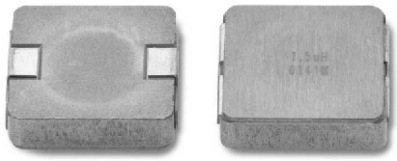
Low Profile, IHLP® Power Inductors - DC Resistance Tolerance 5 %



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.

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
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

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)

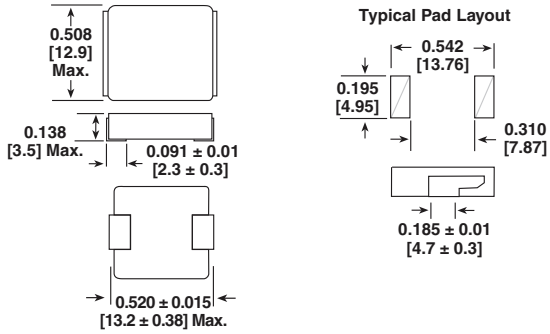
STANDARD ELECTRICAL SPECIFICATIONS

L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR ± 5 % AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (3)	SATURATION CURRENT DC TYP. (A) (4)
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

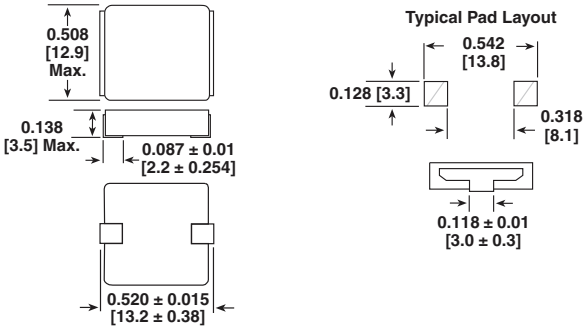
Notes

(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 ΔT of 40 °C
(4) DC current (A) that will cause L_0 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.

DIMENSIONS in inches [millimeters]



The diagram above applies to values 0.6 µH and below.



The diagram above applies to values 0.68 µH and above.

DESCRIPTION

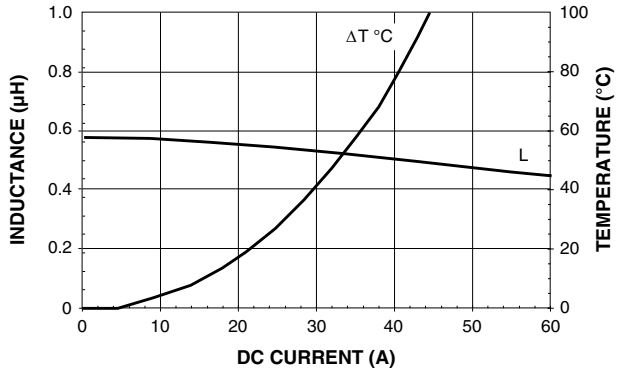
IHLP-5050CE-07	1.0 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

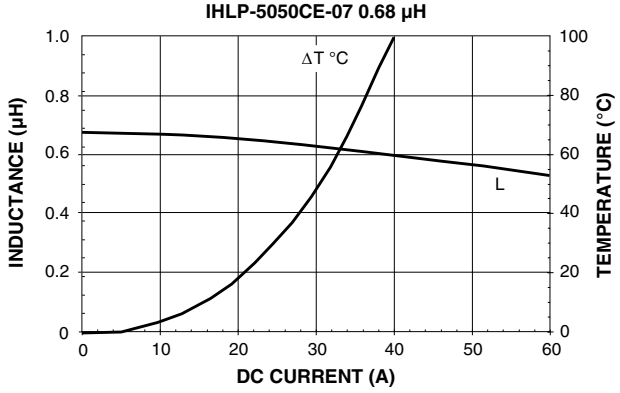
I	H	L	P	5	0	5	0	C	E	E	R	1	R	0	M	0	7
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

PERFORMANCE GRAPHS

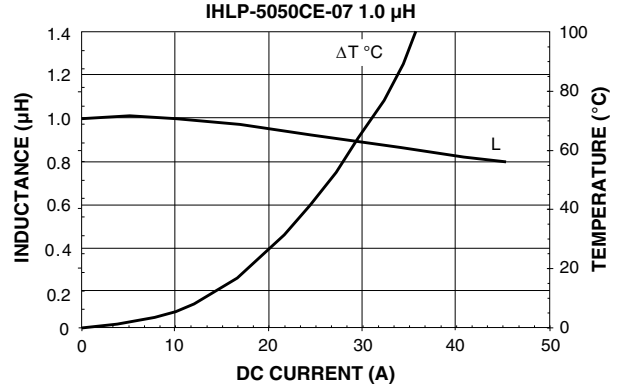
IHLP-5050CE-07 0.60 µH



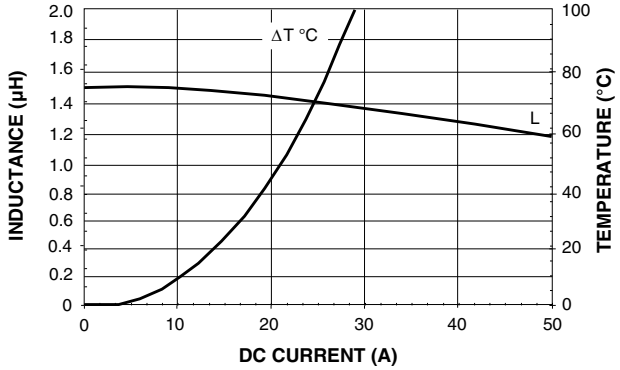
IHLP-5050CE-07 0.68 µH



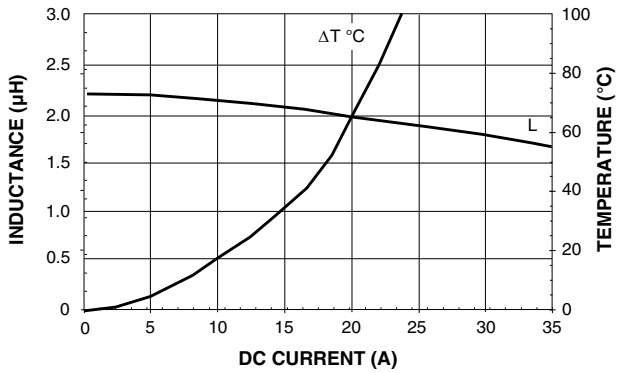
IHLP-5050CE-07 1.0 µH



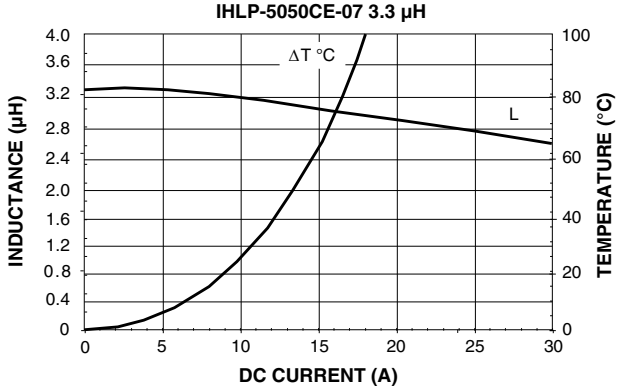
IHLP-5050CE-07 1.5 µH



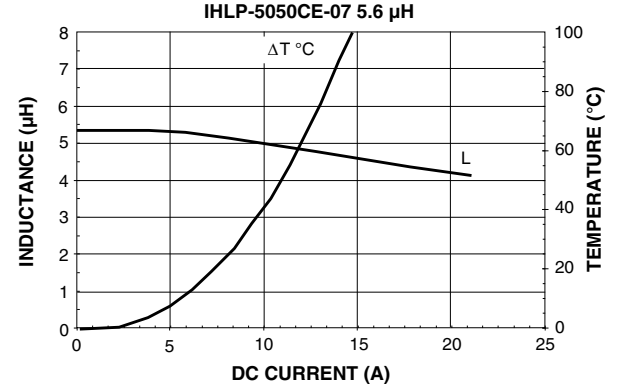
IHLP-5050CE-07 2.2 µH



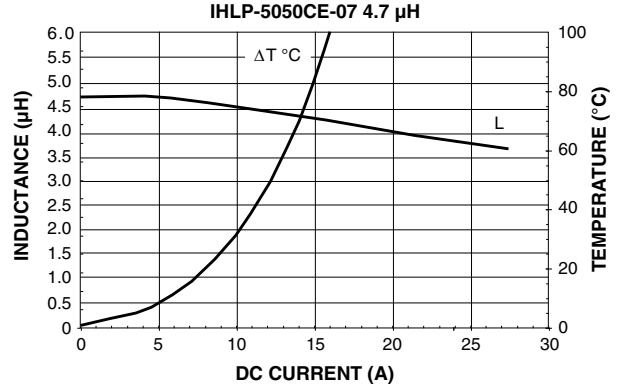
IHLP-5050CE-07 3.3 µH



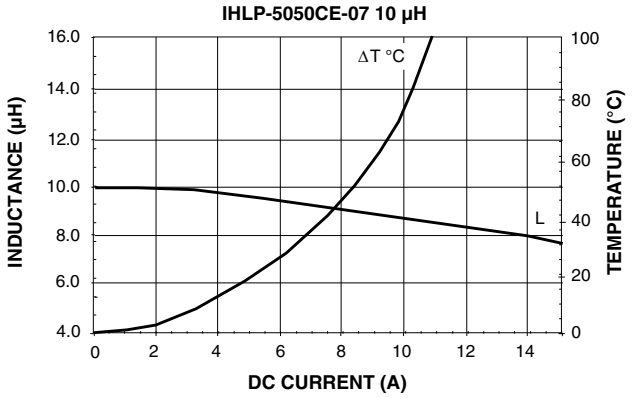
IHLP-5050CE-07 5.6 µH



IHLP-5050CE-07 4.7 µH



PERFORMANCE GRAPHS



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