

# Low Profile, High Current Inductor


**FEATURES**

- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/ $\mu\text{H}$ , in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- RoHS compliant


**APPLICATIONS**

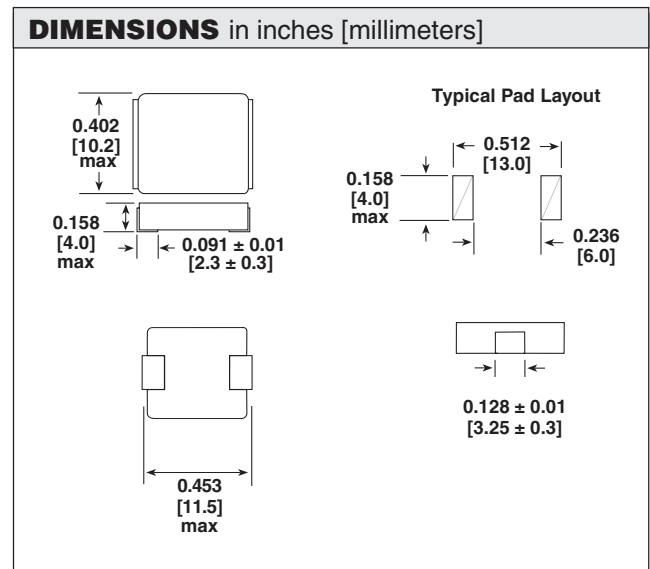
- PDA/Notebook/Desktop/Server applications
- High current, POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Arrays

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.

<b>STANDARD ELECTRICAL SPECIFICATIONS</b>				
Lo INDUCTANCE $\mu\text{H} \pm 20\%$ AT 100 kHz, .25 V, 0 A	DCR $\text{m}\Omega$ TYPICAL 25 °C	DCR $\text{m}\Omega$ MAX 25 °C	HEAT RATING CURRENT DC AMPS <sup>3</sup> TYPICAL	SATURATION CURRENT DC AMPS <sup>4</sup> TYPICAL
0.19	0.70	0.80	38	60
0.36	1.10	1.20	30	50
0.56	1.60	1.70	25	40

**NOTES:**

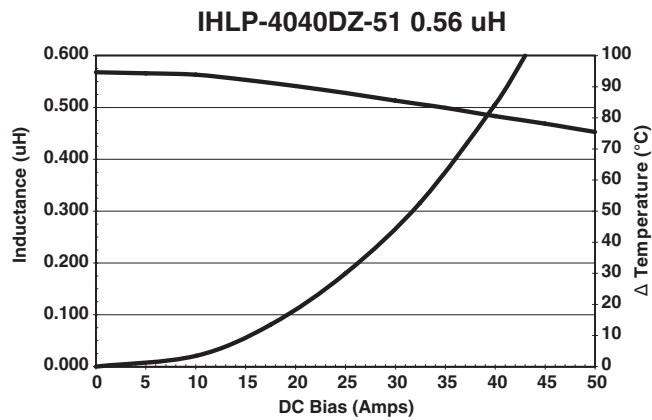
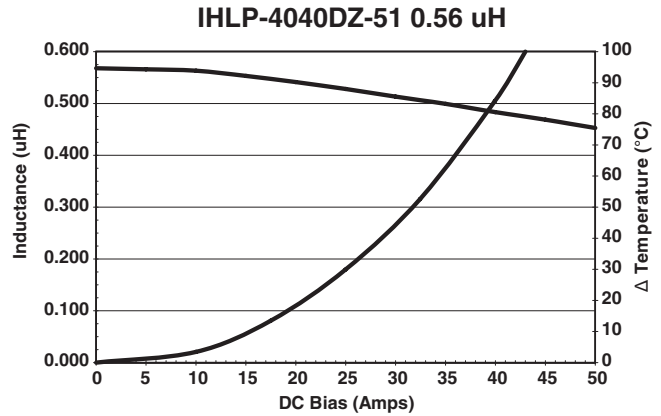
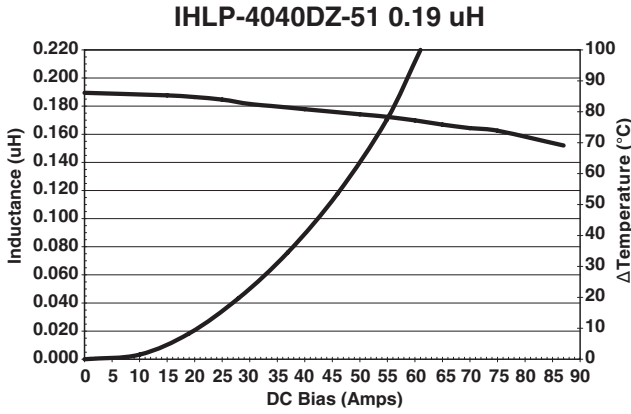
1. All test data is referenced to 25 °C ambient.
2. Operating Temperature Range - 55 °C to + 125 °C.
3. DC current (A) that will cause an approximate  $\Delta T$  of 40 °C.
4. DC current (A) that will cause Lo to drop approximately 20 %.
5. The part temperature (ambient + temp rise) should not exceed 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.



<b>DESCRIPTION</b>																	
IHLP-4040DZ-51	0.36 $\mu\text{H}$	$\pm 20\%$	ER	e2													
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD FREE STANDARD													
<b>GLOBAL PART NUMBER</b>																	
I	H	L	P	4	0	4	0	D	Z	E	R	R	3	6	M	5	1
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE		INDUCTANCE TOLERANCE		SERIES			



**PERFORMANCE GRAPHS**





## Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.