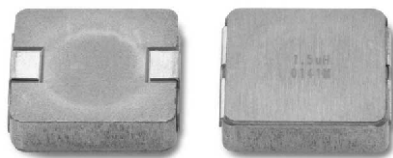


# **IHLP® Tin / Lead Inductors, High Saturation Series, 10 % DCR Tolerance**



**DESIGN SUPPORT TOOLS** click logo to get started



STANDARD ELECTRICAL SPECIFICATIONS			
$L_0$ INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A ( $\mu$ H)	DCR $\pm 10\%$ AT 25 °C (m $\Omega$ )	HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>
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
- <sup>(1)</sup> DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- <sup>(2)</sup> DC current (A) that will cause  $L_0$  to drop approximately 20 %

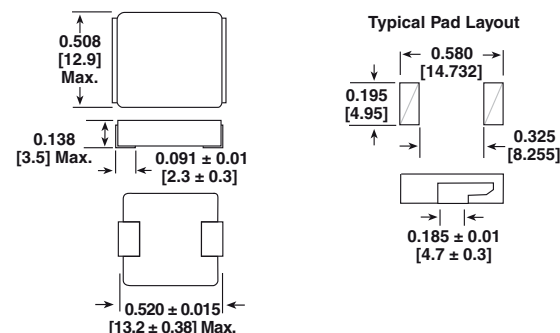
## **FEATURES**

- Lowest height (3.5 mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/ $\mu$ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Tin / lead Sn / Pb plated (non dipped) terminals
- IHLP design. PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)

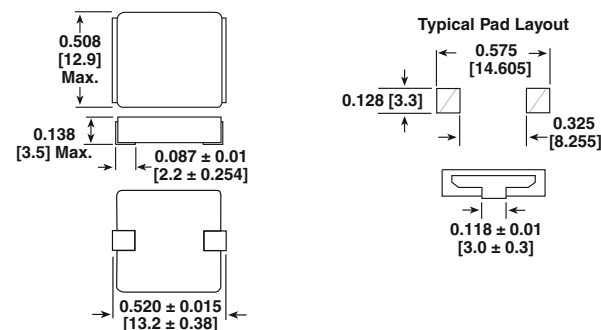
## **APPLICATIONS**

- 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 above applies to values 0.6  $\mu$ H and below.

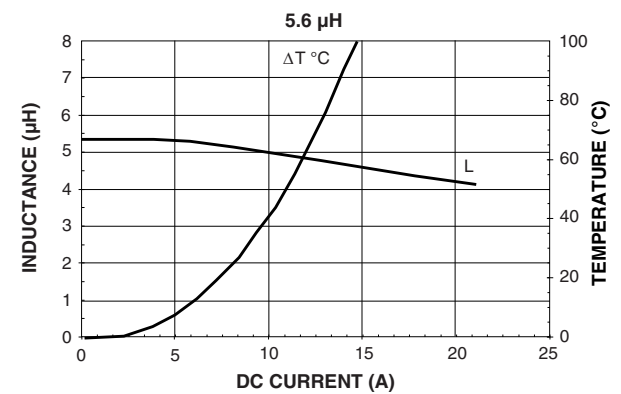
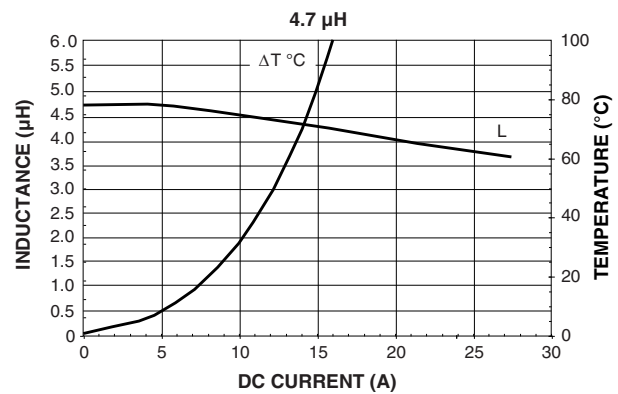
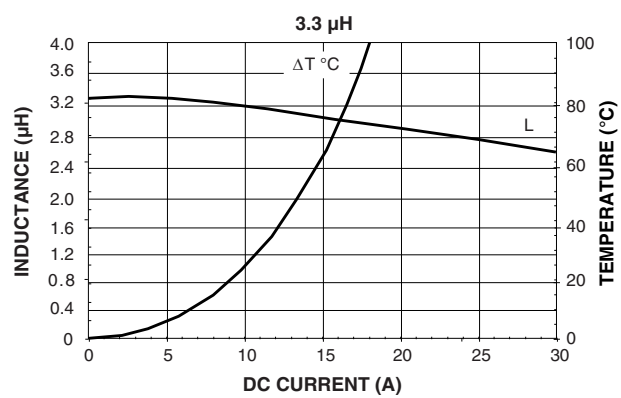
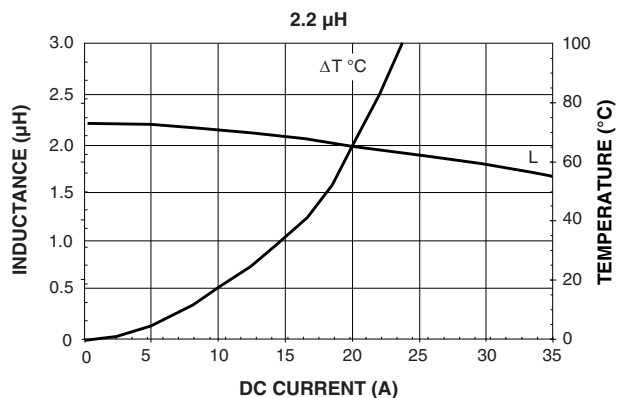
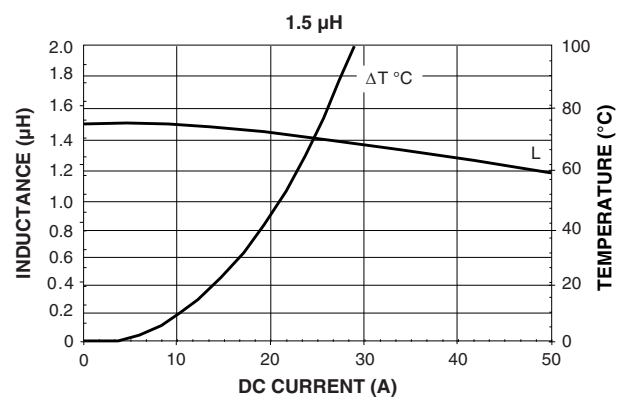
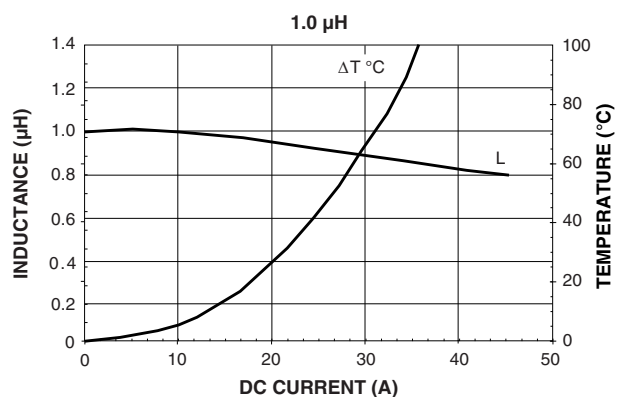
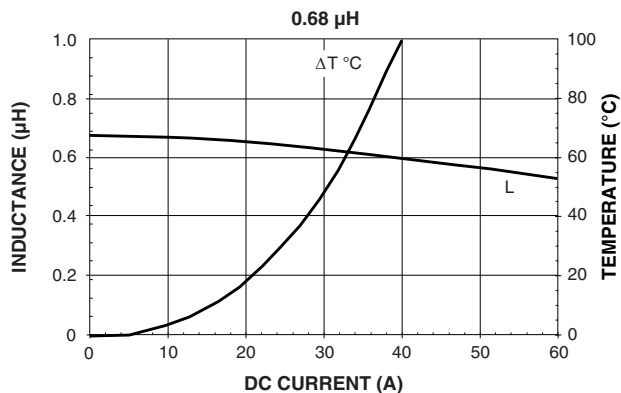
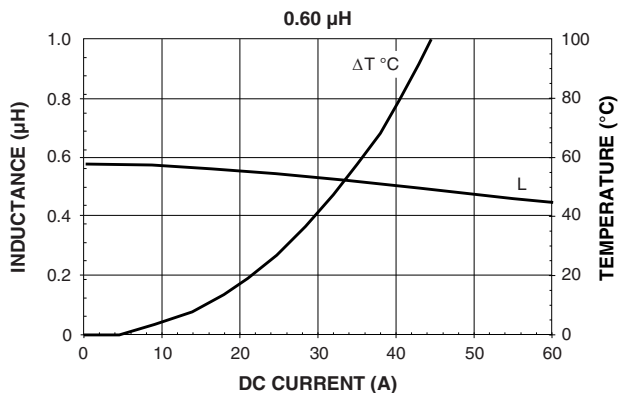


The diagram above applies to values 0.68  $\mu$ H and above.

DESCRIPTION																	
IHLP-5050CE-L6				1.0 $\mu$ H				$\pm 20\%$				RZ					
MODEL				INDUCTANCE VALUE				INDUCTANCE TOLERANCE				PACKAGE CODE					
GLOBAL PART NUMBER																	
I	H	L	P	5	0	5	0	C	E	R	Z	1	R	0	M	L	6
PRODUCT FAMILY				SIZE					PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES		

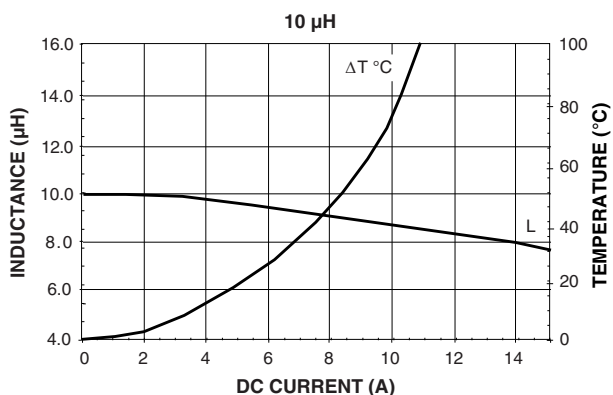


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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