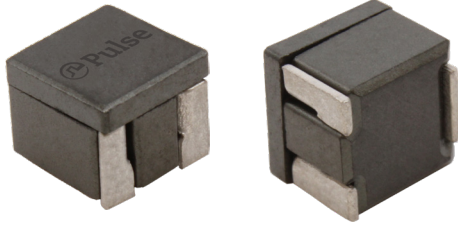


SMT Power Inductor

PSiP Power Bead - PGL6477.XXXHL Series



- Designed for PSiP Power Supply
- Current Rating 22A**
- Inductance Range:** 105nH to 215nH
- Height:** 5.4mm Max
- Footprint:** 6.45mm x 6.45mm Max

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

Part Number	Inductance ¹ @0A DC nH±15%	Inductance ² @Irated (nH TYP)	Irated ³ (A)	DCR ⁴ (mΩ)	Saturation Current ⁵ (A TYP)			Heating Current ⁶ (A TYP) TYP.	Height (mm)
					@25°C	@100°C	@125°C		
PGL6477.101HLT	105	105	22	0.4±12%	50	39.5	37	22	5.2±0.2
PGL6477.121HLT	117	116	22		43	34	33		5.2±0.2
PGL6477.141HLT	140	138	22		36	28.5	27		5.2±0.2
PGL6477.161HLT	160	158	22		31	24.5	23		5.15±0.2
PGL6477.181HLT	184	177	20		27	21	20		5.15±0.2
PGL6477.201HLT	200	185	19		25	19	18		5.15±0.2
PGL6477.221HLT	215	205	17.5		23	17.5	16		5.15±0.2

Notes

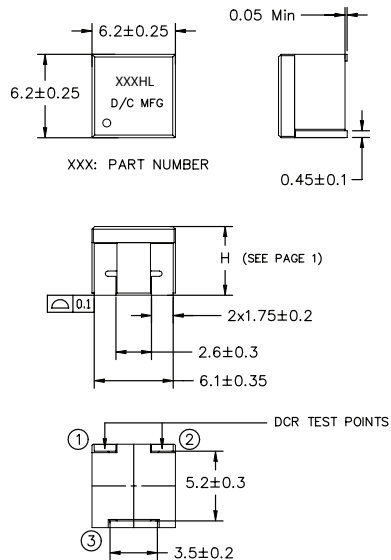
- Inductance measured at 100KHz, 0.1V
- Inductance at Irated is the value of the inductance at @25°C at the listed rated current
- The rated as listed is either the saturation current (25°C or 100°C) or the heating current depending on which value is lower.
- The nominal DCR is measured from point ① to point ②
- The saturation current is the current which causes the inductance to drop by approximately 20% at the stated ambient temperatures (25°C, 100°C, 125°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 loss (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=16), pitch (P0=12mm) and depth (K0=5.6mm). 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.

SMT Power Inductor

PSiP Power Bead - PGL6477.XXXHL Series

Mechanical

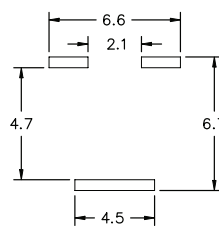
PGL6477.XXXHL



Schematics



SCHEMATIC

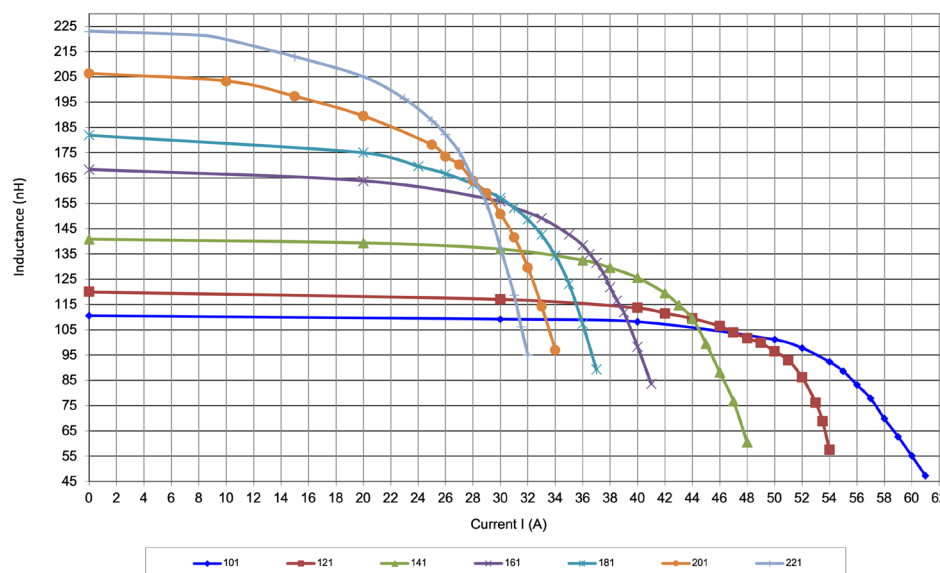


Weight.....1.0grms
Tape & Reel.....800/Reel
Dimensions: mm

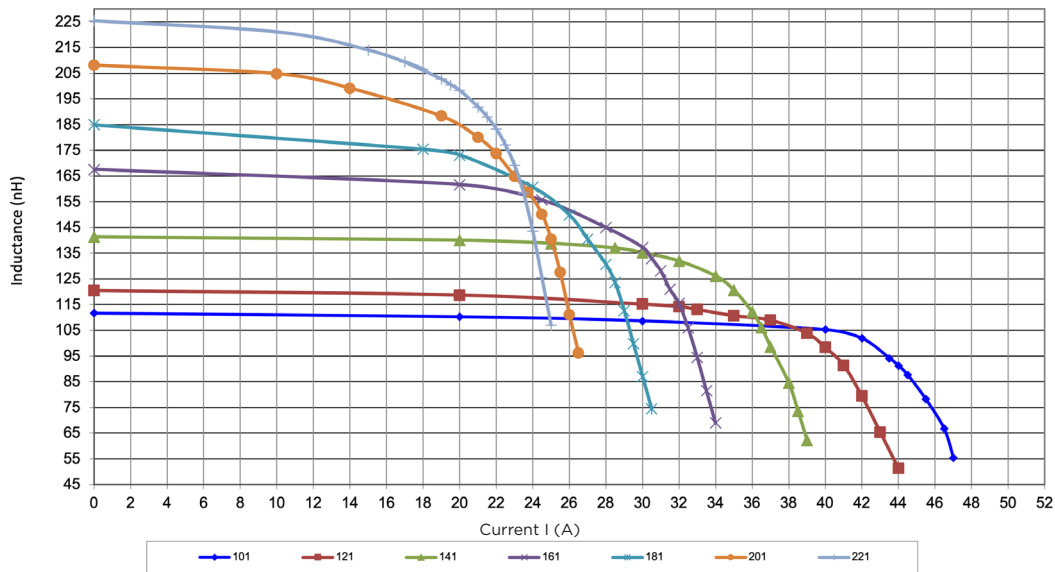
SUGGESTED PAD LAYOUT

Typical Performance Curves

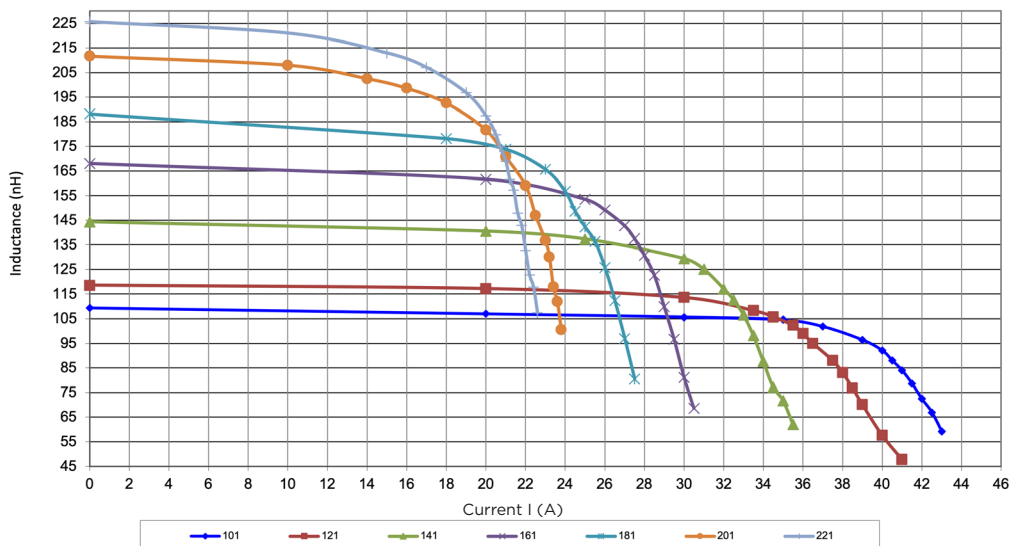
PGL6477.XXXHL L vs I curve 25°C



PGL6477.XXXHL L vs I curve 100°C



PGL6477.XXXHL L vs I curve 125°C

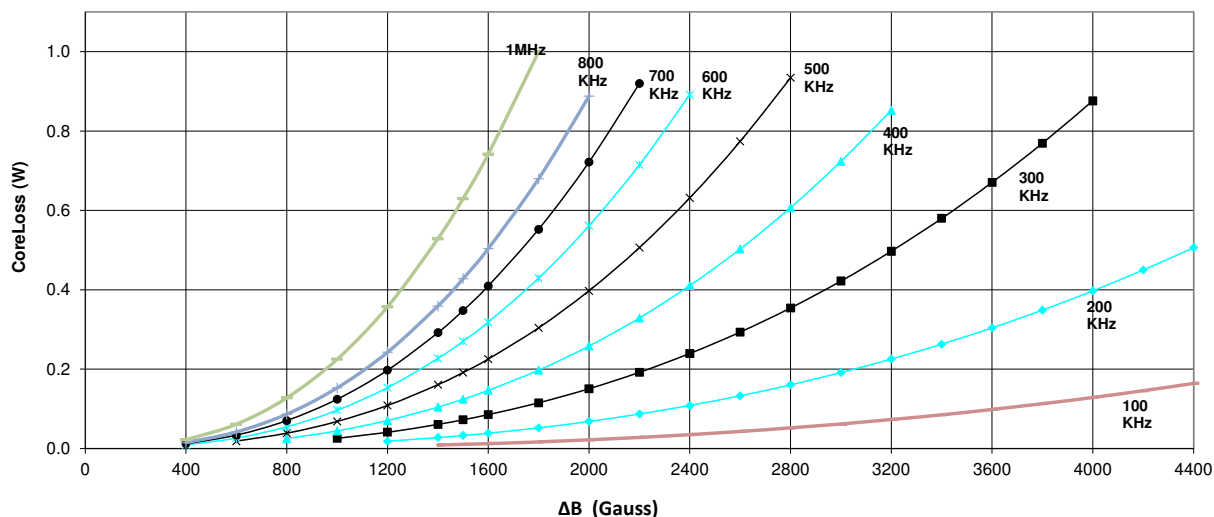


SMT Power Inductor

PSiP Power Bead - PGL6477.XXXHL Series

Core Loss

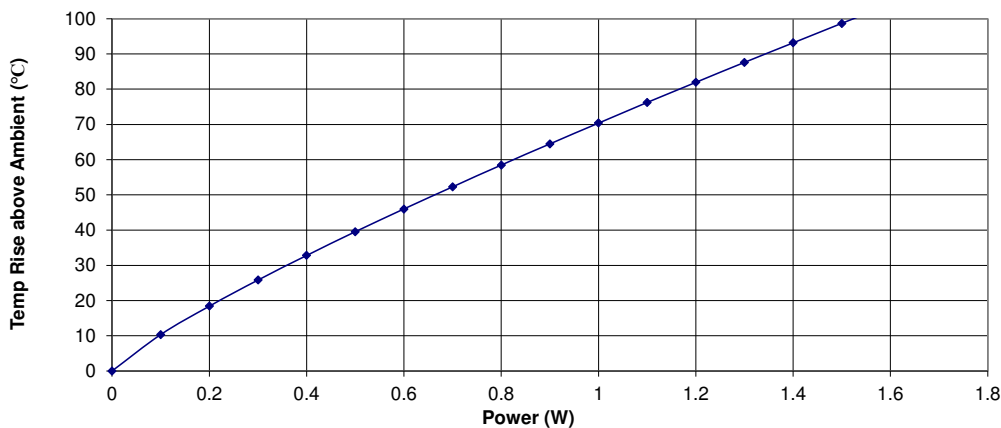
PGL6477.XXXHL Core Loss



$$\text{Where } \Delta B = 0.8 * L(\text{nH}) * \Delta I$$

Temp Rise vs Power Dissipation

PGL6477.XXXHL Temp Rise



$$\begin{aligned} \text{Total Power Dissipation (W)} &= \text{CopperLoss} + \text{CoreLoss} \\ \text{CopperLoss} &= I_{\text{rms}}^2 * R_{\text{dc}}(\text{mOhms}) / 1000 \\ \text{CoreLoss} &= (\text{from table}) \end{aligned}$$

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.