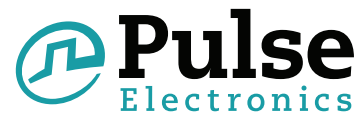


SMT Power Inductors

Power Beads - PA2891.XXXHL Series



- Current Rating:** Over 72 Apk
- Inductance Range:** 210nH to 440nH
- Height:** 8.0 mm Max
- Footprint:** 13.7mm x 12.95mm Max
- Halogen Free**

Electrical Specifications @ 25°C — Operating Temperature - 40°C to +130°C⁷

Part Number	Inductance ¹ @ 0A _{DC} (nH +/- 10%)	Inductance ² @I _{rated} (nH TYP)	I _{rated} ³ (ADC)	DCR ⁴ (mΩ nominal)	Saturation Current ⁵ (A TYP)		Heating Current ⁶ (A TYP)
					25°C	100°C	
PA2891.211HL	210	210	71	0.22 +/- 10%	85	71	72
PA2891.261HL	260	260	56		67	56	
PA2891.321HL	320	315	45		56	45	
PA2891.441HL	440	440	30		38	30	

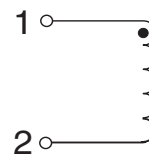
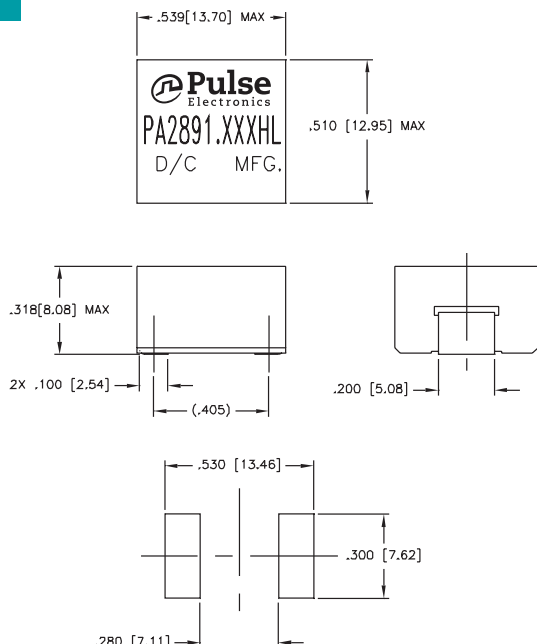
NOTES:

- Inductance measured at 100kHz, 100mVrms.
- Inductance at I_{rated} 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 from point Ⓐ to point Ⓑ, 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 and 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 losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
- Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA2891.211HL becomes PA2891.211HLT). Pulse complies to industry standard tape and reel specification EIA481. The tape and reel for this product has a width (W=24mm), pitch (Po=16.0mm) and depth (Ko=9.8mm).
- The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Mechanical

Schematics

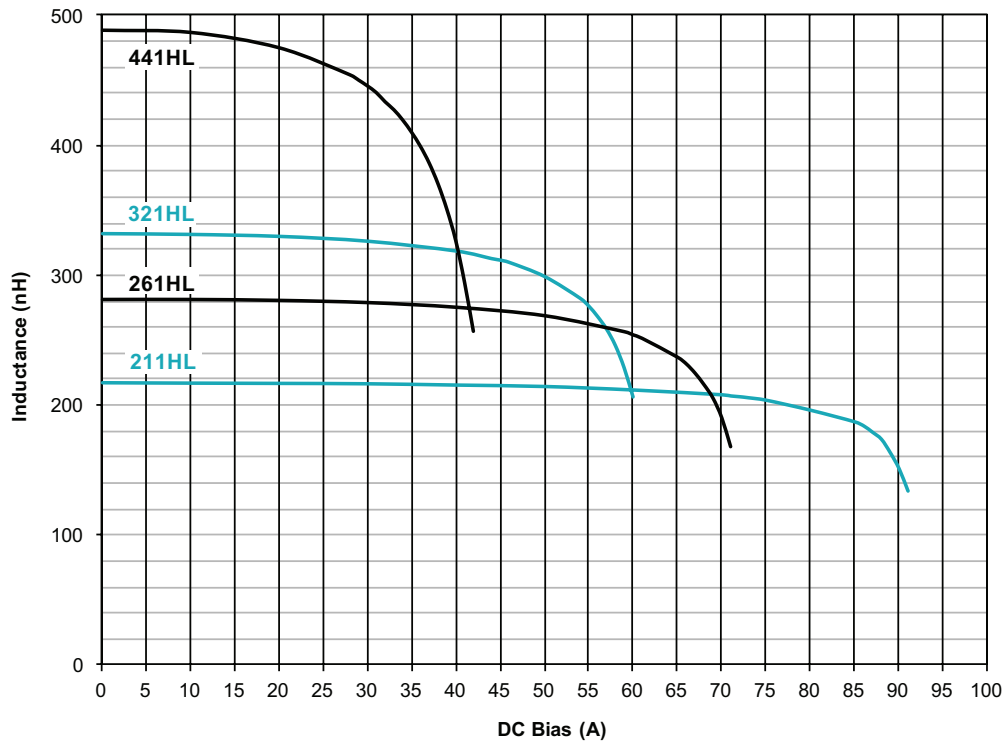
PA2981.XXXHL



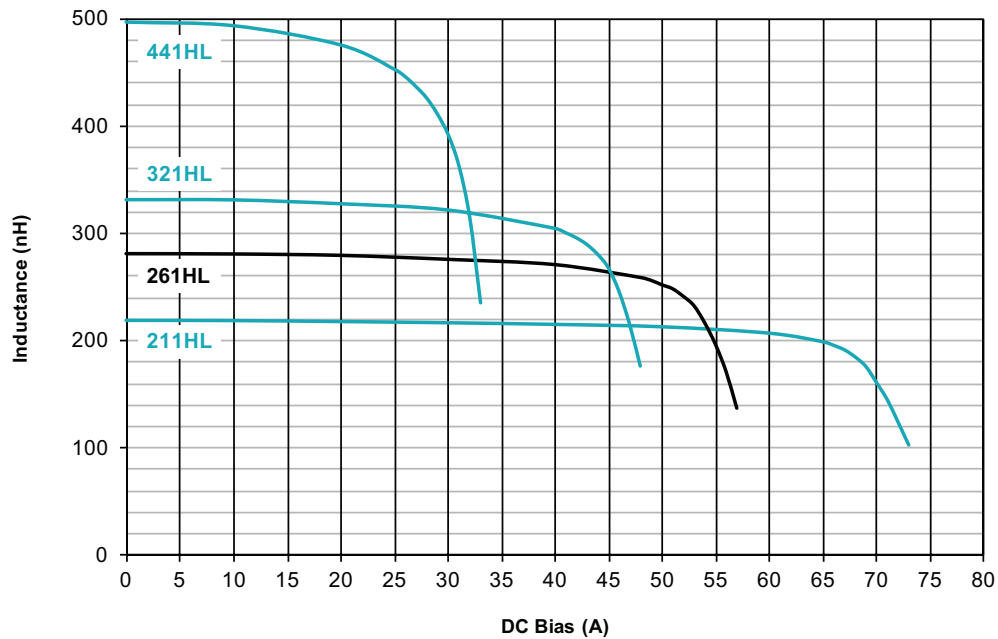
Weight 5.7 grams
Tape & Reel 400/reel

Dimensions: $\frac{\text{Inches}}{\text{mm}}$
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0.25}$

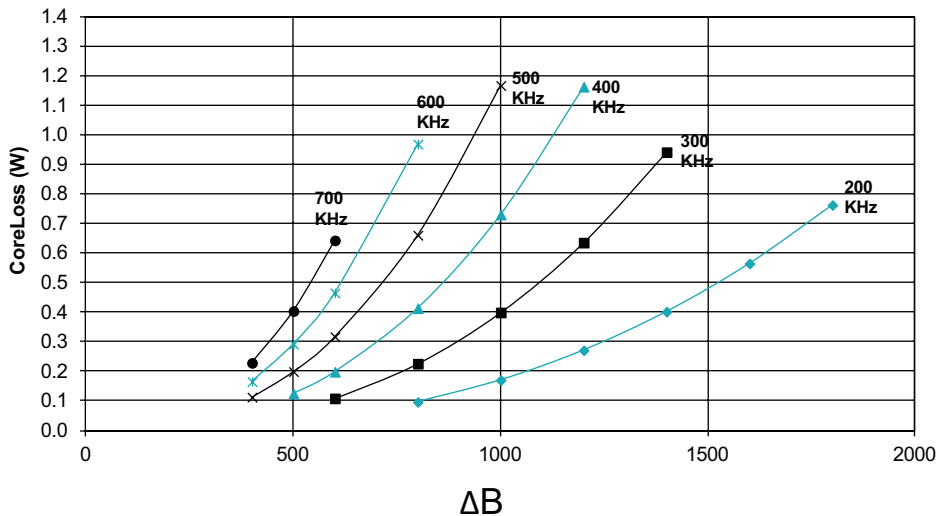
Typical Inductance vs DC bias @25°C



Typical Inductance vs DC bias @100°C

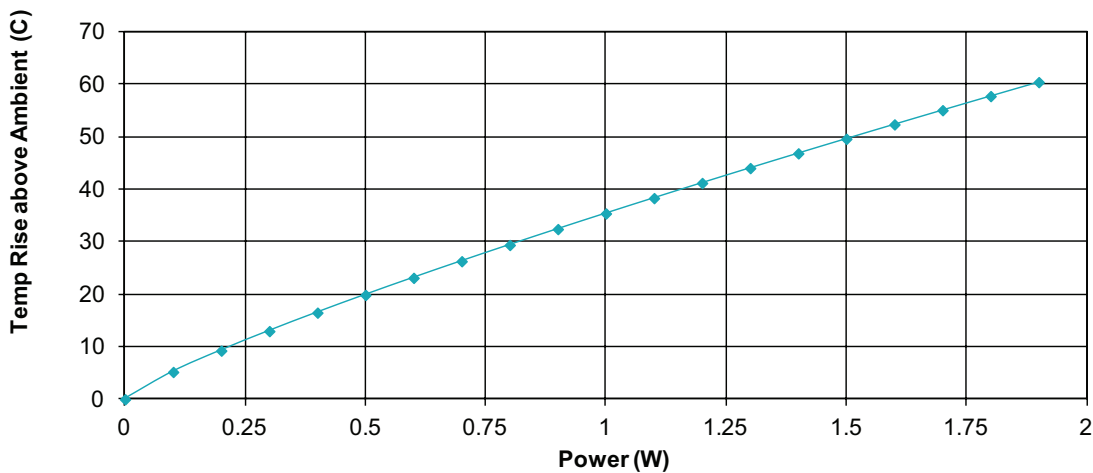


PA2891.XXXHL CoreLoss (W)



where $\Delta B = 0.23 * L(nH) * \Delta I$

PA2891.XXXHL Temp Rise vs Power Dissipation



Total Power Dissipation (W) = CopperLoss + CoreLoss

CopperLoss = $I_{rms}^2 * R_{dc}(mOhms) / 1000$

CoreLoss = (from table)

For More Information

Pulse Worldwide Headquarters

12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe

Einsteinstrasse 1
D-71083 Herrenberg
Germany

Tel: 49 7032 7806 0
Fax: 49 7032 7806 135

Pulse China Headquarters

B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057

Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China

Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia

135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia

3F, No. 198
Zhongyuan Road
Zhongli City
Taoyuan County 320
Taiwan R. O. C.

Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

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, 2011. Pulse Electronics, Inc. All rights reserved.