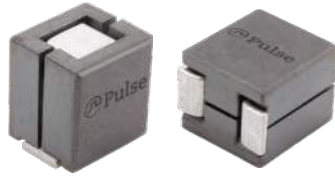


# SMT Power Inductors

Power Beads - PG2290.XXXHLT Series



- Ⓢ **Current Rating:** Over 100A
- Ⓢ **Inductance Range:** 120nH to 320nH
- Ⓢ **Height:** 12.0mm Max
- Ⓢ **Footprint:** 10.7mm x 7.5mm Max

## Electrical Specifications @ 25°C — Operating Temperature - 40°C to +125°C<sup>7</sup>

Part Number	Inductance <sup>1</sup> @ 0A <sub>DC</sub> (nH +/- 10%)	Inductance <sup>2</sup> @ I <sub>sat</sub> (nH MIN)	I <sub>rated</sub> (ADC)	DCR mohms +/-10%	Saturation Current <sup>5</sup> (A TYP)			I <sub>rms</sub> (A TYP)
					25°C	100°C	125°C	
PG2290.121HLT	120	77	75	0.15	140	112	105	75
PG2290.151HLT	150	96	75		115	97	91	
PG2290.181HLT	180	115	75		90	79	75	
PG2290.221HLT	220	141	75		81	64	61	
PG2290.321HLT	320	205	54		54	43	41	

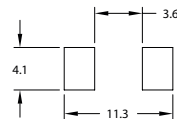
**NOTES:**

- Inductance measured at 100kHz, 100mVrms.
- Inductance at I<sub>rated</sub> 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.
- The nominal DCR is measured at point  $\triangle 2$ , as shown below on the mechanical drawing.
- 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.
- The heating current is the DC current which causes the part temperature to increase by approximately 40°C when used in a typical application.
- In high volt\*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate 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.
- 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 (P1=16mm) and depth (K0=12.3mm). Samples of these parts can be ordered by removing the HLT suffix and replacing with HL.
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
- Sample Value only. Guaranteed by Design and not tested in production

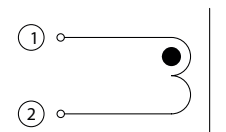
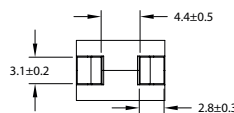
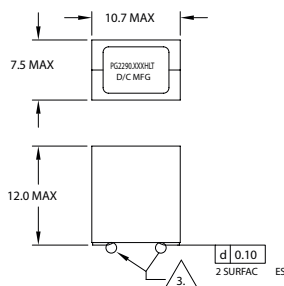
### Mechanical

### Schematic

#### PG2292.XXXHLT



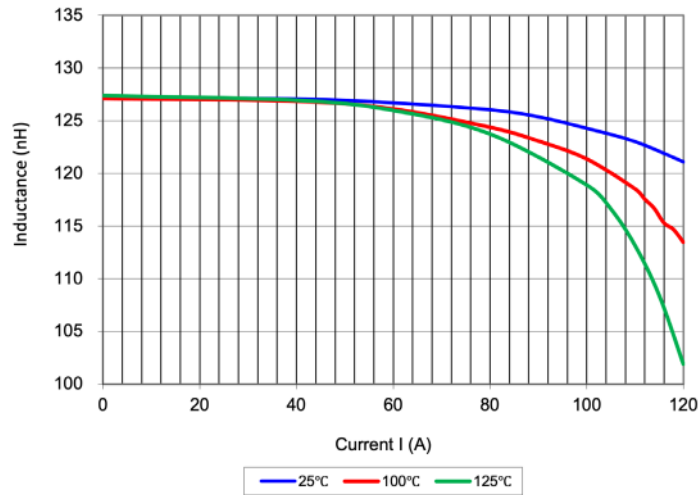
SUGGEST LAND PATTERN



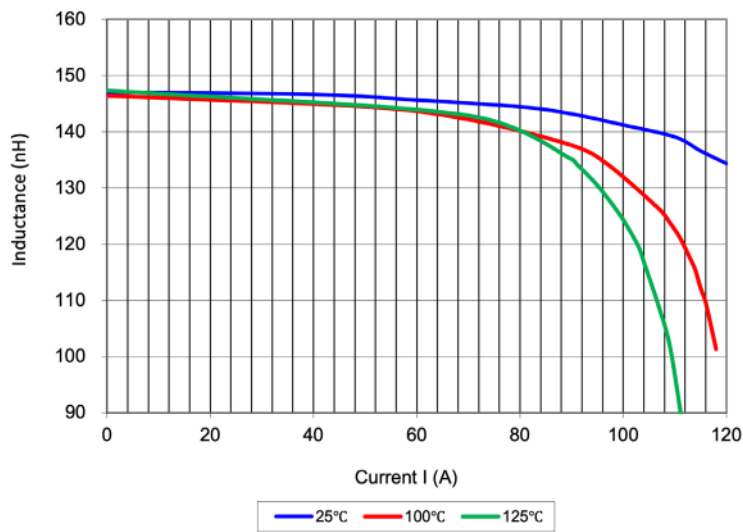
**Weight:** 4.3grms  
**Tape & Reel:** 270/ Reel  
**Dimensions:** mm  
 Unless otherwise specified, all tolerances are ± 0.25

L vs I Curves

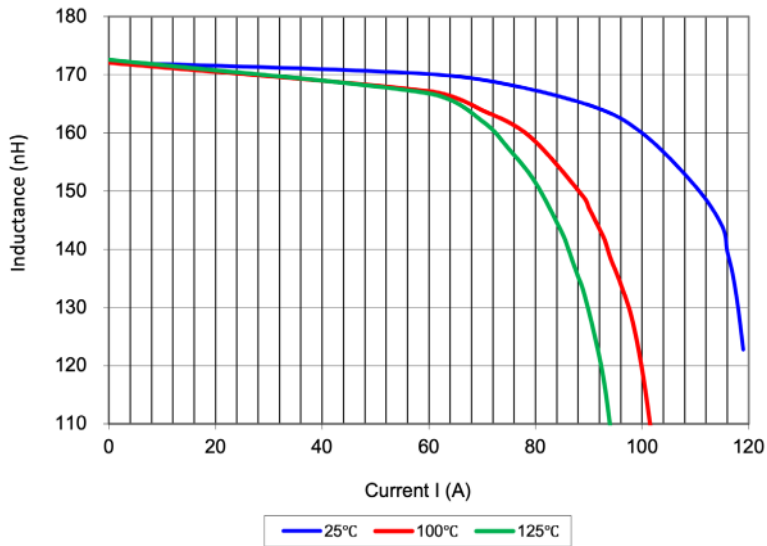
PG2290.121HLT, L vs I Curve



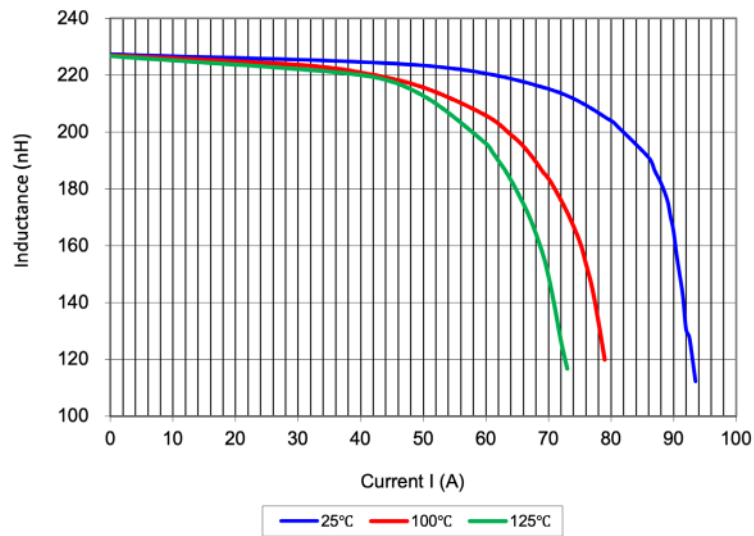
PG2290.151HLT, L vs I Curve



PG2290.181HLT, L vs I Curve



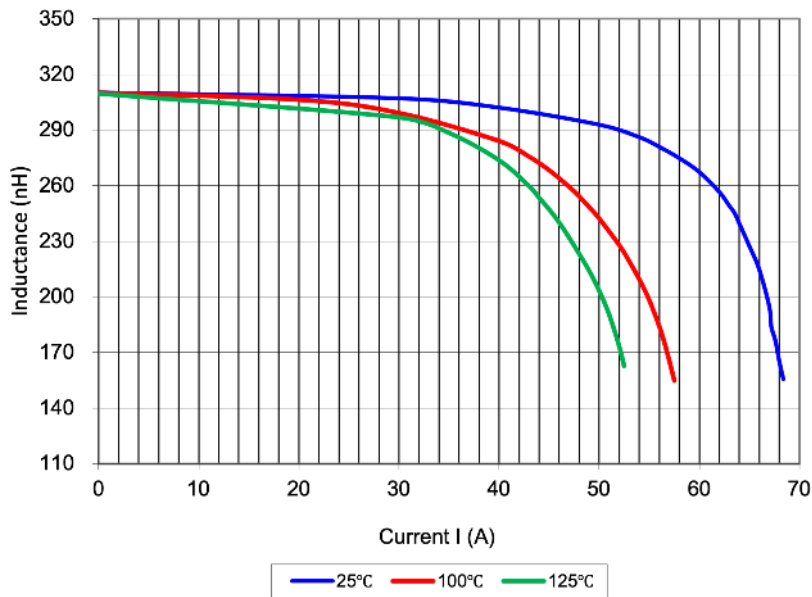
PG2290.221HLT, L vs I Curve



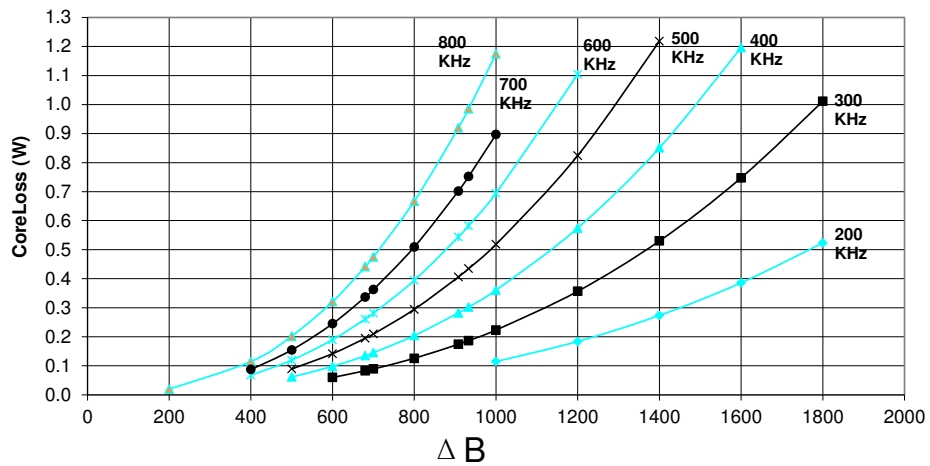
# SMT Power Inductors

Power Beads - PG2290.XXXHLT Series

### PG2290.321HLT, L vs I Curve



### PG2290.XXXHLT Coreloss



where  $\Delta B = 0.24 * L(nH) * \Delta I$

#### For More Information:

Americas - [prodinfo\\_power\\_americas@yageo.com](mailto:prodinfo_power_americas@yageo.com) | Europe - [prodinfo\\_power\\_emea@yageo.com](mailto:prodinfo_power_emea@yageo.com) | Asia - [prodinfo\\_power\\_asia@yageo.com](mailto:prodinfo_power_asia@yageo.com)

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