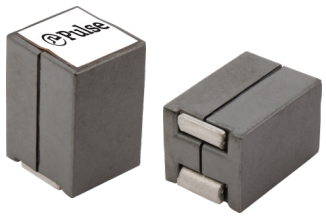
# SMT Power Inductors

*Power Beads - PGL6076.XXXAHLT Series*



- ***Current Rating:*** *Over 130Apk*
- ***Inductance Range:*** *90nH to 320nH*
- ***Height:*** *12.0mm Max*
- ***Footprint:*** *8.3mm x 7.6mm Max*

**Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C [7]**

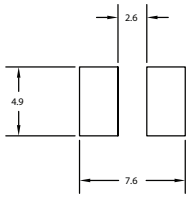
| Part Number | Inductance[1] @ 0ADC (nH +/- 10%) | Inductance[2] @Irated (nH TYP) | Irated[3] (ADC) | DCR (1-3) (mΩ nominal) | Saturation Current[5] (A TYP) | | Heating Current[6] (A TYP) |
|---|---|---|---|---|---|---|---|
| | | | | | 25°C | 100°C | |
| PGL6076.900AHLT | 90 | 90 | 60 | 0.155 +/-10% | 137 | 116 | 60 |
| PGL6076.131AHLT | 130 | 126 | 60 | | 95 | 81 | 60 |
| PGL6076.321AHLT | 320 | 256 | 37 | | 37 | 31 | 60 |

**NOTES:**

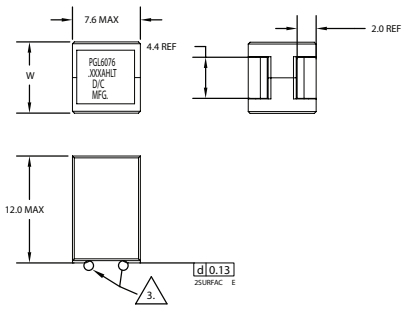
1. Inductance measured at 100kHz, 100mVrms.
2. Inductance at Irated is the value of the inductance at 25°C at the listed rated current.
3. The rated current as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.
4. The nominal DCR is measured at 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 core loss and temperature rise curves can be used.
8. 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=12.4mm). 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.
10. Sample Value only. Guaranteed by Design and not tested in production

## Mechanical

**PGL6076.XXXAHLT**

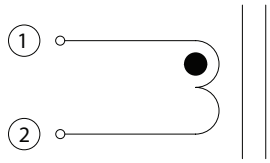



SUGGEST LAND PATTERN




FINAL OUTLINE

## Schematic




SCHEMATIC

**Weight:** 3.27grms

**Tape &Reel:** 250/ Reel

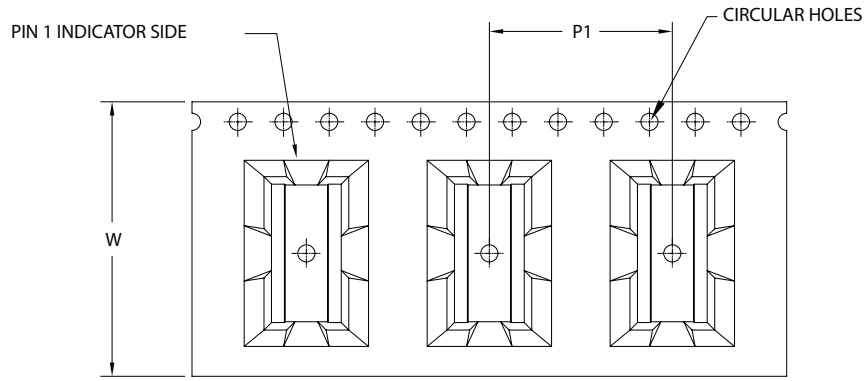
**Dimensions:** mm

Unless otherwise specified , all tolerances are ± 0.25



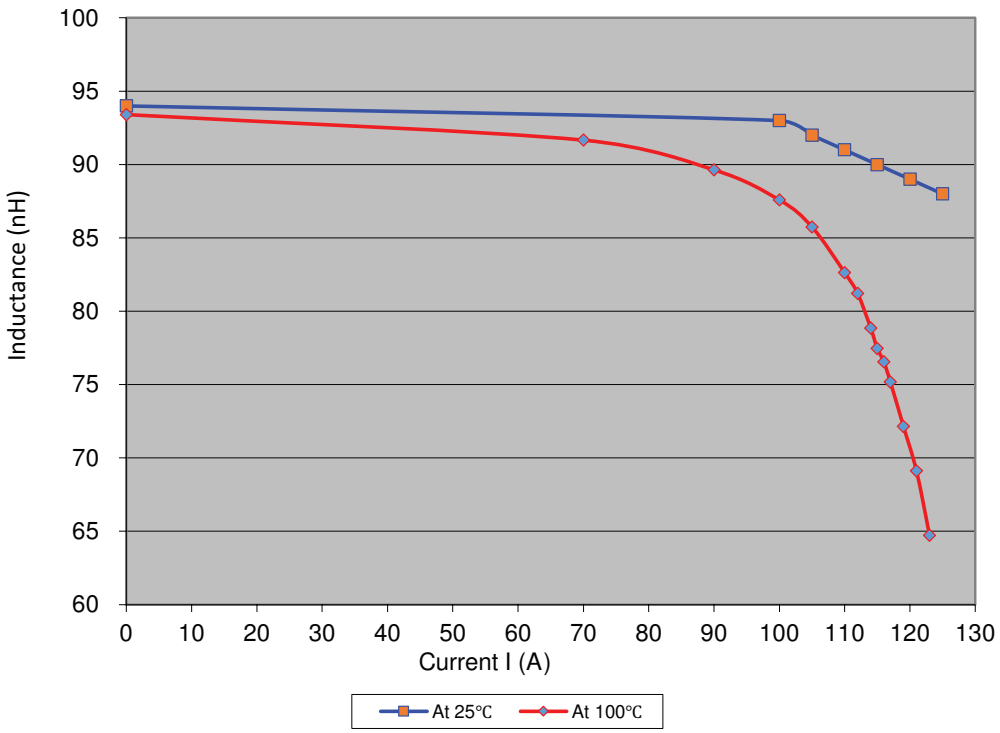
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## TAPE & REEL INFO




| SURFACE MOUNTING TYPE, REEL/TAPE LIST | | | |
|---|---|---|---|
| TYPE | REEL SIZE (mm) | | QTY |
| | W ± 0.30 | P1 ± 0.1 | PCS/REEL |
| PGL6076.XXXALT | 24 | 16 | 250 |

### PGL6076.900AHLT, L vs I Curve

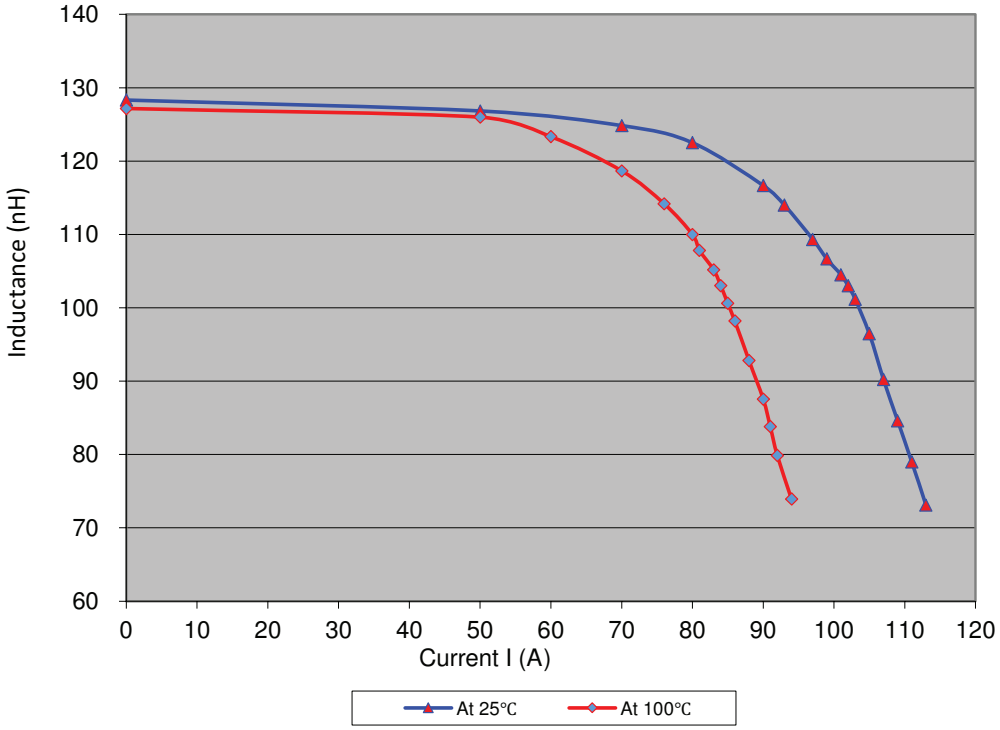




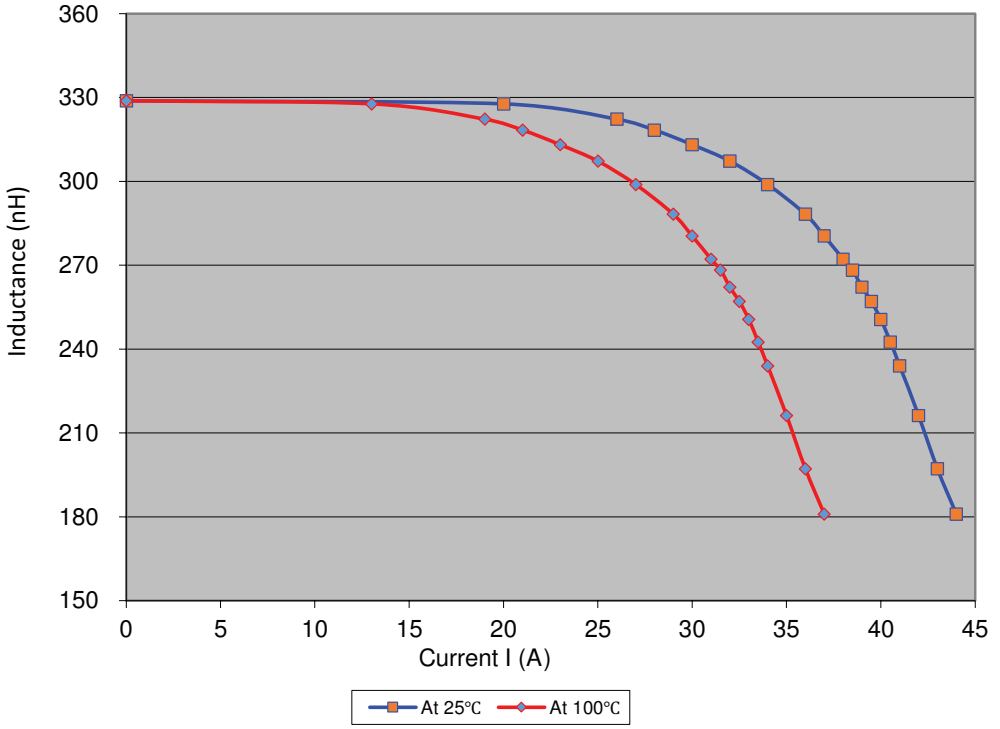

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## TAPE & REEL INFO

### PGL6076.131AHLT, L vs I Curve



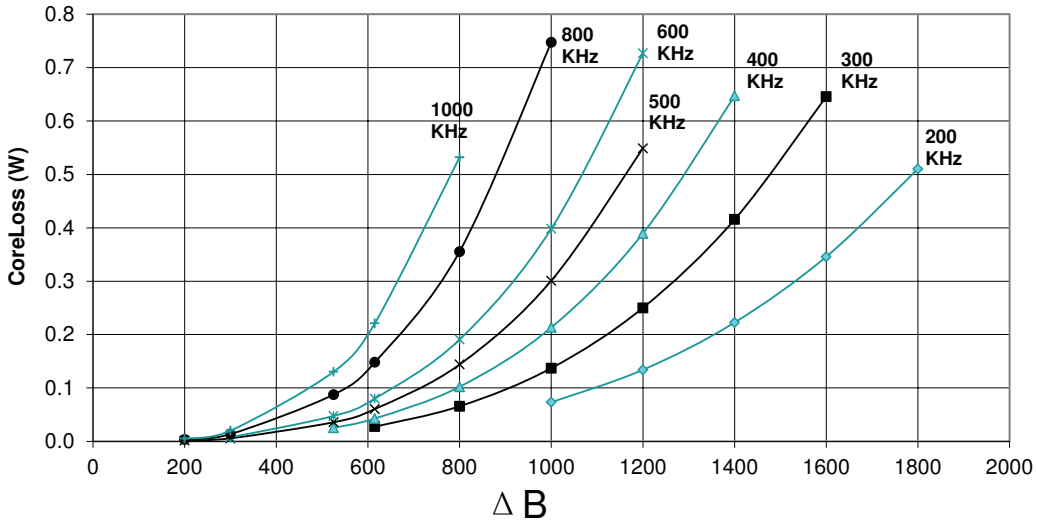

### PGL6076.321AHLT, L vs I Curve






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## PGL6076.XXXAHLT, Core Loss




where $\Delta B = 0.32 * L(nH) * \Delta I$




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