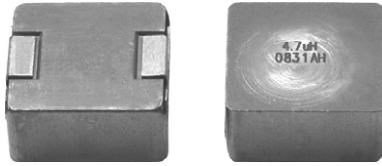


Low Profile, High Current IHLP® Inductors



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 ₀ 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) ⁽³⁾	SATURATION CURRENT DC TYP. (A) ⁽⁴⁾
0.10	0.47	0.50	60.0	120.0
0.15	0.53	0.60	55.0	118.0
0.22	0.63	0.70	53.0	112.0
0.30	0.70	0.80	48.0	72.0
0.33	0.83	0.90	46.0	65.0
0.40	0.90	1.0	44.0	64.0
0.47	1.0	1.2	41.0	63.0
0.56	1.2	1.4	37.0	62.0
0.68	1.4	1.6	35.0	60.0
0.82	1.6	1.9	33.0	50.0
1.0	1.7	2.0	32.0	49.0
1.2	2.1	2.5	30.0	48.0
1.5	2.5	3.0	27.0	45.0
1.8	2.8	3.2	24.0	41.0
2.2	3.5	4.2	22.0	40.0
3.3	5.7	6.8	18.0	35.0
4.7	9.3	11.2	13.5	30.0
5.6	9.3	10	13.5	26.5
6.8	13.1	14	11.5	16.5
8.2	14.5	15.5	10.5	16.0
10	16.4	17.2	10.0	15.5

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 L₀ 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.

DESCRIPTION				
IHLP-5050FD-A1	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	F	D	E	R	1	R	0	M	A	1
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			

FEATURES

- 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
- Excellent temperature stability for inductance and saturation
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

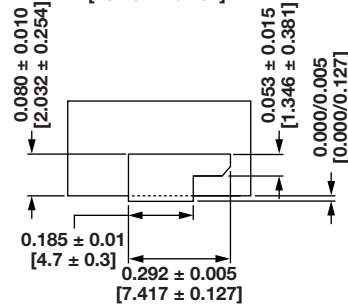
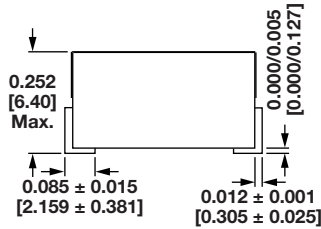
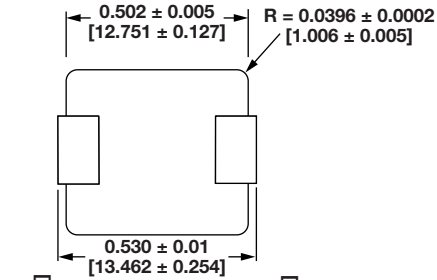
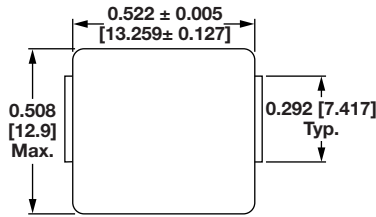
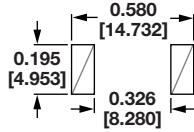
- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment/navigation systems
- Noise suppression for motors
 - Windshield wipers
 - Power seats
 - Power mirrors
 - Heating and ventilation blowers
 - HID lighting
- LED drivers



DIMENSIONS in inches [millimeters]

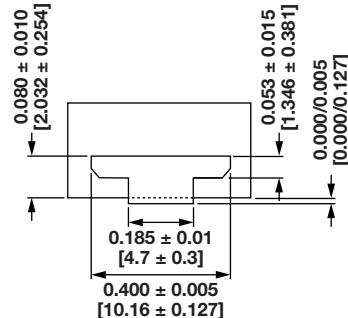
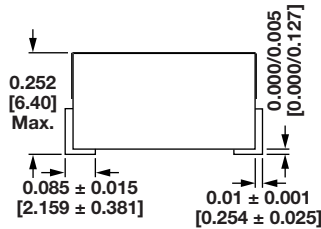
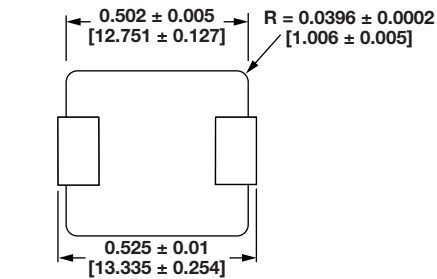
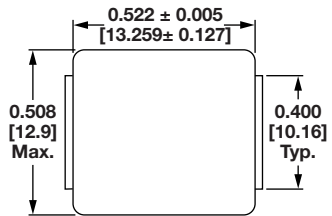
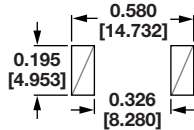
Values 0.82 μ H and lower

Typical Pad Layout



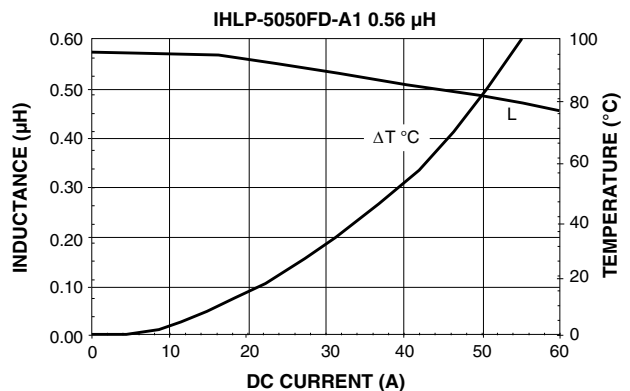
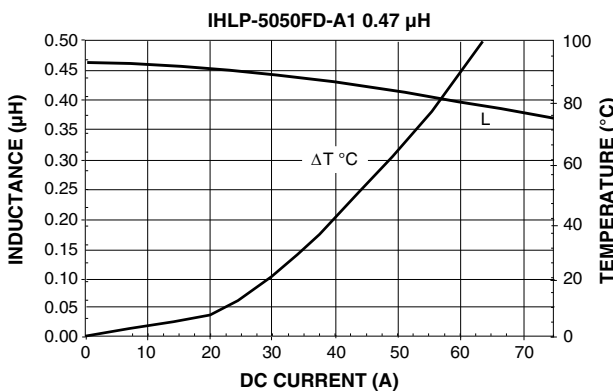
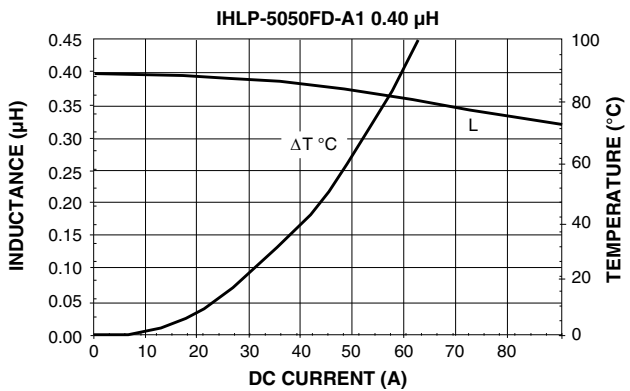
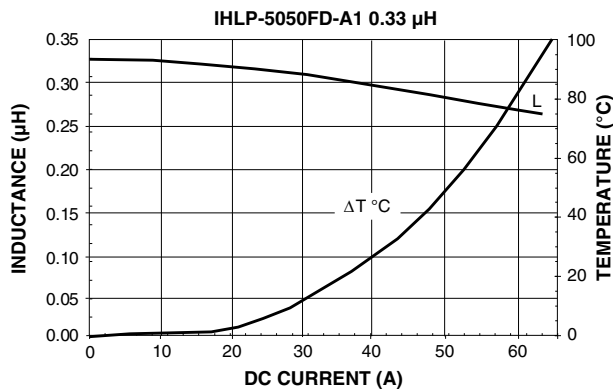
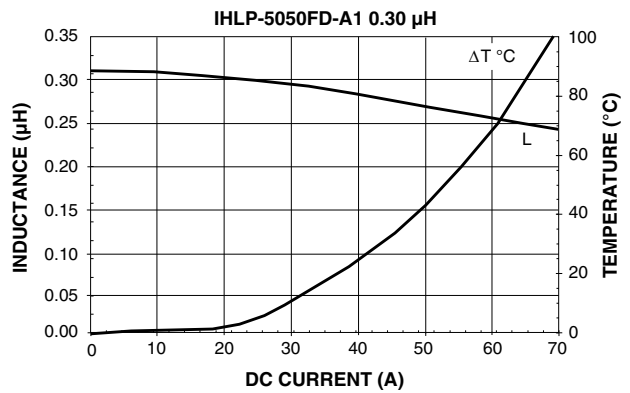
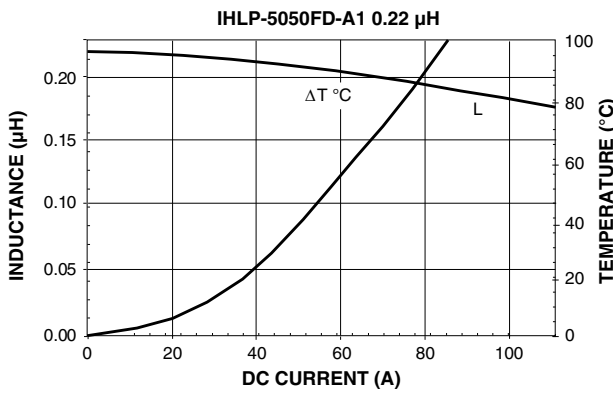
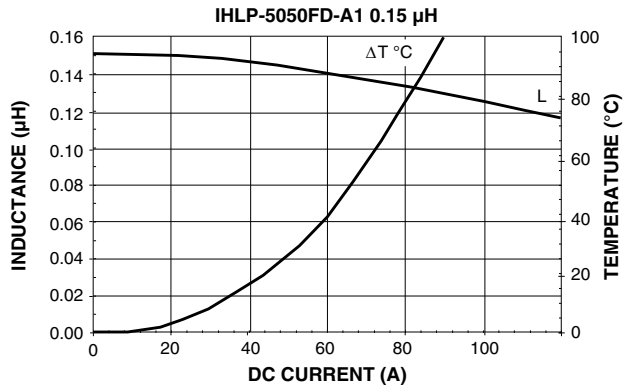
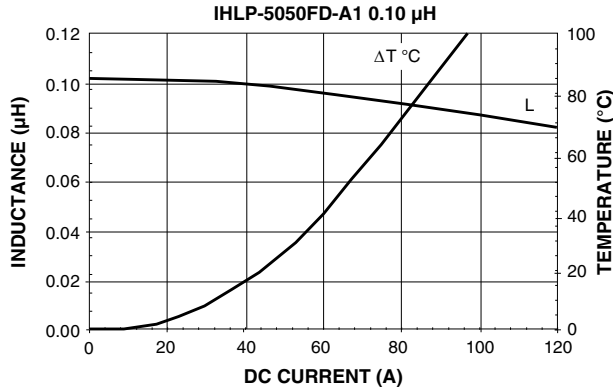
Values 1.0 μ H and higher

Typical Pad Layout



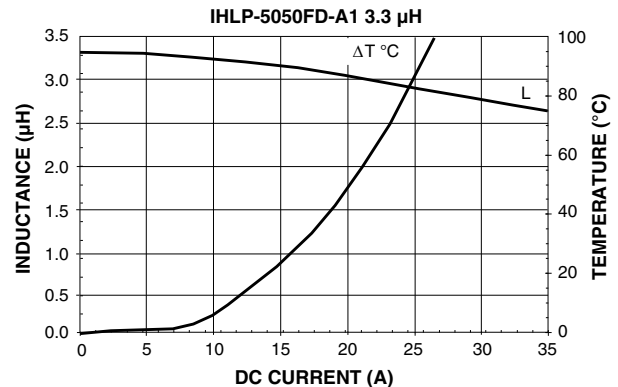
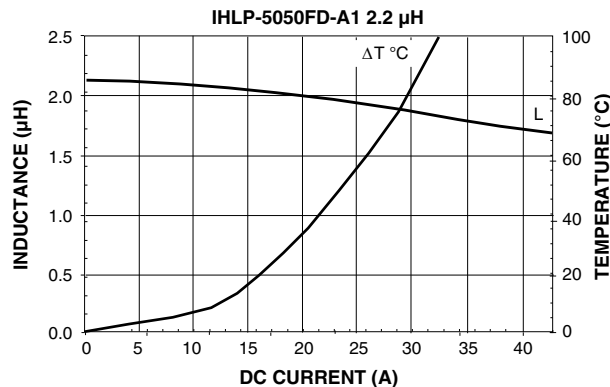
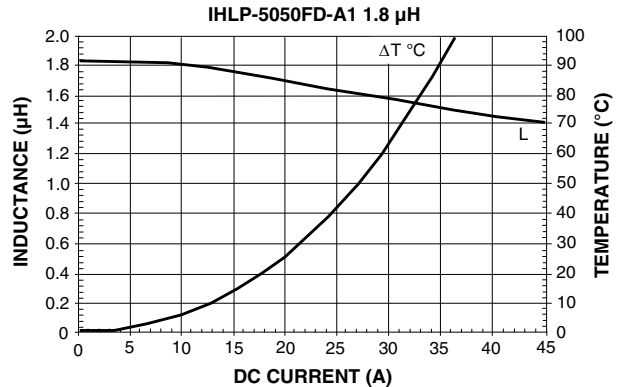
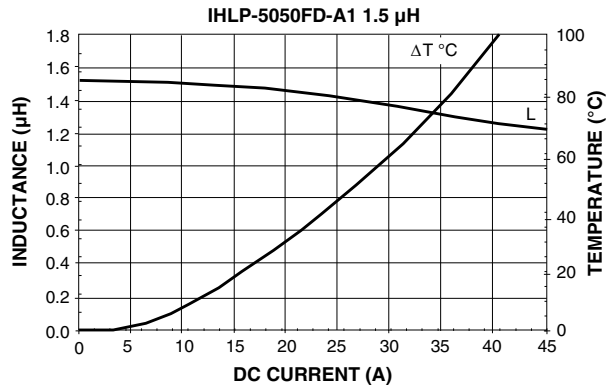
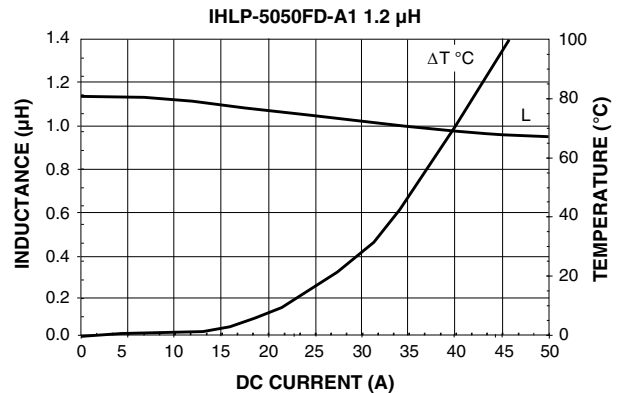
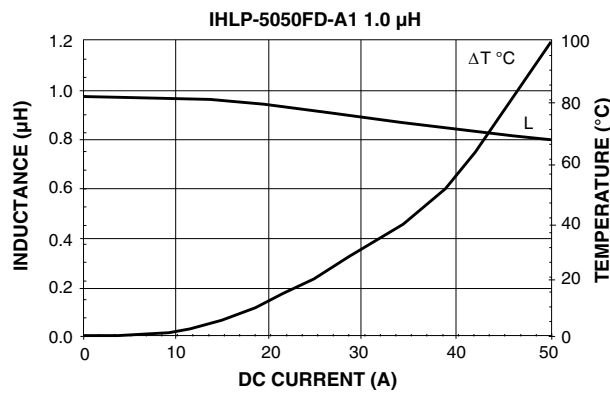
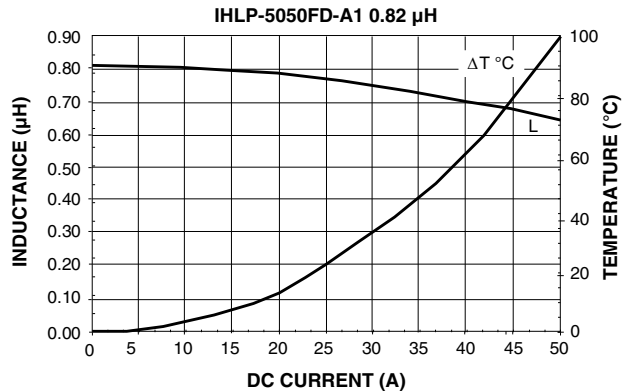
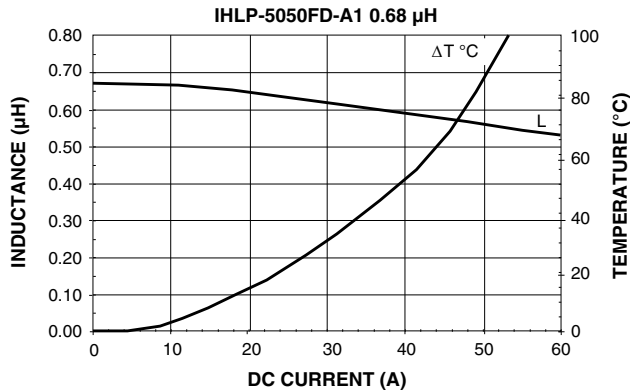


PERFORMANCE GRAPHS



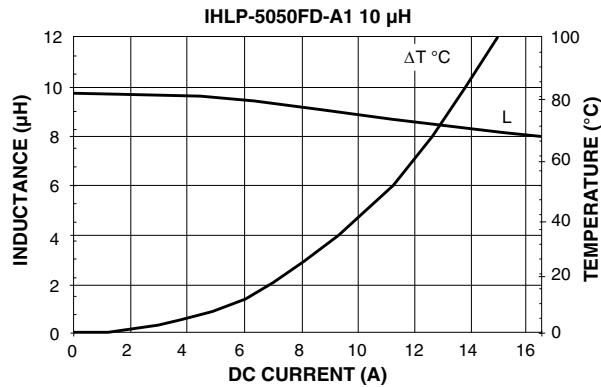
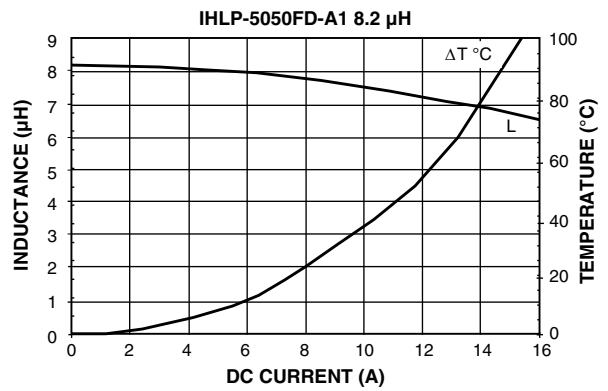
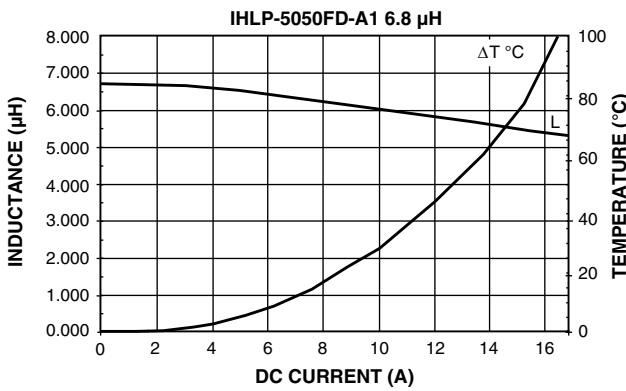
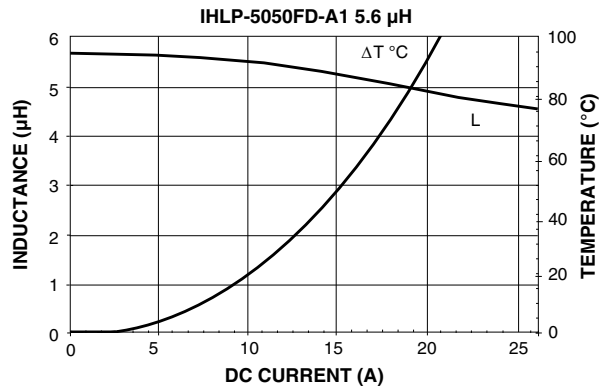
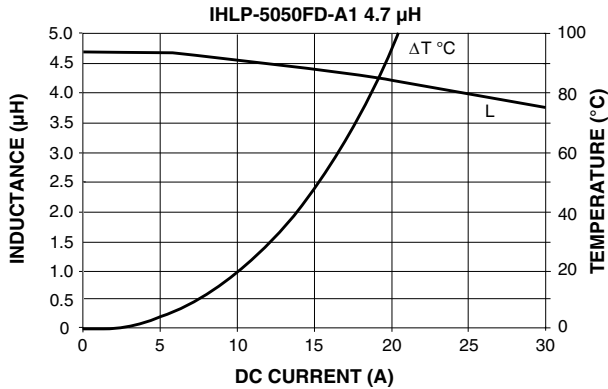


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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