLT
## TLVR, lower height, 10.2*5*6mm max, 0.5mohm, 38A



- *Ferrite core material*
- *Operating frequency range, Up to 2Mhz*
- *10.2 mm x 5.0 mm footprint surface mount package in an 6 mm height*
- *Inductance range: 100 nH to 150 nH*
- *Max current 68A*
- *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[3] (A) | DCR (1 -4) mohm (+/- 10%) | DCR (2-3) mohm MAX | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| PGL7195.101HLT | 100 | 70 | 38 | 0.50 | 1.6 | 68 | 58 | 38 | 22 | 100 |
| PGL7195.121HLT | 120 | 84 | | | | 56 | 48 | | | |
| PGL7195.151HLT | 150 | 105 | | | | 44 | 38 | | | |

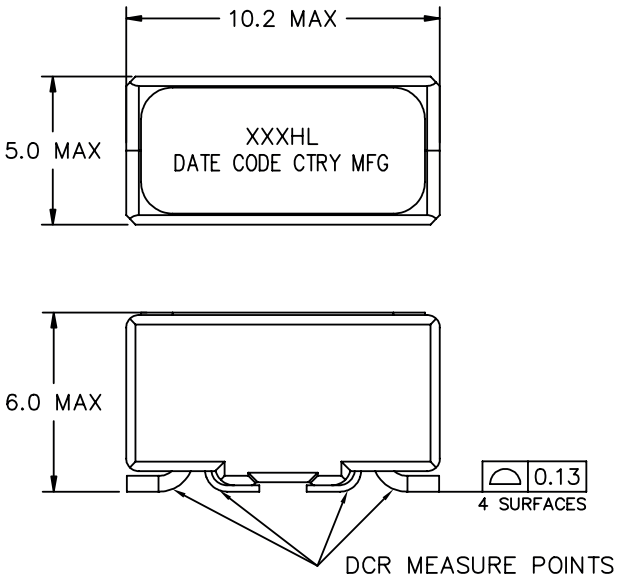
**NOTES:**

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 2., 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 pulse current (to eliminate self-heating effects) to the component.
8. In high volttime 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 volttime 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
12. Leakage Inductance (LL): At 100KHz, 1.0 Vrms, Pins(1-4)=10nH max(with pin2/3 shorted).
13. Couple Coefficient (Kps): 0.95 Min

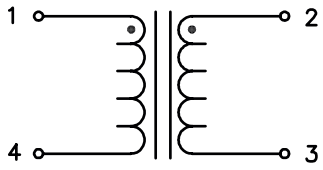
$$Kps:= \sqrt{1 - \frac{LL}{INDUCTANCE\ (1 - 4)}}$$

## Mechanical

**PGL7195.XXXHLT**




## Schematic



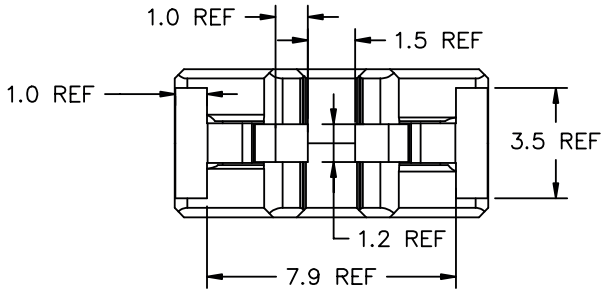

SCHEMATIC

Weight . . . . . 1.15 grams

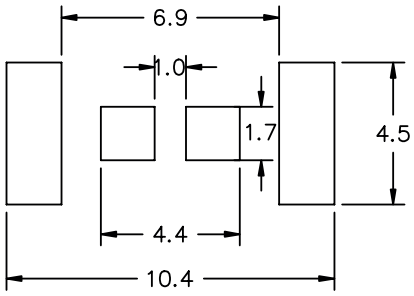
Tape & Reel . . . . . 750/reel

Dimensions: mm

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



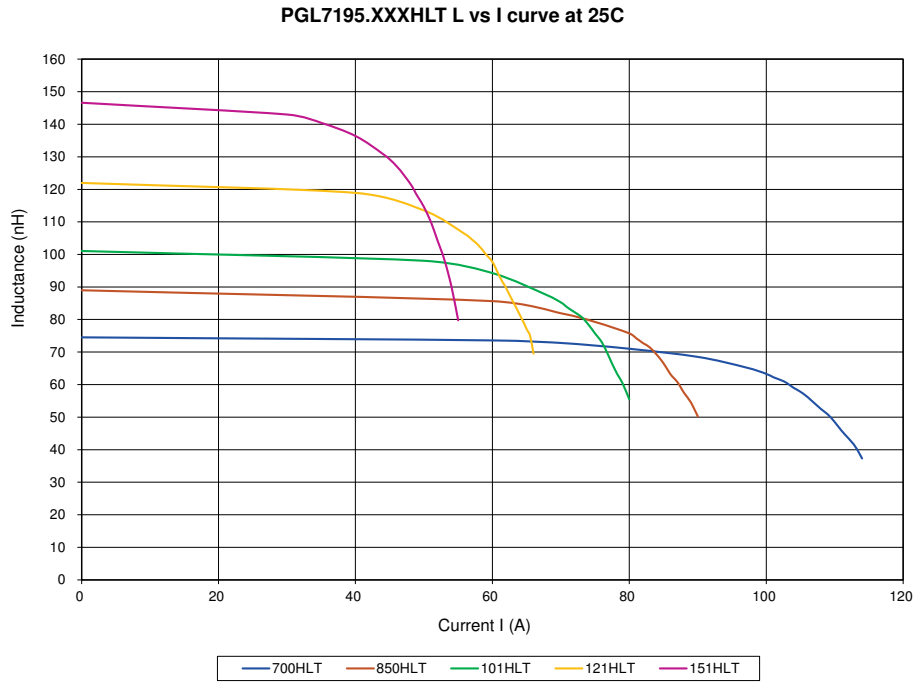

FINAL OUTLINE



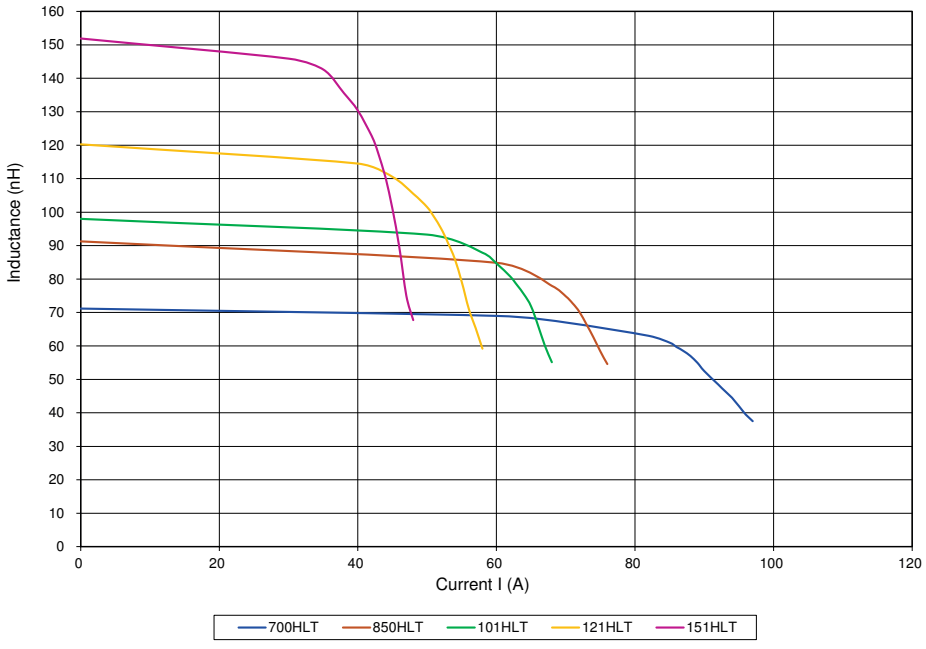

SUGGESTED LAND PATTERN

## L vs I curve

### PGL7195.XXXHLT

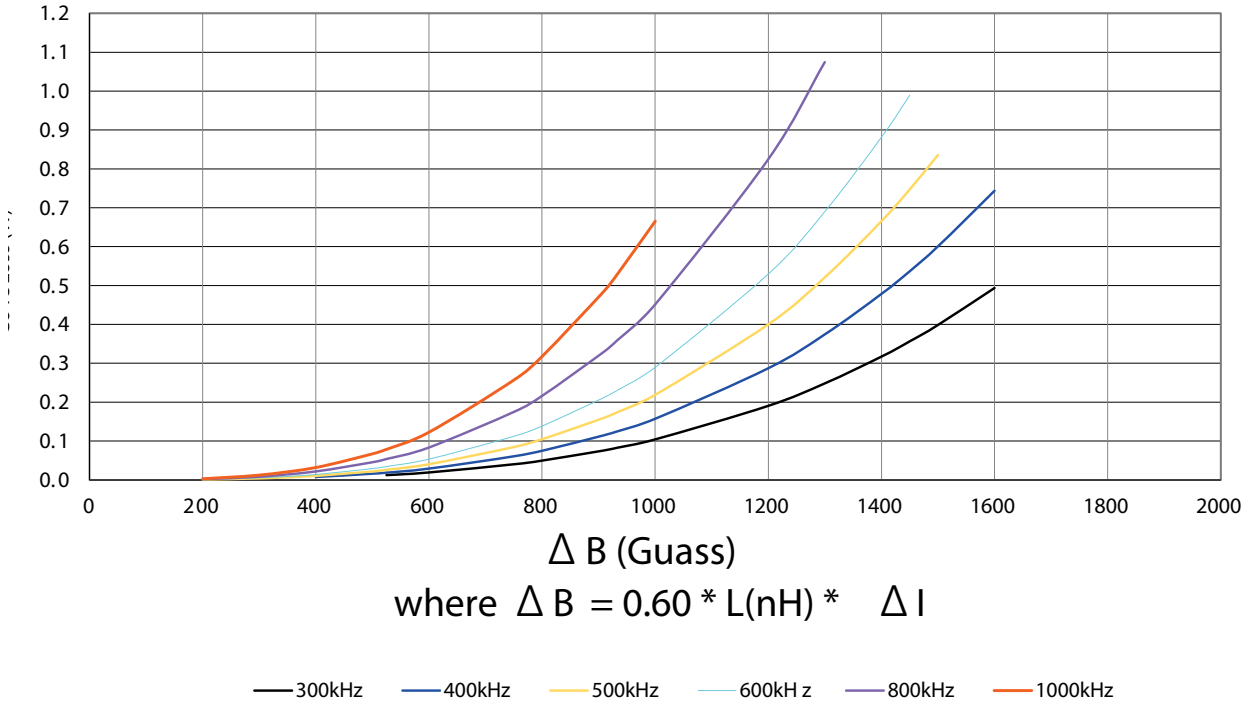



### PGL7195.XXXHLT

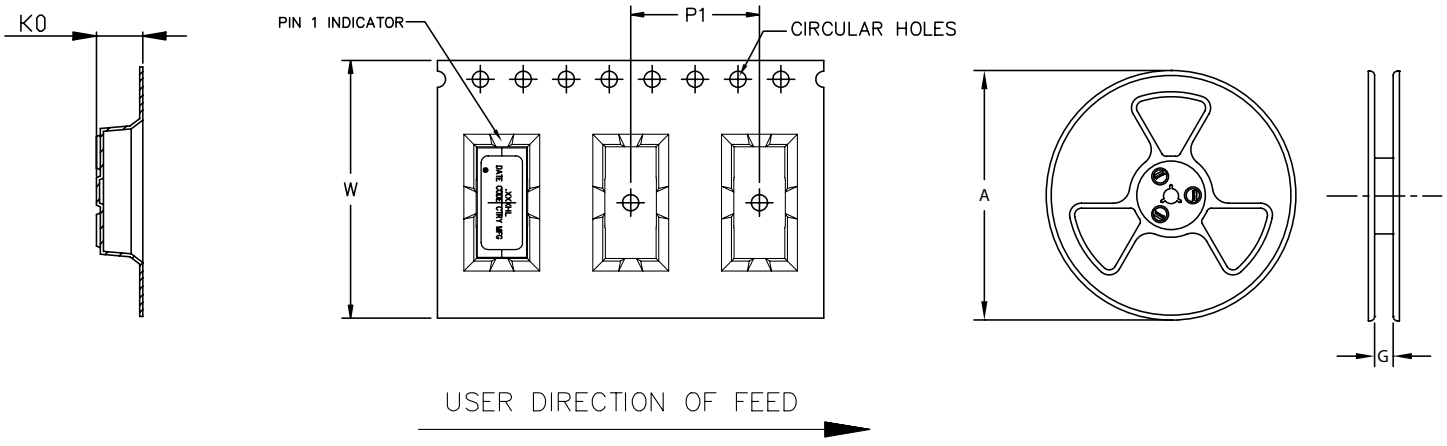


## Core Loss

### PGL7195.XXXHLT




## TAPE & REEL INFO




**SURFACE MOUNTING TYPE, REEL/TAPE LIST**

| PART NUMBER | REEL SIZE (mm) | | TAPE SIZE (mm) | | | QTY |
|---|---|---|---|---|---|---|
| | A | G | $P_1$ | W | $K_0$ | PCS/REEL |
| PGL7195.XXXHLT | 330 | 24.4 | 12 | 24 | 6.2 | 750 |