IHLP5050FDER4R7MA1 Datasheet

DiGi Electronics Part Number	IHLP5050FDER4R7MA1-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP5050FDER4R7MA1
Description	IHLP-5050FD-A1 4.7 20% ER E3
Detailed Description	4.7 µH Shielded Inductor 13.5 A 11.2mOhm Max Nonstandard

https://www.DiGi-Electronics.com

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
IHLP5050FDER4R7MA1	Vishay Dale
Series:	Product Status:
IHLP-5050FD-A1	Active
Type:	Material - Core:
-	Metal Composite
Inductance:	Tolerance:
4.7 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
13.5 A	30A
Shielding:	DC Resistance (DCR):
Shielded	11.2mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
AEC-Q200	-55°C ~ 125°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.525" L x 0.508" W (13.34mm x 12.90mm)
Height - Seated (Max):	
0.252" (6.40mm)	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.8000	

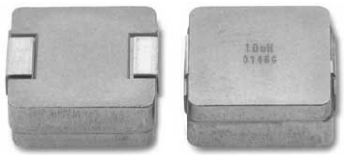
VISHAY

www.vishay.com

IHLP-5050EZ-A1

Vishay Dale

IHLP® Automotive Inductors, High Saturation Series



LINKS TO ADDITIONAL RESOURCES

3D Models Design Tools

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
- AEC-Q200 qualified
- IHLP design; PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

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

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	0.53	0.60	55.0	118.0
0.22	0.64	0.80	51.0	110.0
0.33	0.85	1.1	42.0	80.0
0.47	1.1	1.3	38.0	65.0
0.56	1.3	1.5	36.0	55.0
0.68	1.5	1.7	34.0	54.0
0.82	2.0	2.3	31.0	53.0
1.0	2.1	2.5	29.0	50.0
1.5	3.4	4.1	23.0	48.0
1.8	4.2	4.9	19.0	40.0
2.2	4.6	5.5	17.0	32.0
3.3	7.7	9.2	15.0	32.0
4.7	12.8	15.0	12.0	27.0
5.6	14.0	16.5	11.5	22.0
6.8	15.4	18.5	11.0	21.0
7.8	17.2	20.5	10.0	18.0
8.2	18.9	22.5	9.5	18.0
10	21.4	25.5	9.0	16.0
15	32.5	35	7.1	14.5

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 %

DESCRIPTION

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

GLOBAL PART NUMBER

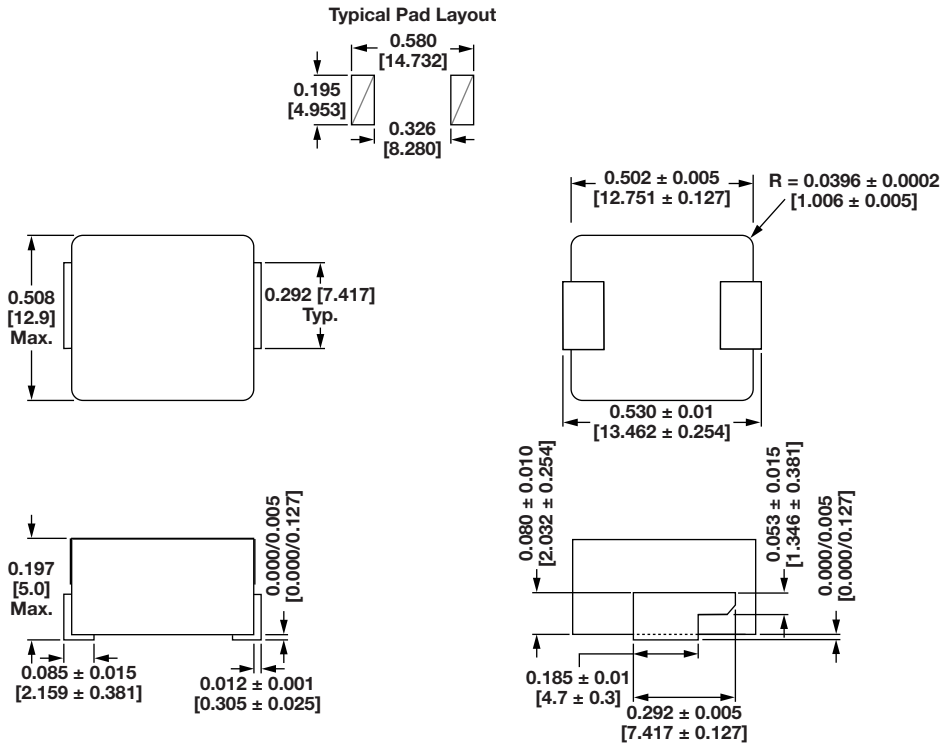
I	H	L	P	5	0	5	0	E	Z	E	R	1	R	0	M	A	1
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

PATENT(S): www.vishay.com/patents

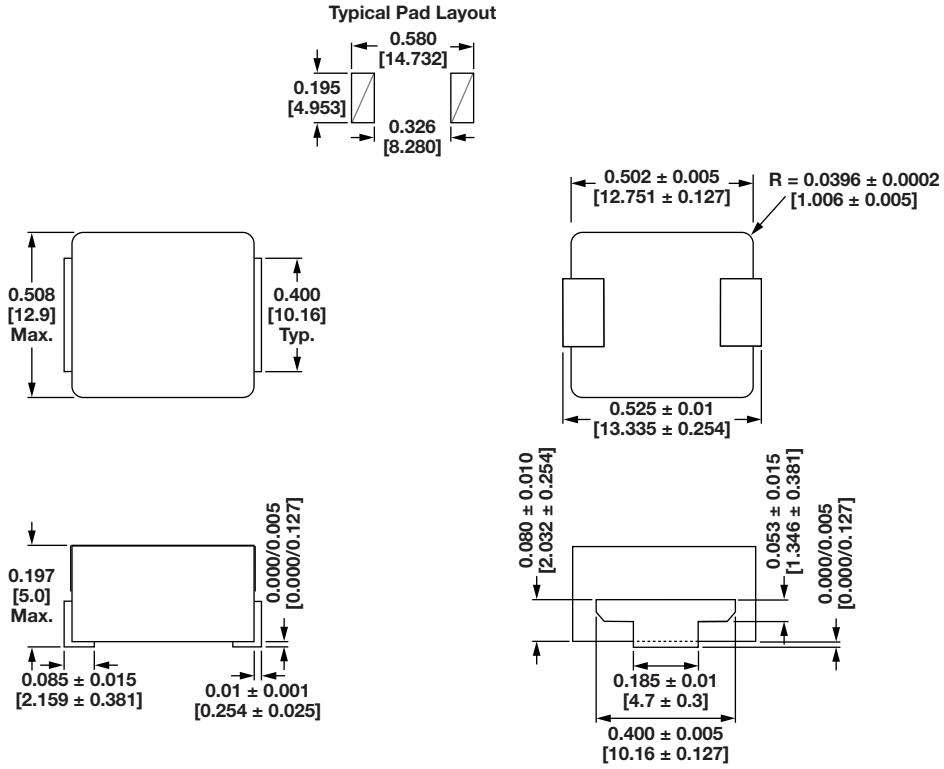
This Vishay product is protected by one or more United States and international patents.

DIMENSIONS in inches [millimeters]

Values 1.8 µH and lower

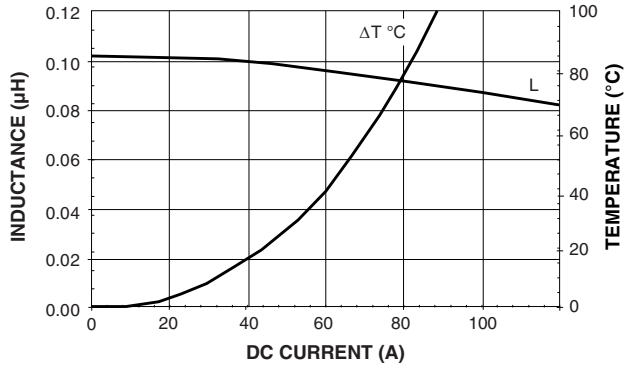


Values 2.2 µH and higher

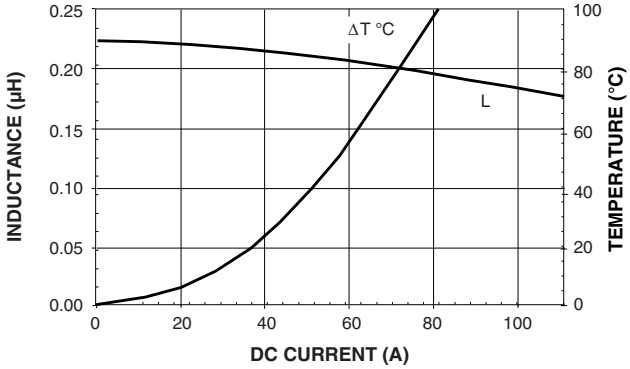


PERFORMANCE GRAPHS

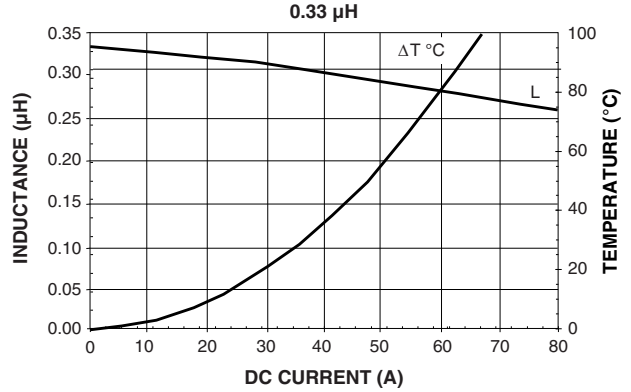
0.10 µH



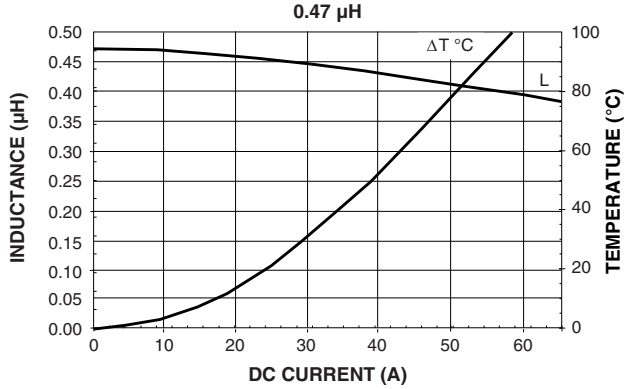
0.22 µH



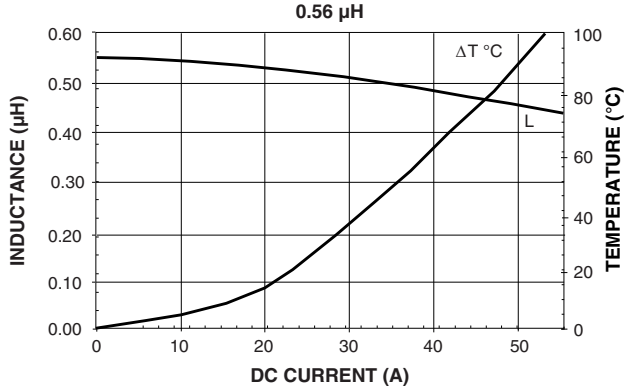
0.33 µH



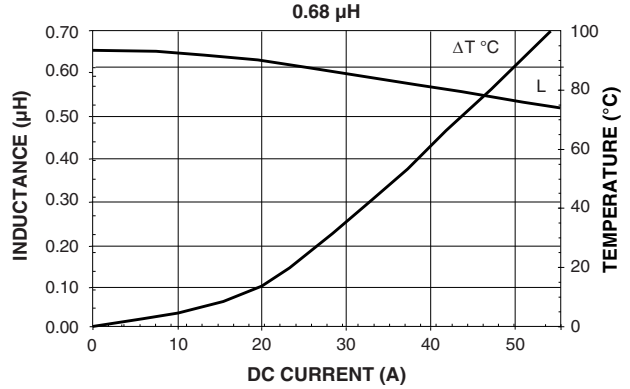
0.47 µH



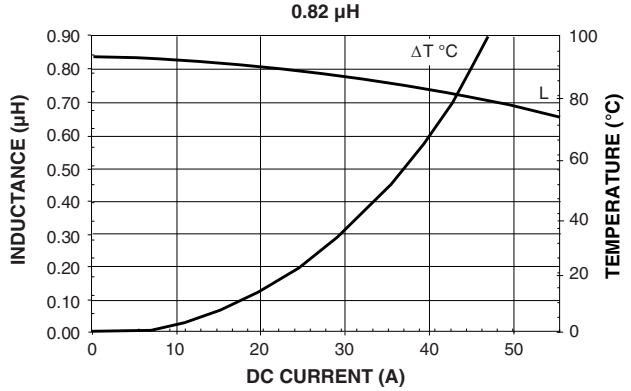
0.56 µH



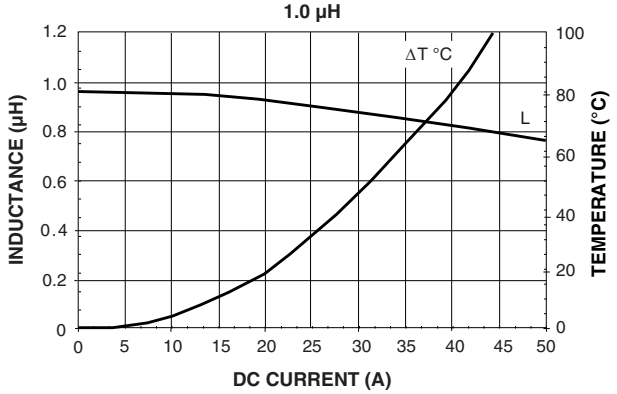
0.68 µH



0.82 µH

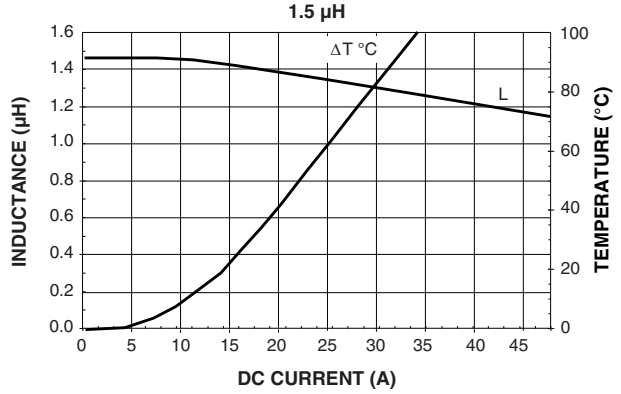


1.0 µH

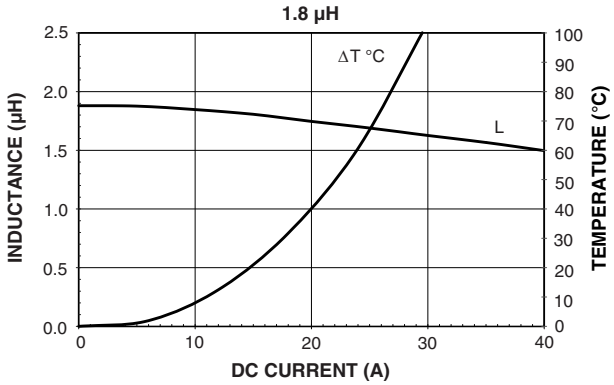


PERFORMANCE GRAPHS

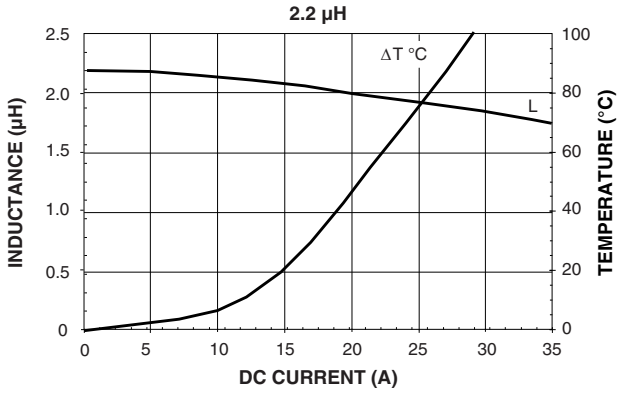
1.5 µH



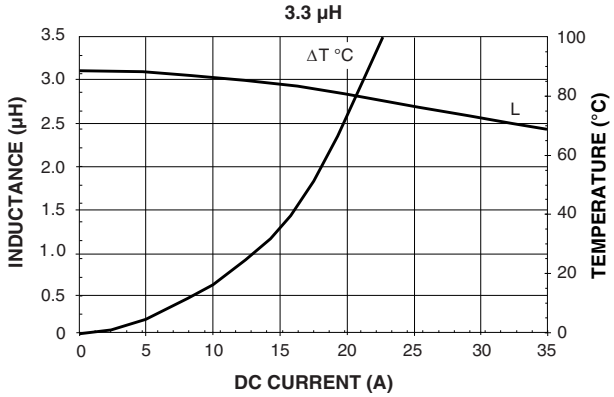
1.8 µH



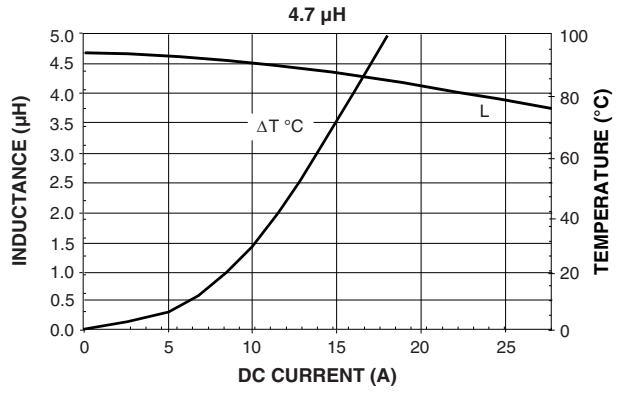
2.2 µH



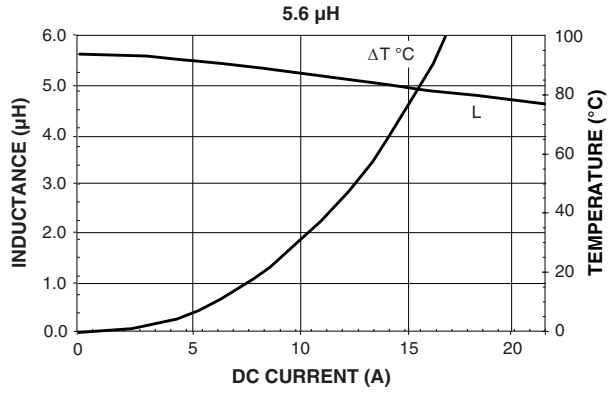
3.3 µH



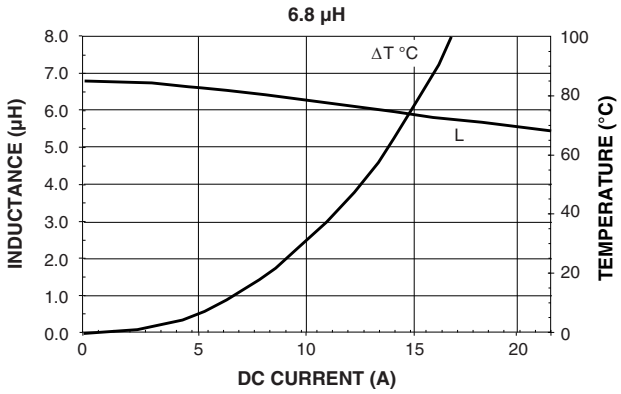
4.7 µH



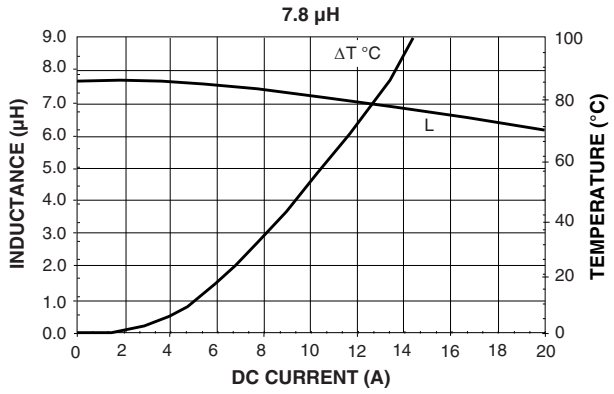
5.6 µH



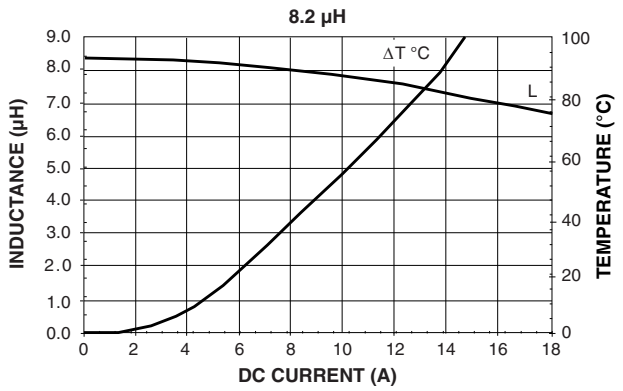
6.8 µH

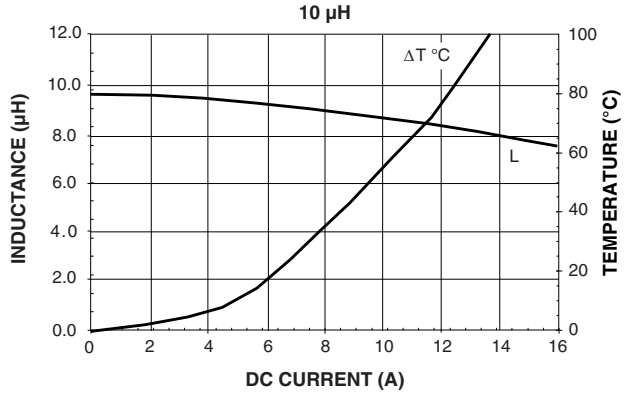


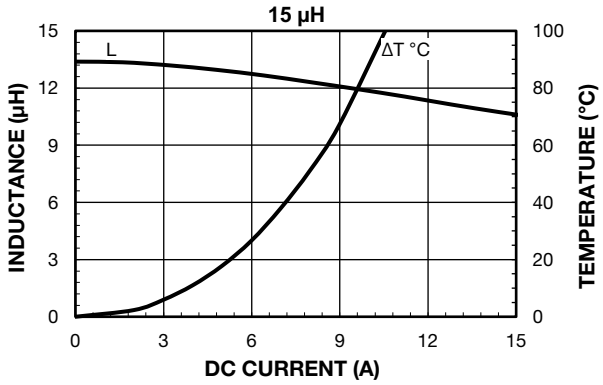
7.8 µH



PERFORMANCE GRAPHS







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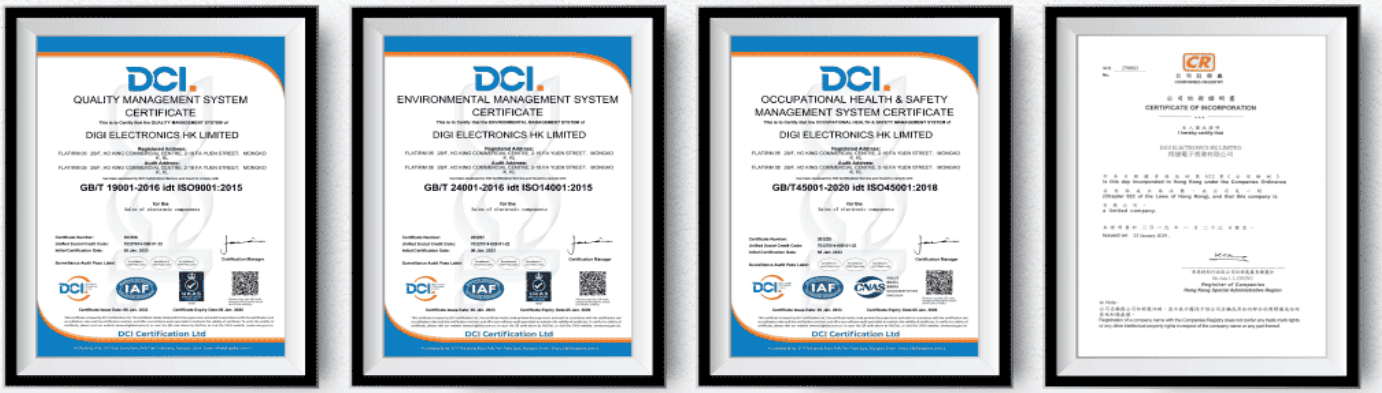

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