

SMT Power Inductors

Power Beads - PA3146.XXXHL Series



- Two non-coupled inductors integrated into a single package
- Less board space and lower cost than two separate inductors
- Current Rating:** Over 94A_{pk}
- Inductance Range:** 115μH to 300μH
- Height:** 7.6mm Max
- Footprint:** 13.7mm x 10.5mm
- Halogen Free

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

Part Number	Inductance @ 0A _{DC} (nH ±15%)	Inductance @ I _{rated} (nH TYP)	I _{rated} ¹ (A _{DC})	DCR ² (mΩ nominal)	Saturation Current ³ (A TYP)		Heating Current (A TYP)
					25°C	100°C	
PA3146.121HL	115	115	30	0.29 ± 10% (per phase)	94	78	30A/phase
PA3146.151HL	150	150	30		72	60	
PA3146.181HL	175	175	30		62	52	
PA3146.211HL	215	215	30		48	43	
PA3146.231HL	230	230	30		43	39	
PA3146.271HL	270	270	30		37	33	
PA3146.301HL	300	240	28		32	28	

Notes:

1. The rated current as listed is either the saturation current or the heating current depending on which value is lower.
2. The nominal DCR is measured from point a to point b, as shown below on the mechanical drawing.
3. The saturation current is the typical current which causes the inductance to drop by 20% at the stated ambient temperatures (25°C and 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.
4. The heating current is the DC current which causes the part temperature to increase by approximately 40°C.
5. 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.
6. Optional Tape & Reel package can be ordered by adding a "T" suffix to the part number (i.e. PA3146.211HL becomes PA3146.211HLT). 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=7.8mm).
7. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

USA 858 674 8100

Germany 49 7032 7806 0

Singapore 65 6287 8998

Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

SMT Power Inductors

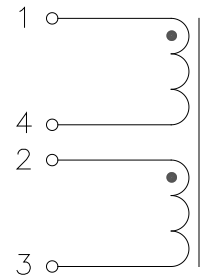
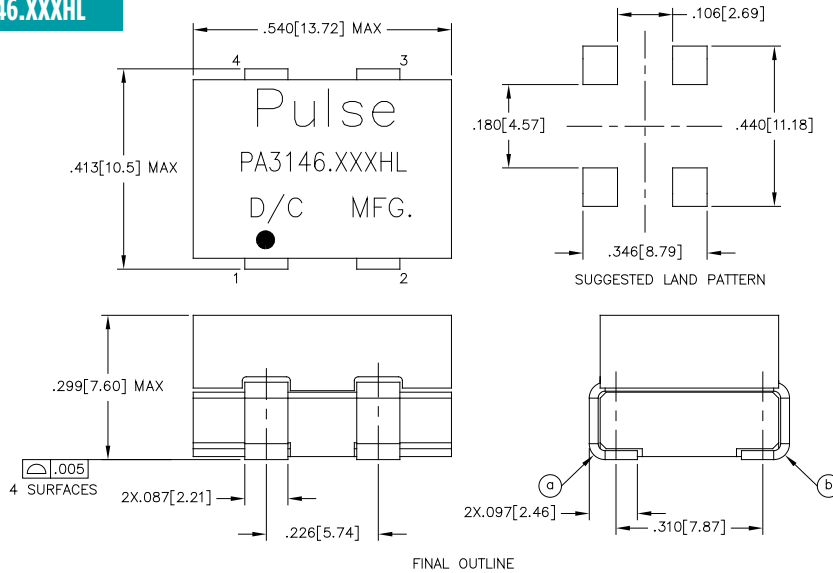
Power Beads - PA3146.XXXHL Series



Mechanical

Schematics

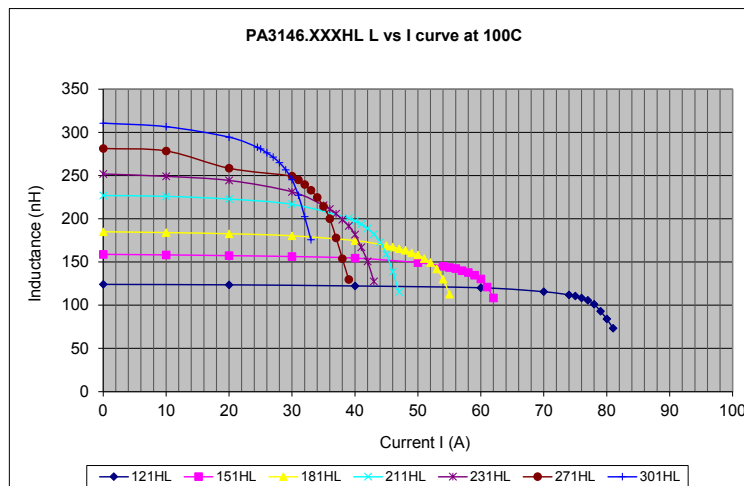
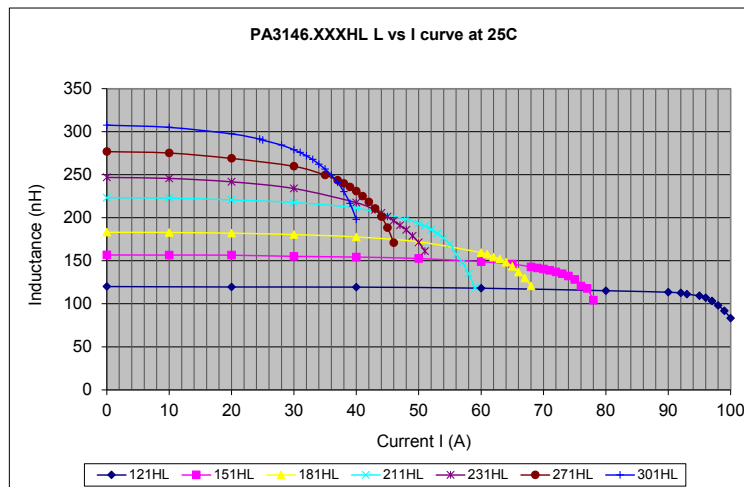
PA3146.XXXHL



Weight4.1grams
 Tape & Reel400/reel
 Dimensions: $\frac{\text{Inches}}{\text{mm}}$

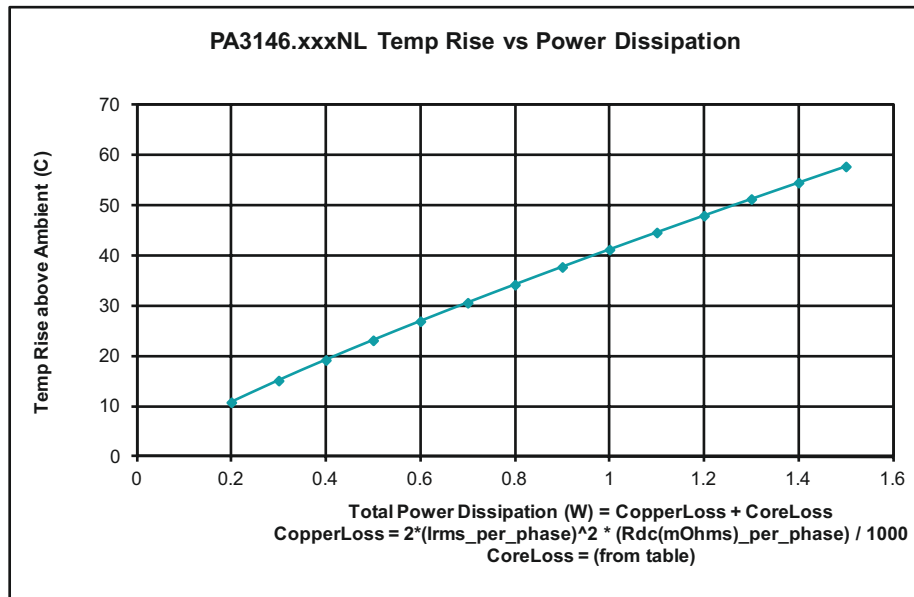
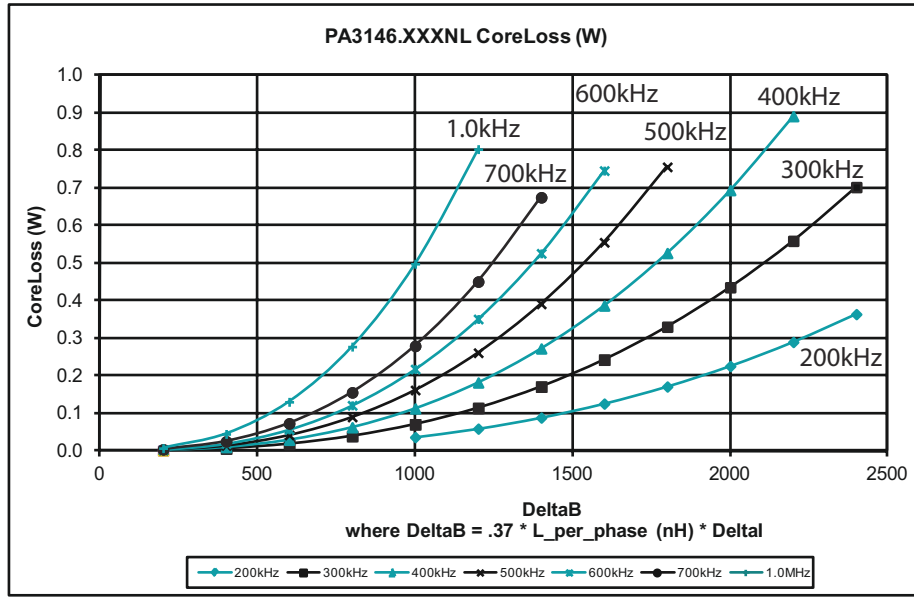
Unless otherwise specified,
 all tolerances are $\pm \frac{.010}{0,25}$

Typical Inductance vs DC Bias



SMT Power Inductors

Power Beads - PA3146.XXXHL Series



For More Information

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

Pulse Europe
 Einsteinstrasse 1
 D-71083 Herrenberg
 Germany

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

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

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

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)

Tel: 858 674 8100
 Fax: 858 674 8262

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

Tel: 86 755 33966678
 Fax: 86 755 33966700

Tel: 86 21 62787060
 Fax: 86 2162786973

Tel: 65 6287 8998
 Fax: 65 6287 8998

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, 2016. Pulse Electronics, Inc. All rights reserved.