

IHLP® Commercial Inductors, High Saturation Series, 10 % DCR Tolerance



DESIGN SUPPORT TOOLS

3D
Models
Available

 Design Tools Available



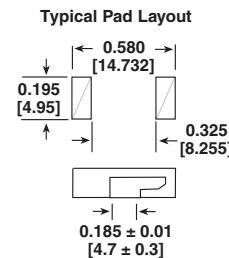
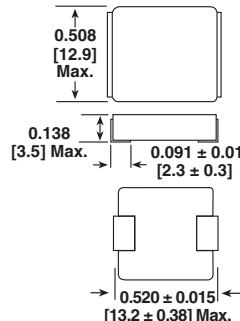
FEATURES

- Lowest height (3.5 mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/μH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- IHLP design. PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

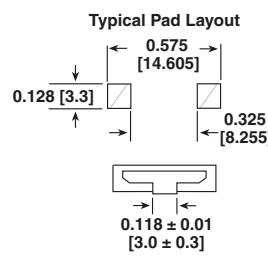
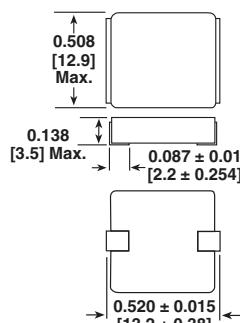
APPLICATIONS

- Tolerance DCR for current sense applications
- Improved current balance in phased power supplies
- Improved thermal management
- PDA / notebook / desktop / server and battery powered devices
- High current, low profile POL converters
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

DIMENSIONS in inches [millimeters]



The diagram applies to values 0.6 μH and below.



The diagram applies to values 0.68 μH and above.

STANDARD ELECTRICAL SPECIFICATIONS

L ₀ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR ± 10 % AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾
0.60	1.85	29	51
0.68	2.34	28	49
1.0	3.21	24	40
1.5	4.97	19	35
2.2	7.20	16	29
3.3	10.69	12	27
4.7	14.27	10	24
5.6	18.19	9.5	19
10	30.86	7	14

Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +125 °C
- 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
- Rated operating voltage (across inductor) = 75 V

(1) DC current (A) that will cause an approximate ΔT of 40 °C
(2) DC current (A) that will cause L₀ to drop approximately 20 %

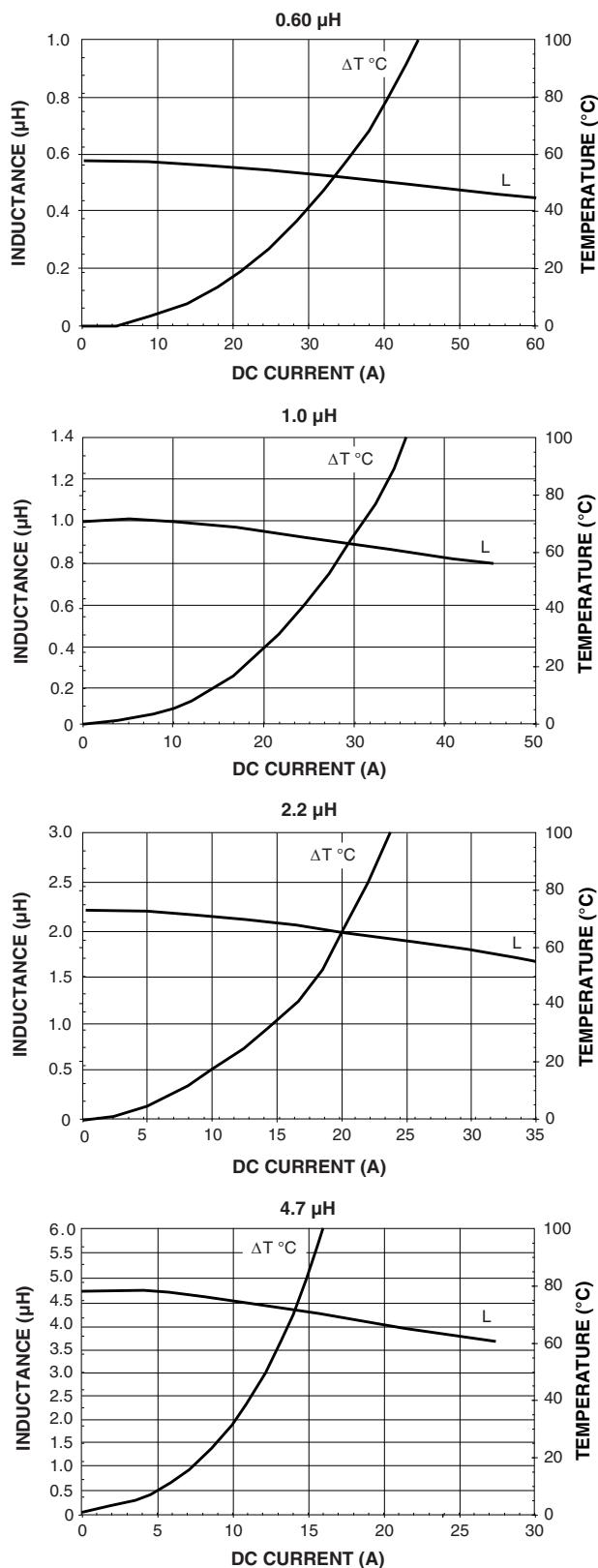
DESCRIPTION

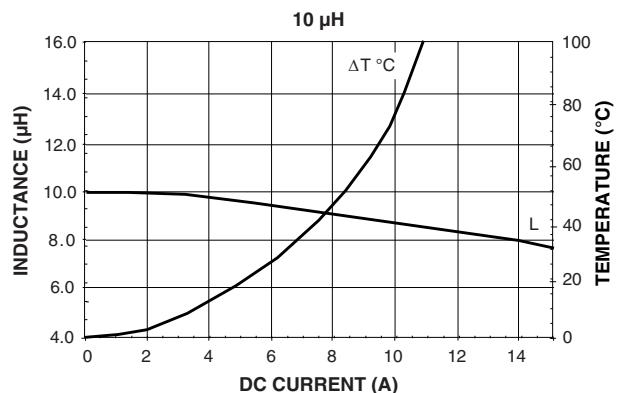
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD
IHLP-5050CE-06	1.0 μH	± 20 %	ER	e3

GLOBAL PART NUMBER																																						
<table border="1"> <tr> <td>I</td><td>H</td><td>L</td><td>P</td><td>5</td><td>0</td><td>5</td><td>0</td><td>C</td><td>E</td><td>E</td><td>R</td><td>1</td><td>R</td><td>0</td><td>M</td><td>0</td><td>6</td> </tr> <tr> <td colspan="4">PRODUCT FAMILY</td><td colspan="4">SIZE</td><td colspan="4">PACKAGE CODE</td><td colspan="4">INDUCTANCE VALUE</td><td colspan="2">TOL.</td><td colspan="2">SERIES</td></tr> </table>	I	H	L	P	5	0	5	0	C	E	E	R	1	R	0	M	0	6	PRODUCT FAMILY				SIZE				PACKAGE CODE				INDUCTANCE VALUE				TOL.		SERIES	
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PATENT(S): www.vishay.com/patents

This Vishay product is protected by one or more United States and international patents.

PERFORMANCE GRAPHS


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