

Vishay Dale

GREEN

## Low Profile, High Current IHLP<sup>®</sup> Inductors



Manufactured under one or more of the following: US Patents; 6,198,375/6,204,744/6,449,829/6,460,244. Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS									
L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>					
0.19	0.875	0.95	40.0	90.0					
0.36	1.30	1.40	31.5	60.0					
0.56	1.70	1.80	27.5	49.0					
1.0	3.70	4.10	17.5	36.0					
1.5	5.30	5.80	15.0	27.5					
2.2	8.20	9.00	12.0	25.6					
3.3	13.70	14.40	10.0	18.6					
4.7	15.00	16.50	9.5	17.0					
5.6	17.60	19.30	8.5	16.0					
6.8	21.20	23.30	8.0	13.5					
10	33.20	36.50	6.8	12.0					

#### Notes

- <sup>(1)</sup> All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +125 °C
- $^{(3)}$  DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- $^{(4)}\,$  DC current (A) that will cause  $L_0$  to drop approximately 20 %
- The part temperature (ambient + temp. rise) should not exceed (5) 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

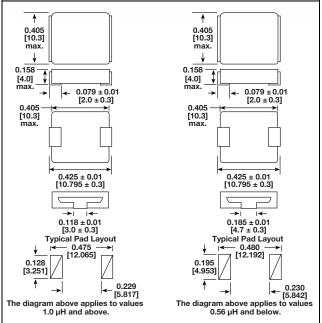
### FEATURES

- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/µH, in this package size
- RoHS Handles high transient current spikes without COMPLIANT saturation HALOGEN FREE
- Ultra low buzz noise, due to composite construction
- (5-2008) Material categorization: for definitions of compliance please see <a href="http://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>

#### **APPLICATIONS**

- PDA/notebook/desktop/server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

### **DIMENSIONS** in inches [millimeters]



DESCRIPTION	l					
IHLP-4040DZ-01 MODEL	<b>6.8 μΗ</b> INDUCTANCE VALUE	± 20 % INDUCTANCE TOLERANCE	ER PACKAGE CODE	<b>e3</b> JEDEC <sup>®</sup> LEAD (Pb)-F	<b>e3</b> EDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD	
GLOBAL PAR	T NUMBER					
PRODUCT FAN	P 4 0	4 0 D Z SIZE	E R 6 PACKAGE IN CODE	R 8 M NDUCTANCE TOL VALUE	0 1 SERIES	

Revision: 18-Sep-15

For technical questions, contact: magnetics@vishay.com

Document Number: 34193

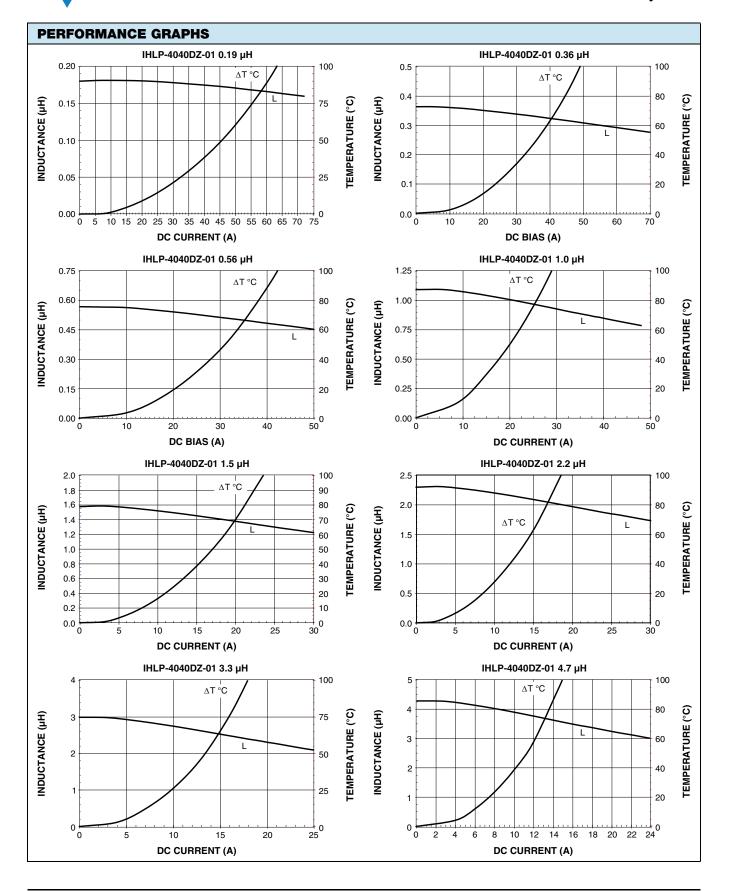
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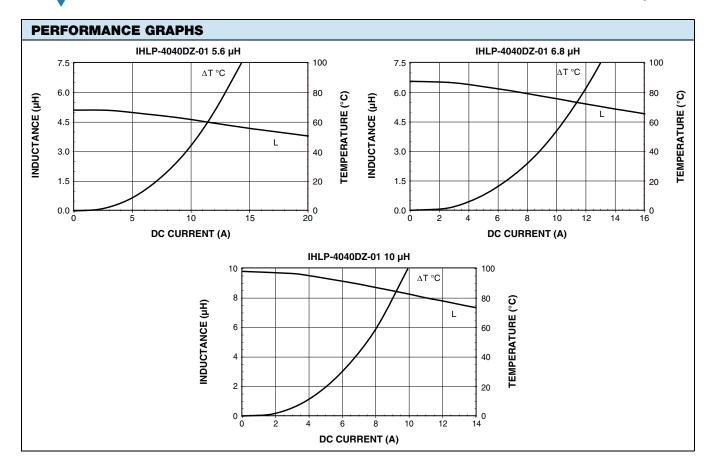
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