IHLP5050CEER6R8M01 Datasheet

https://www.DiGi-Electronics.com

DiGi Electronics Part Number	IHLP5050CEER6R8M01-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP5050CEER6R8M01
Description	FIXED IND 6.8UH 9A 22 MOHM SMD
Detailed Description	6.8 µH Shielded Molded Inductor 9 A 22mOhm Max Nonstandard

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RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
IHLP5050CEER6R8M01	Vishay Dale
Series:	Product Status:
IHLP-5050CE-01	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
6.8 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
9 A	18A
Shielding:	DC Resistance (DCR):
Shielded	22mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-55°C ~ 125°C
Inductance Frequency - Test:	Mounting Type:
100 kHz	Surface Mount
Package / Case:	Supplier Device Package:
Nonstandard	-
Size / Dimension:	Height - Seated (Max):
0.520" L x 0.508" W (13.20mm x 12.90mm)	0.138" (3.50mm)

Environmental & Export classification

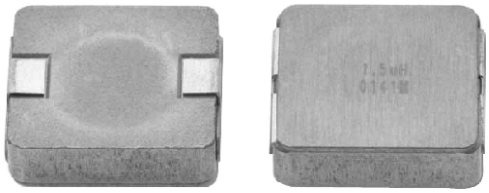
RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.4000	

VISHAY
www.vishay.com

IHLP-5050CE-01

Vishay Dale

IHLP® Commercial Inductors, High Saturation Series



DESIGN SUPPORT TOOLS click logo to get started

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

Pb-free
RoHS COMPLIANT
HALOGEN FREE GREEN (5-2008)

APPLICATIONS

- PDA / notebook / desktop / server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- 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 TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A) (2)
0.10	0.8	0.96	43	84
0.15	1	1.2	41	75
0.22	1.1	1.3	38.5	65
0.33	1.3	1.5	36.5	62
0.47	1.6	2	32	55
0.60	1.8	2.2	29	51
0.68	2.3	2.5	28	49
0.82	2.6	3	25	44
1.0	3.3	3.5	24	40
1.5	5.1	5.5	19	35
1.8	6.5	7	16.5	30
2.2	7.2	8	16	29
3.3	11	12	12	27
4.7	14.3	15	10	24
5.6	18.3	19	9.5	19
6.8	19.8	22	9	18
8.2	24.8	28	8.5	16
10	30.4	34	7	14

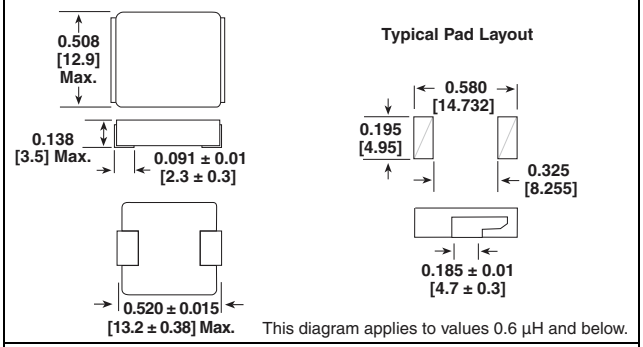
Notes

- 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

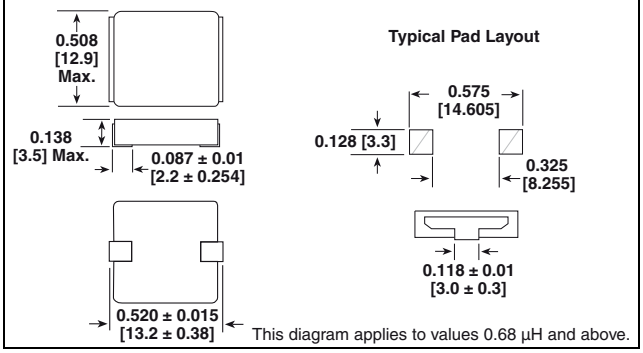
(1) DC current (A) that will cause an approximate ΔT of 40 °C

(2) DC current (A) that will cause L_0 to drop approximately 20 %

DIMENSIONS in inches [millimeters]



This diagram applies to values 0.6 µH and below.



This diagram applies to values 0.68 µH and above.

DESCRIPTION

IHLP-5050CE-01	1.0 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

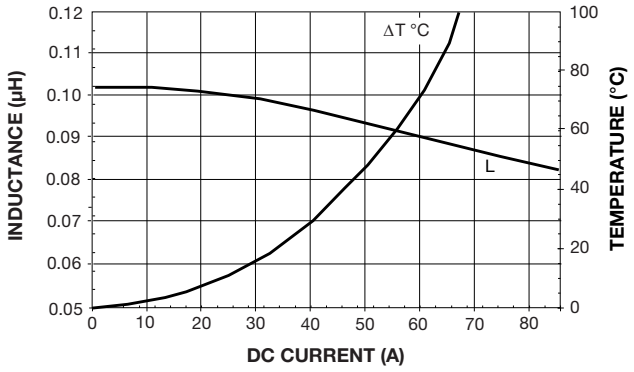
GLOBAL PART NUMBER

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

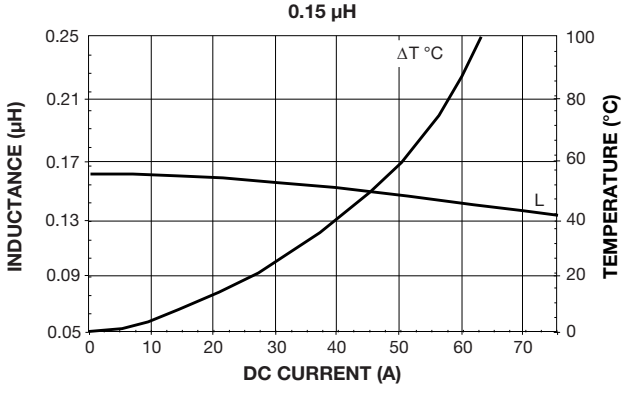
PATENT(S): www.vishay.com/patents
This Vishay product is protected by one or more United States and international patents.

PERFORMANCE GRAPHS

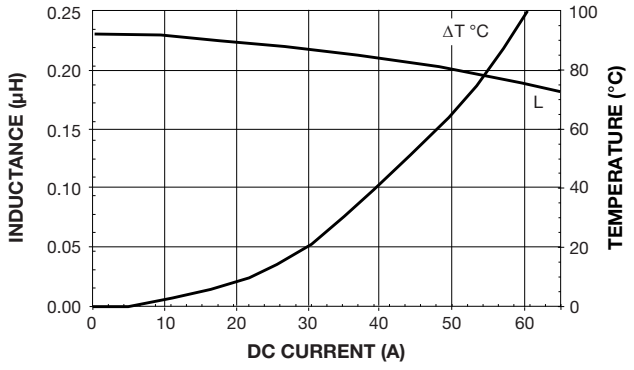
0.10 µH



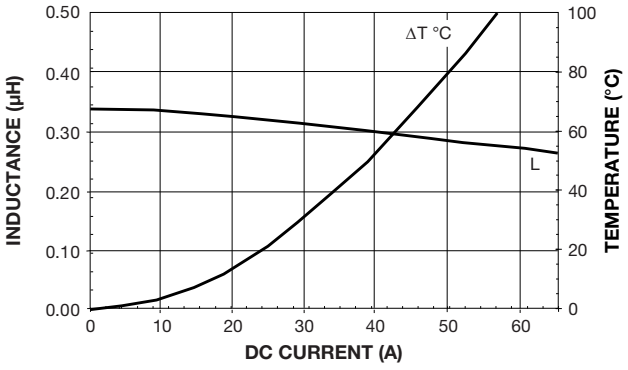
0.15 µH



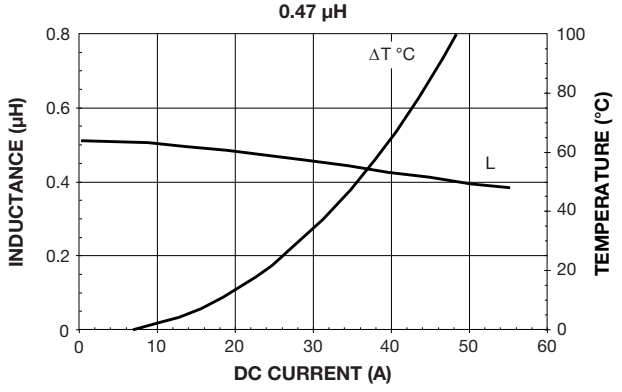
0.22 µH



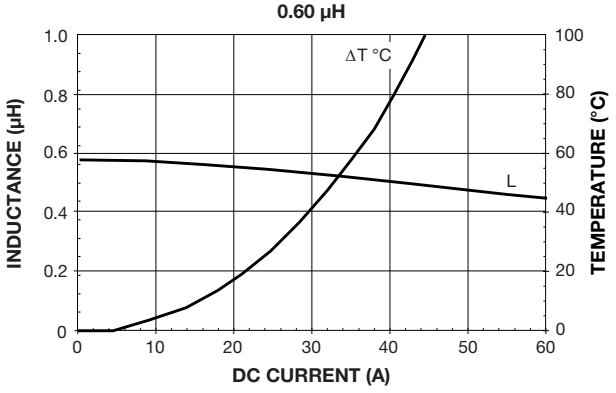
0.33 µH



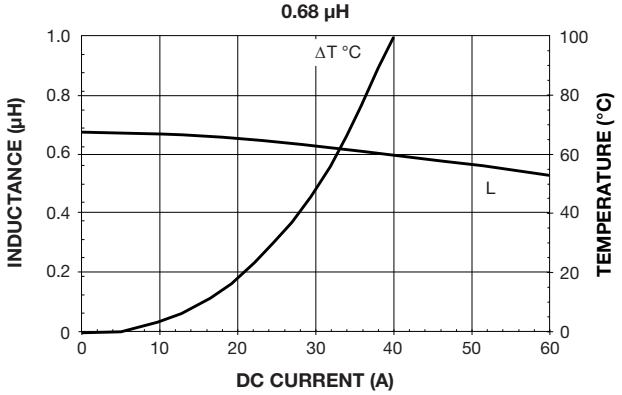
0.47 µH



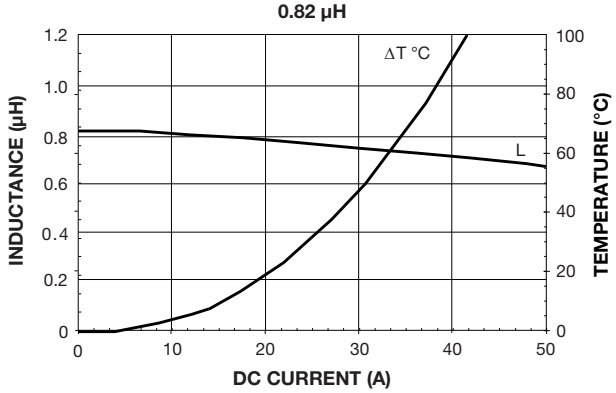
0.60 µH



0.68 µH

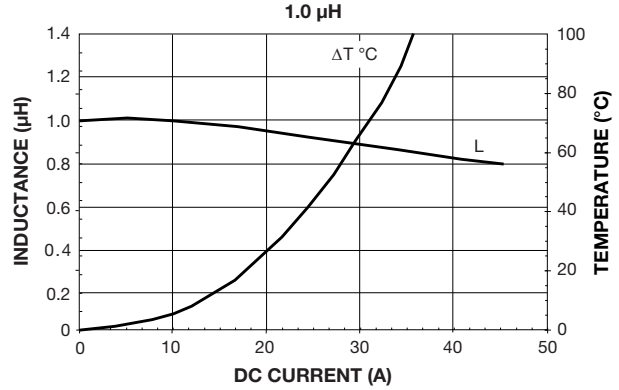


0.82 µH

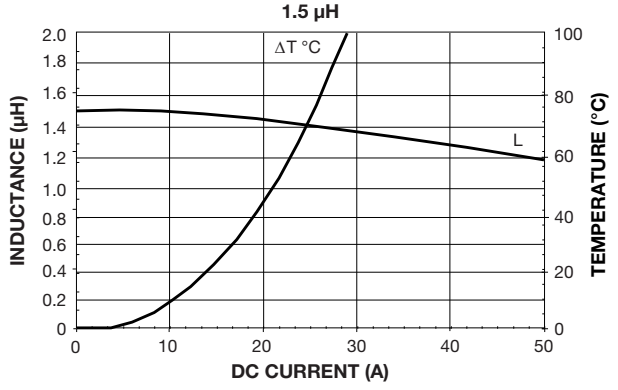


PERFORMANCE GRAPHS

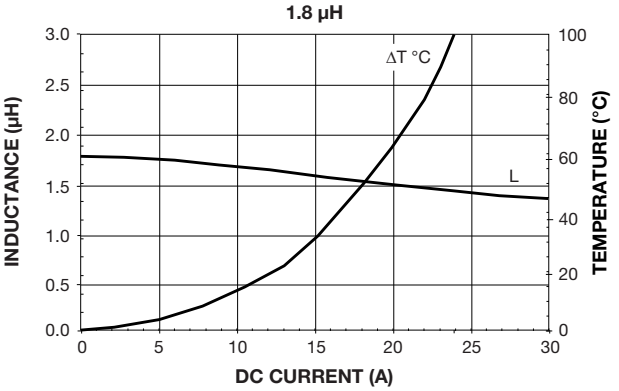
1.0 µH



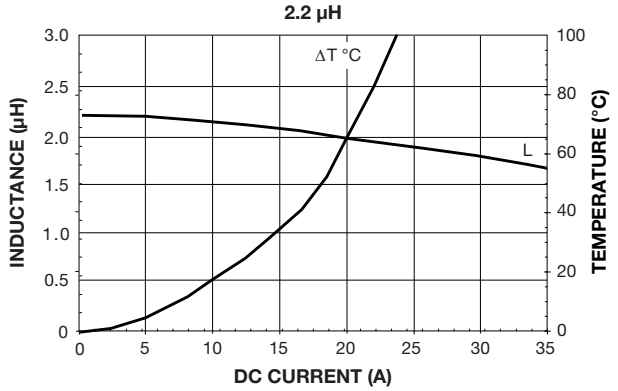
1.5 µH



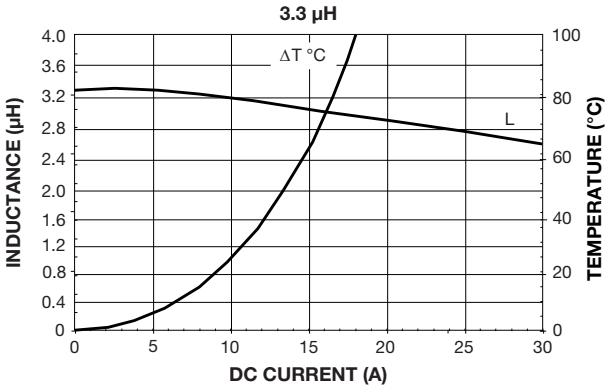
1.8 µH



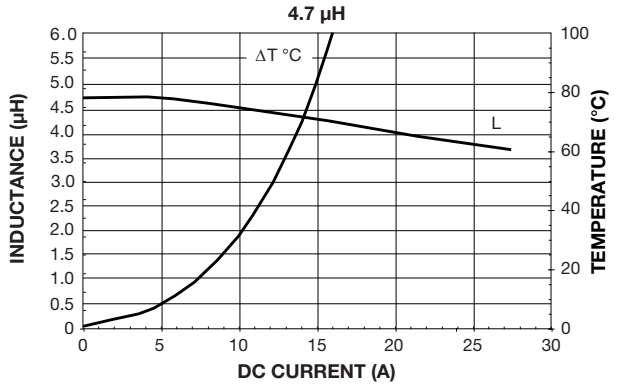
2.2 µH



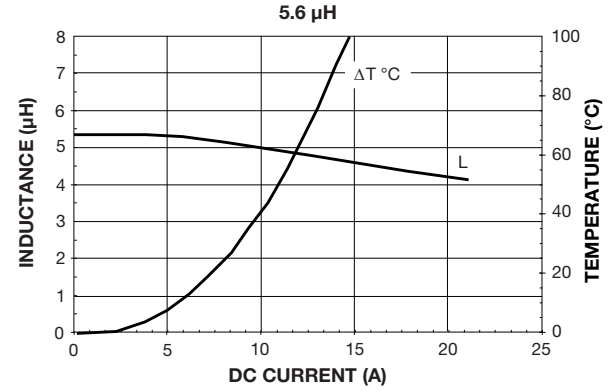
3.3 µH



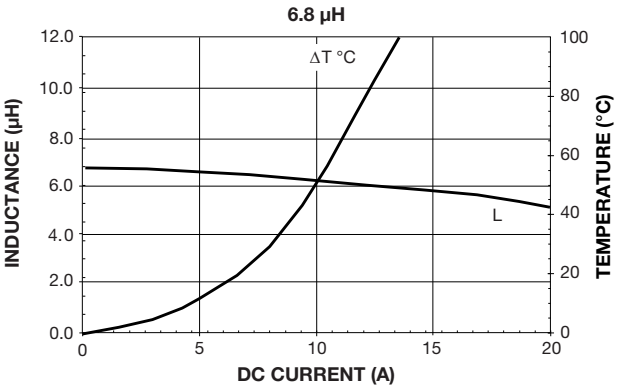
4.7 µH



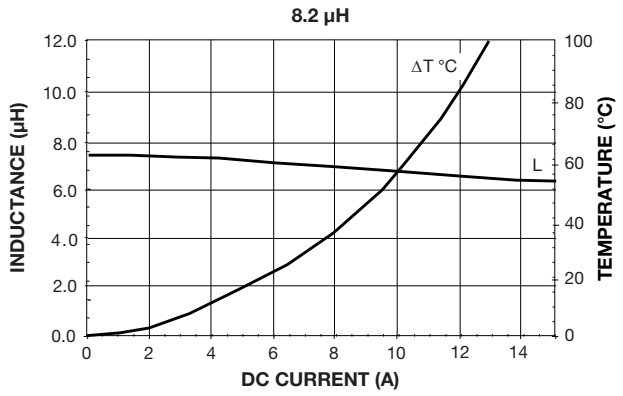
5.6 µH

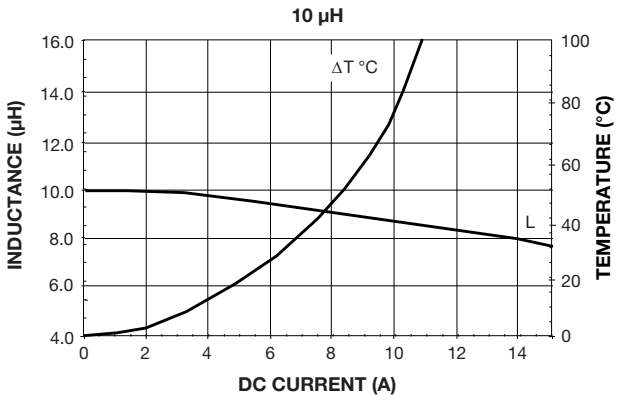


6.8 µH



PERFORMANCE GRAPHS





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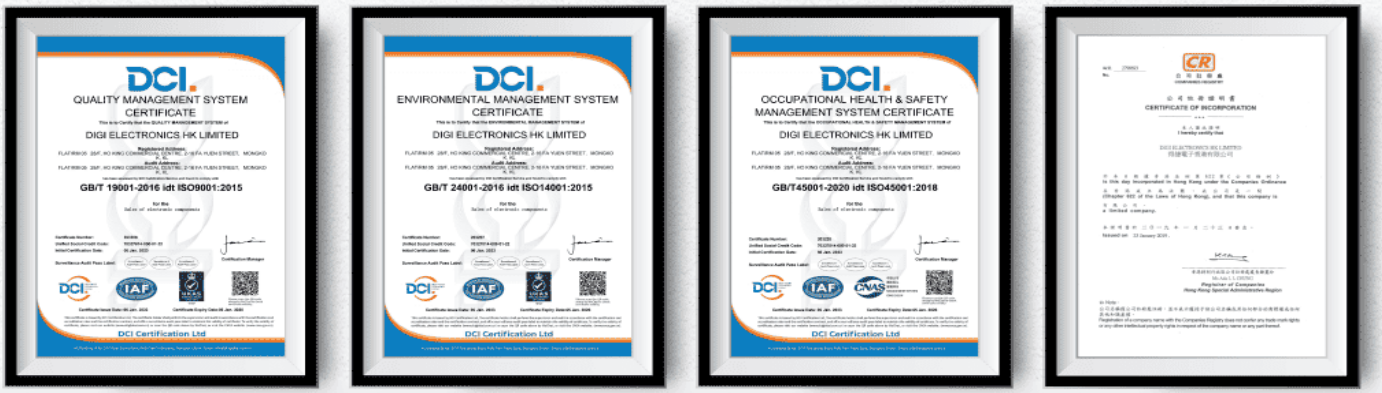

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