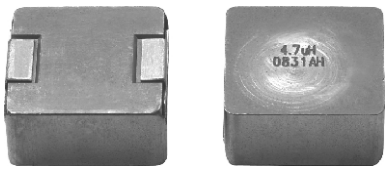
Low Profile, High Current IHLP® Inductors



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 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.

FEATURES

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

- 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

DESCRIPTION

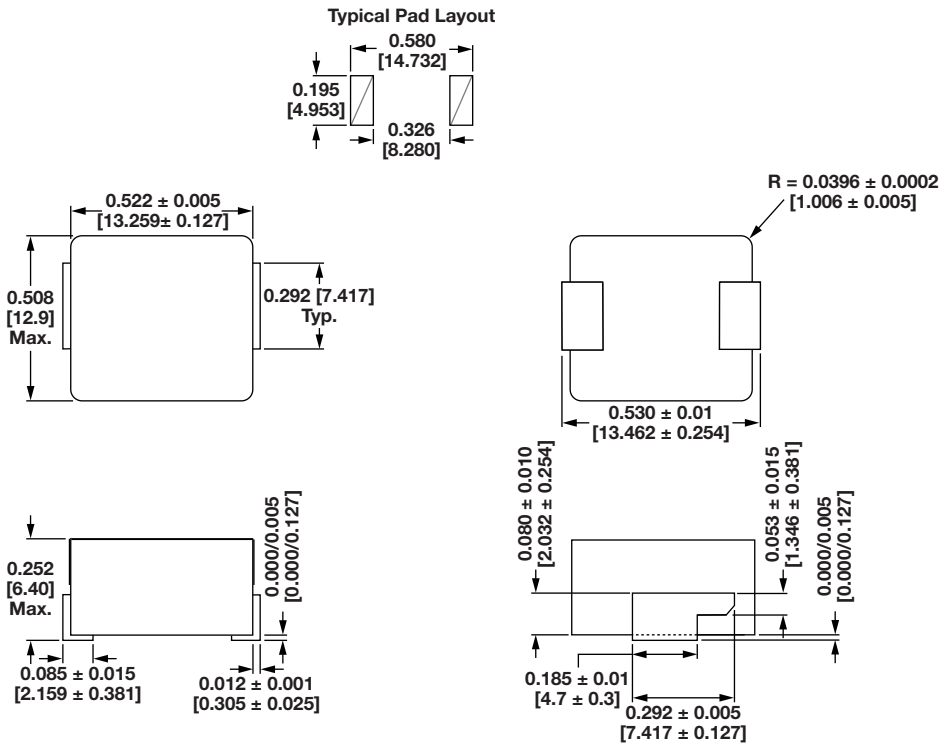
IHLP-5050FD-A1	1.0 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

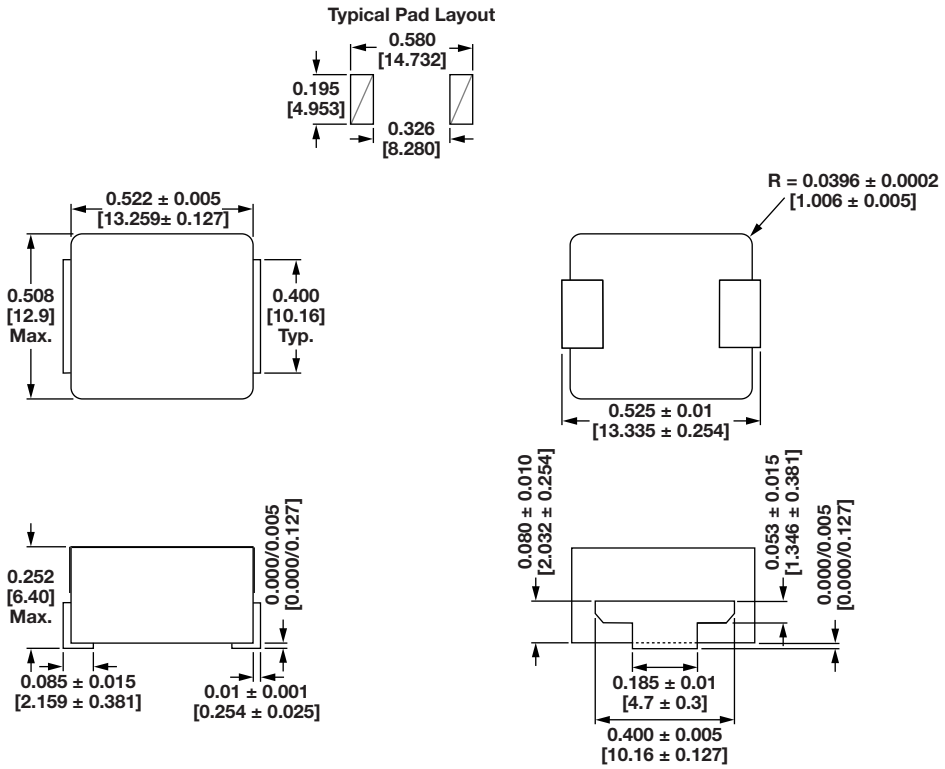
I	H	L	P	5	0	5	0	F	D	E	R	1	R	0	M	A	1
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

DIMENSIONS in inches [millimeters]

Values 0.82 µH and lower

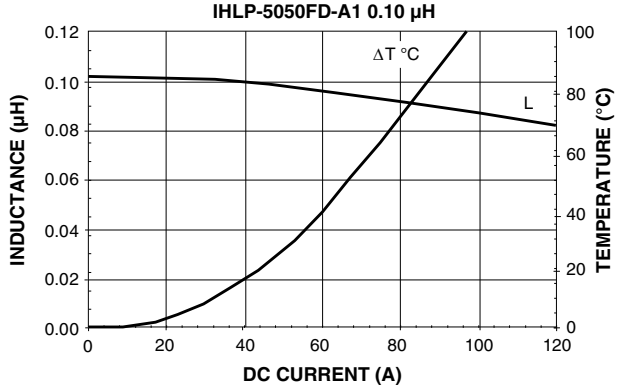


Values 1.0 µH and higher

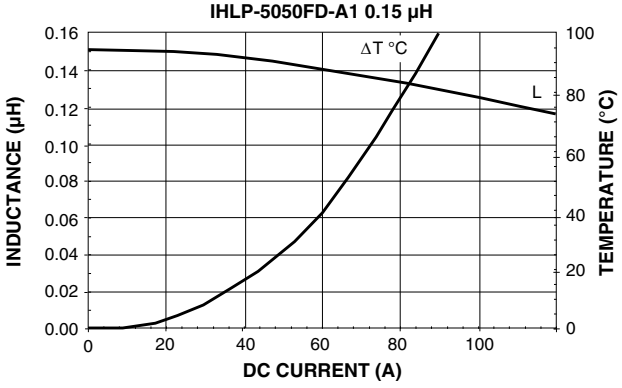


PERFORMANCE GRAPHS

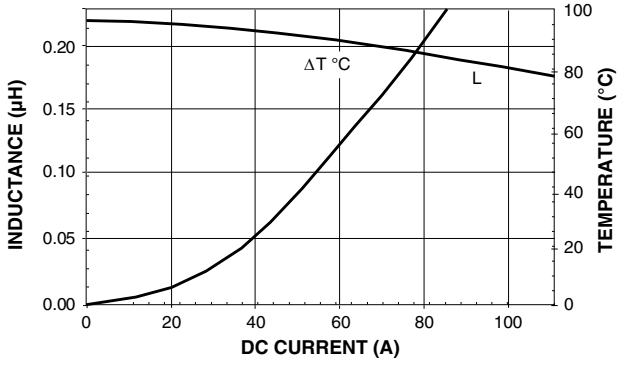
IHLP-5050FD-A1 0.10 µH



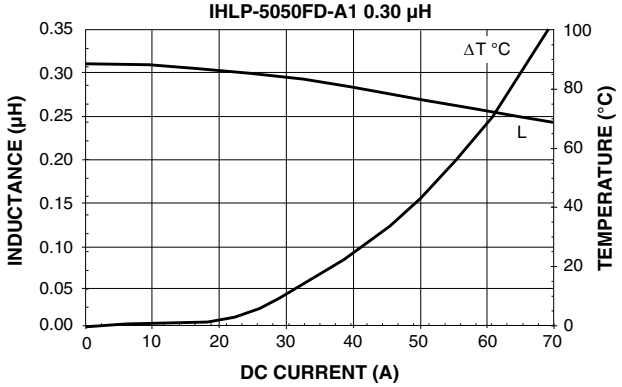
IHLP-5050FD-A1 0.15 µH



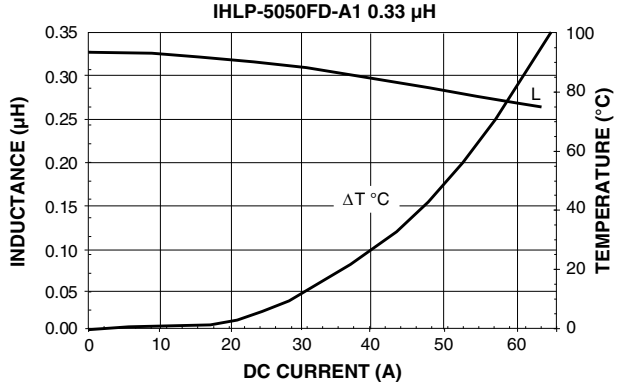
IHLP-5050FD-A1 0.22 µH



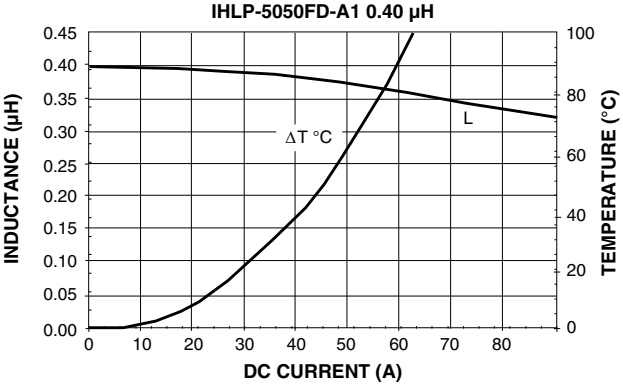
IHLP-5050FD-A1 0.30 µH



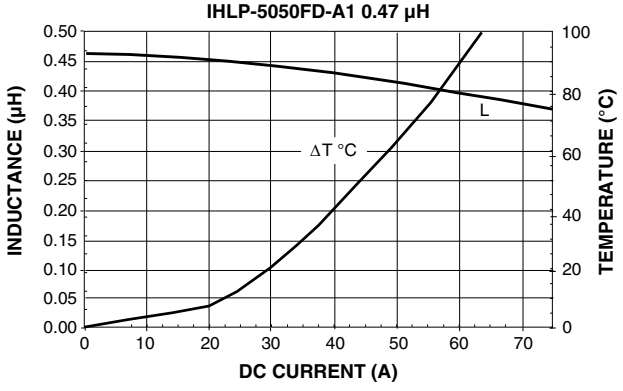
IHLP-5050FD-A1 0.33 µH



IHLP-5050FD-A1 0.40 µH



IHLP-5050FD-A1 0.47 µH



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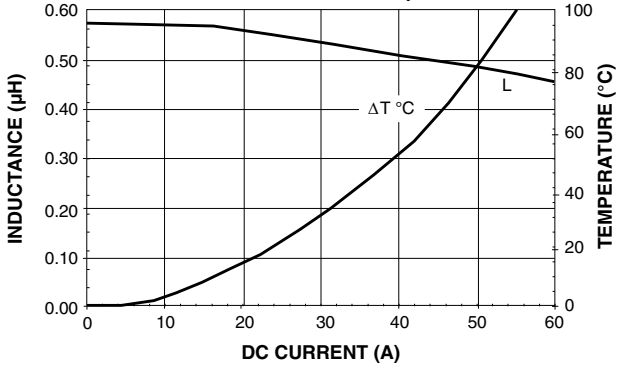
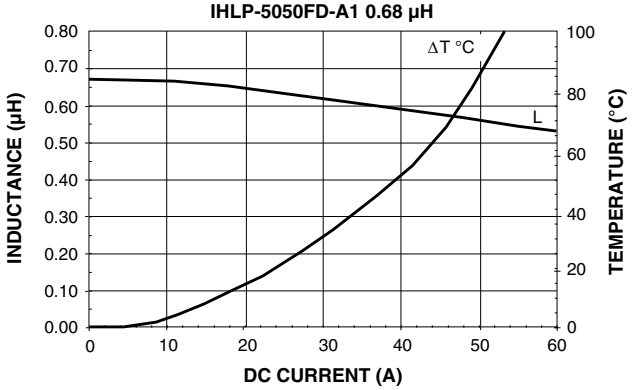
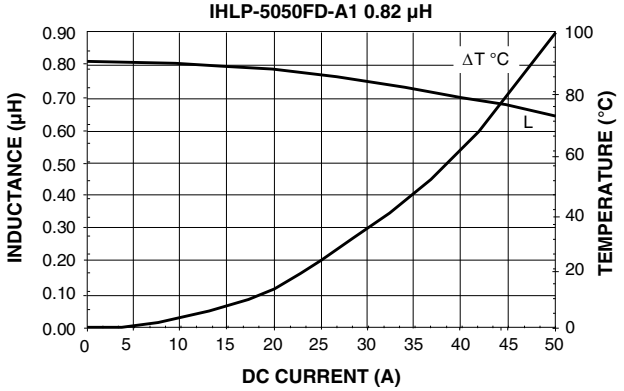


PERFORMANCE GRAPHS

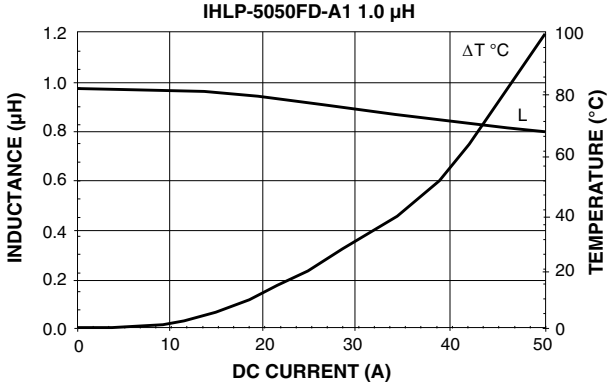
IHLP-5050FD-A1 0.68 µH



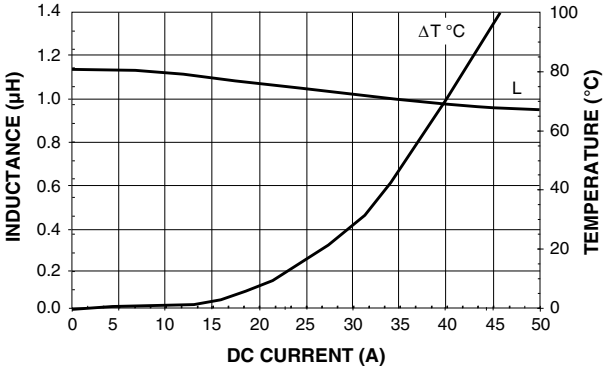
IHLP-5050FD-A1 0.82 µH



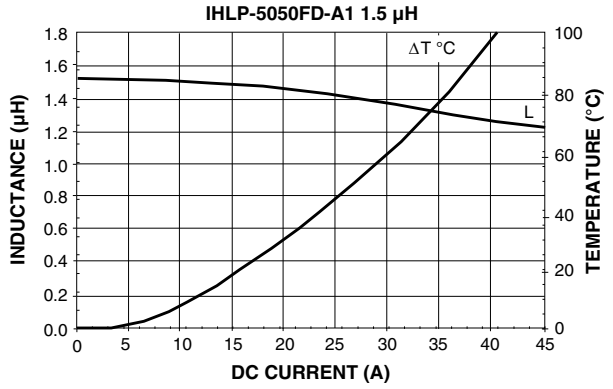
IHLP-5050FD-A1 1.0 µH



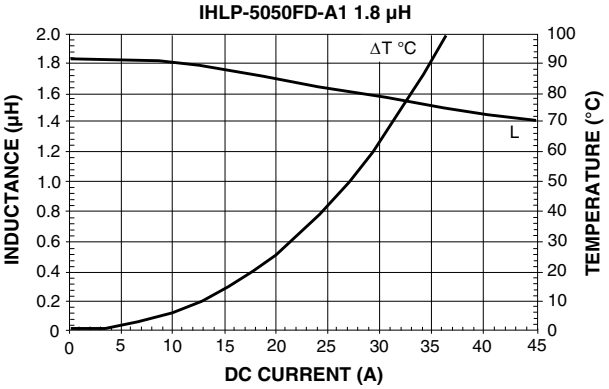
IHLP-5050FD-A1 1.2 µH



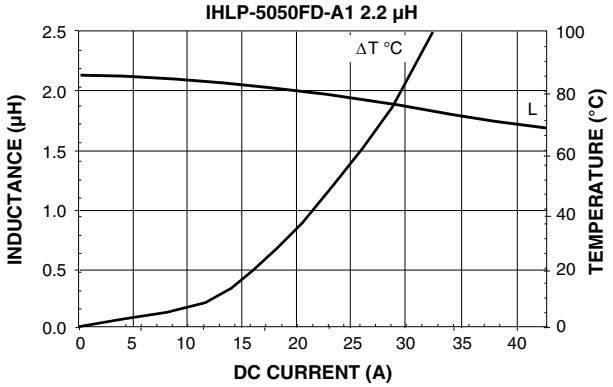
IHLP-5050FD-A1 1.5 µH



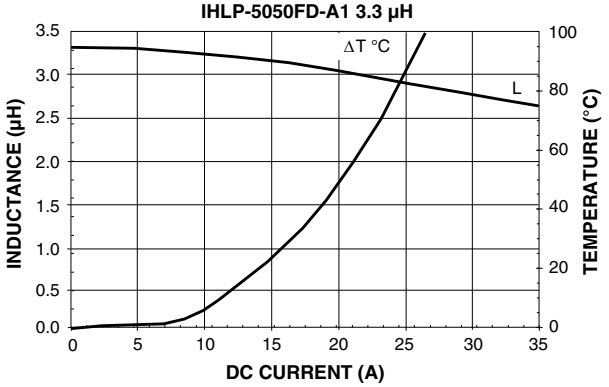
IHLP-5050FD-A1 1.8 µH



IHLP-5050FD-A1 2.2 µH

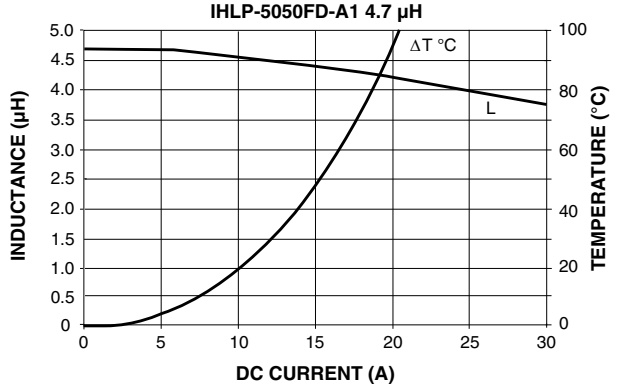


IHLP-5050FD-A1 3.3 µH

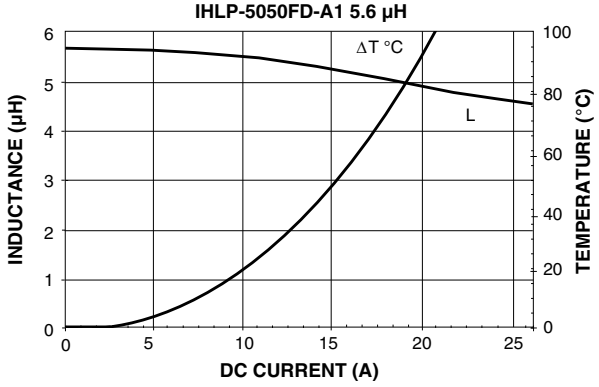


PERFORMANCE GRAPHS

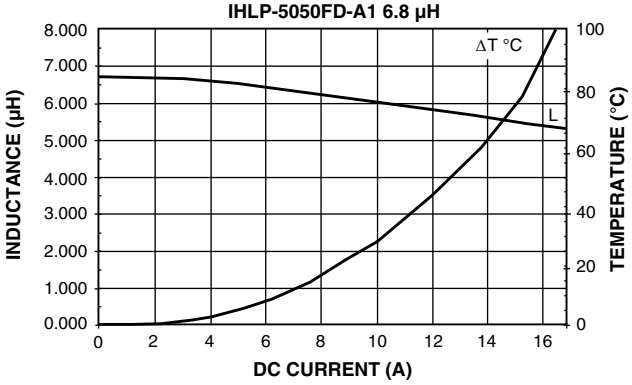
IHLP-5050FD-A1 4.7 µH



IHLP-5050FD-A1 5.6 µH



IHLP-5050FD-A1 6.8 µH



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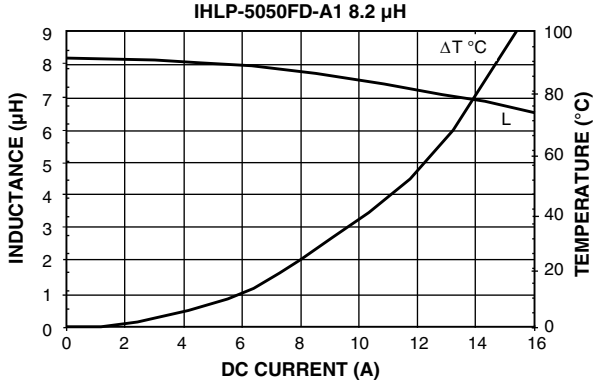
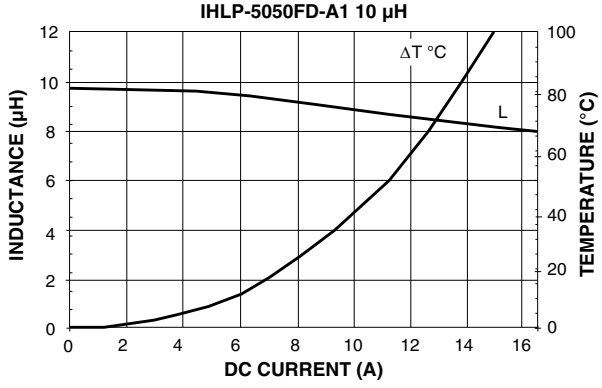


IHLP-5050FD-A1 10 µH



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- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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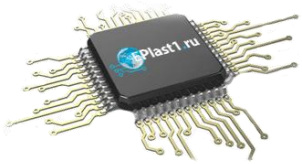
- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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