IHLP5050EZER470M5A Datasheet

DiGi Electronics Part Number	IHLP5050EZER470M5A-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP5050EZER470M5A
Description	FIXED IND 47UH 3.9A 112 MOHM SMD
Detailed Description	47 µH Shielded Molded Inductor 3.9 A 112mOhm Max Nonstandard

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
IHLP5050EZER470M5A	Vishay Dale
Series:	Product Status:
IHLP-5050EZ-5A	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
47 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
3.9 A	4.8A
Shielding:	DC Resistance (DCR):
Shielded	112mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	4.2MHz
Ratings:	Operating Temperature:
AEC-Q200	-55°C ~ 155°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.530" L x 0.508" W (13.46mm x 12.90mm)
Height - Seated (Max):	
0.197" (5.00mm)	

Environmental & Export classification

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

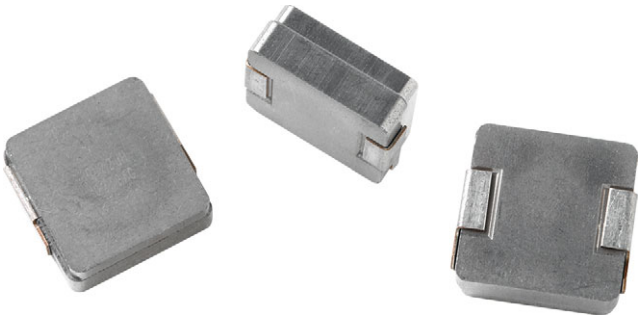
VISHAY

www.vishay.com

IHLP-5050EZ-5A

Vishay Dale

IHLP® Automotive Inductors, High Temperature (155 °C) Series



FEATURES

- High temperature, up to 155 °C
- 13.46 mm x 12.9 mm x 5.0 mm size
- Magnetically shielded
- Ultra low buzz noise due to composite iron alloy construction
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page | 3D Models | Design Tools

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 blower / HID lighting
- LED drivers

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	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)	SRF TYP. (MHz)
IHLP5050EZERR22M5A	0.22	0.69	0.76	68.18	69.24	99.9
IHLP5050EZERR33M5A	0.33	0.93	1.02	62.38	45.24	77.5
IHLP5050EZERR47M5A	0.47	1.15	1.23	49.88	33.08	59.6
IHLP5050EZERR68M5A	0.68	1.33	1.41	49.63	30.00	50.5
IHLP5050EZER1R0M5A	1.0	2.00	2.14	36.64	28.00	37.2
IHLP5050EZER1R5M5A	1.5	2.75	2.94	31.27	28.00	30.6
IHLP5050EZER1R8M5A	1.8	3.35	3.58	28.62	26.40	26.4
IHLP5050EZER2R2M5A	2.2	3.50	3.75	22.00	26.10	22.7
IHLP5050EZER3R0M5A	3.0	5.90	6.31	17.90	18.50	20.4
IHLP5050EZER3R3M5A	3.3	7.20	7.70	16.00	18.00	17.8
IHLP5050EZER4R7M5A	4.7	9.40	10.1	15.30	17.80	15.1
IHLP5050EZER5R6M5A	5.6	12.3	13.2	13.96	16.90	14.7
IHLP5050EZER6R8M5A	6.8	15.0	16.1	10.60	12.50	14.4
IHLP5050EZER8R2M5A	8.2	15.5	16.6	12.85	9.83	11.4
IHLP5050EZER100M5A	10	18.8	20.1	9.34	7.50	11.0
IHLP5050EZER150M5A	15	27.8	29.7	7.70	7.50	9.6
IHLP5050EZER220M5A	22	41.9	44.8	6.90	6.30	7.4
IHLP5050EZER470M5A	47	105	112	3.90	4.80	4.2
IHLP5050EZER820M5A	82	188	201	3.00	3.10	2.9

Notes

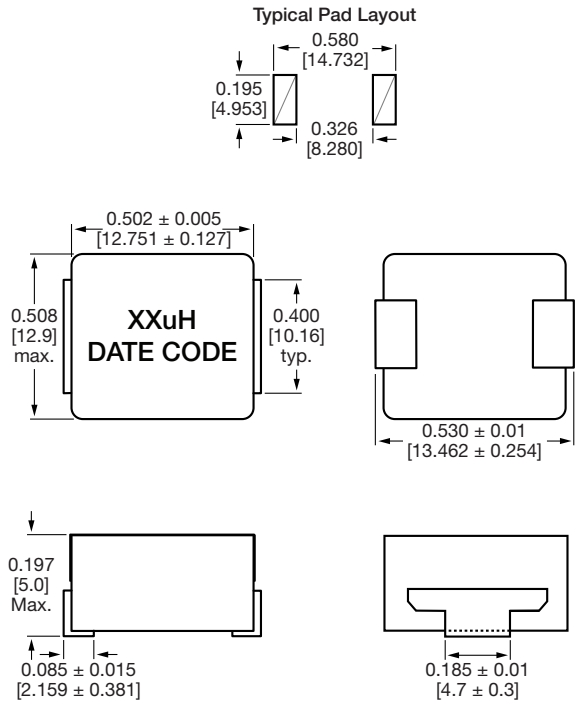
- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temperature rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling 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 %

For technical questions, contact: magnetics@vishay.com

DIMENSIONS in inches [millimeters]



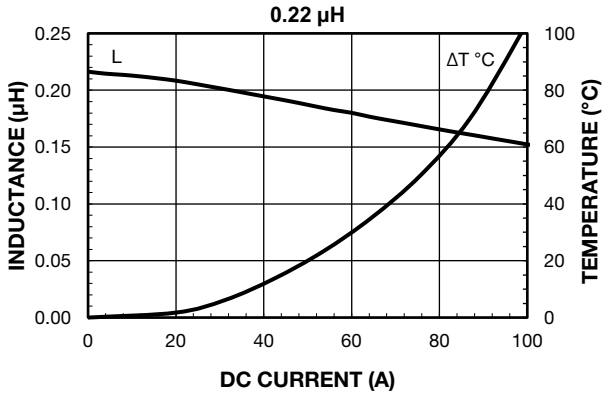
DESCRIPTION

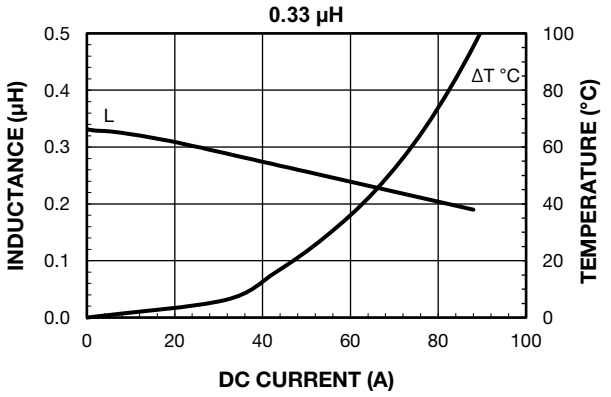
IHLP-5050EZ-5A	4.7 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

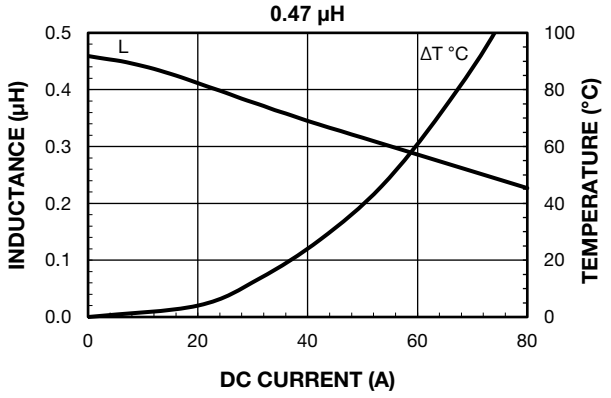
GLOBAL PART NUMBER

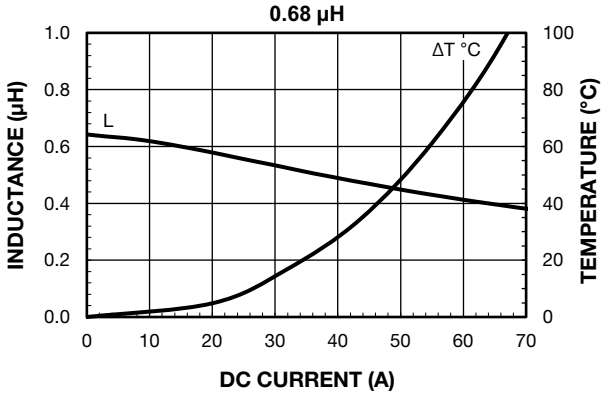
I H L P	5 0 5 0 E Z	E R	4 R 7	M	5 A
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		ER = tape and reel	**2R2** = 2.2 µH	**M** = ± 20 % **N** = ± 30 %	

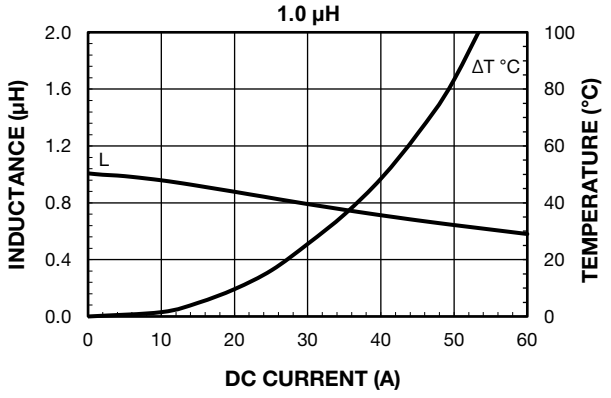
PERFORMANCE GRAPHS

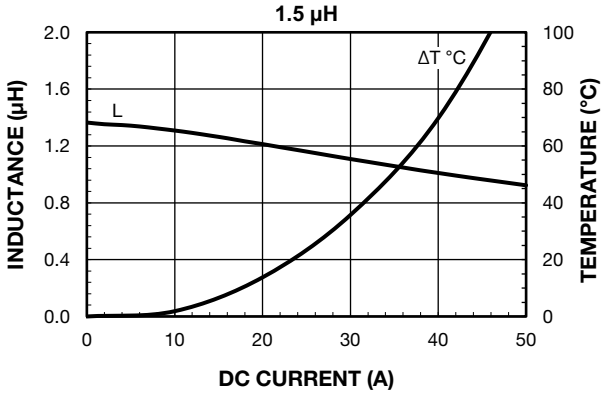


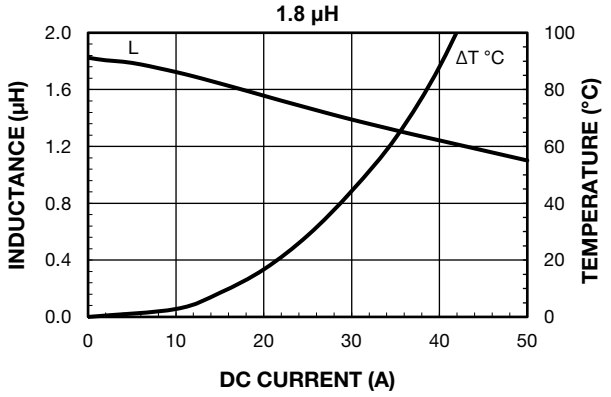


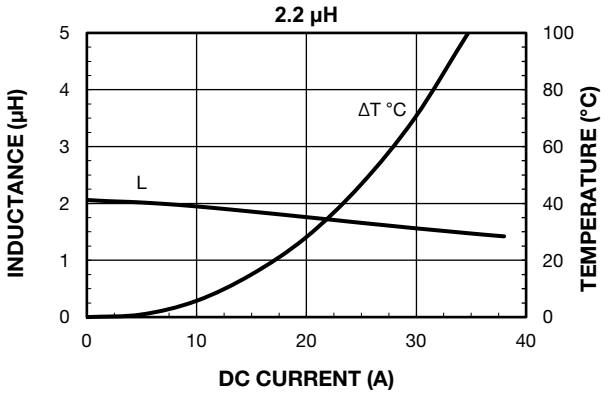












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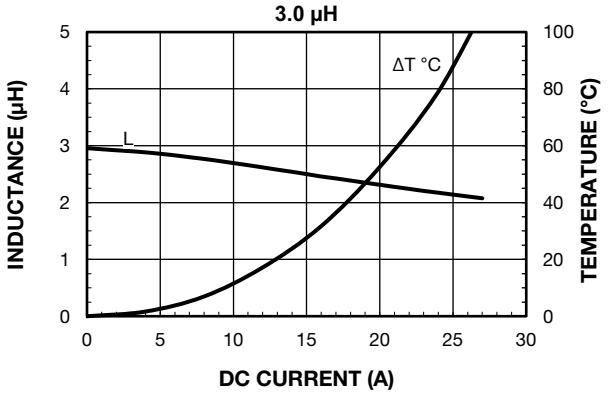

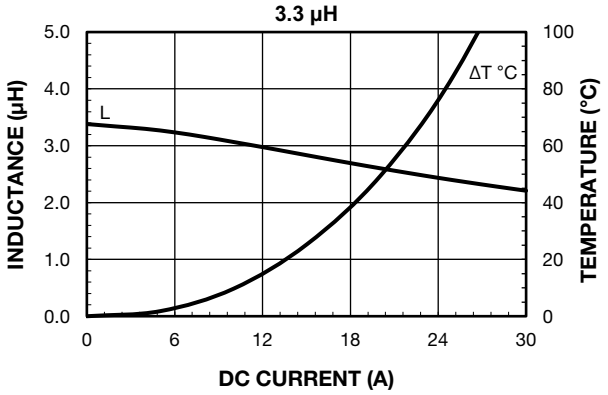

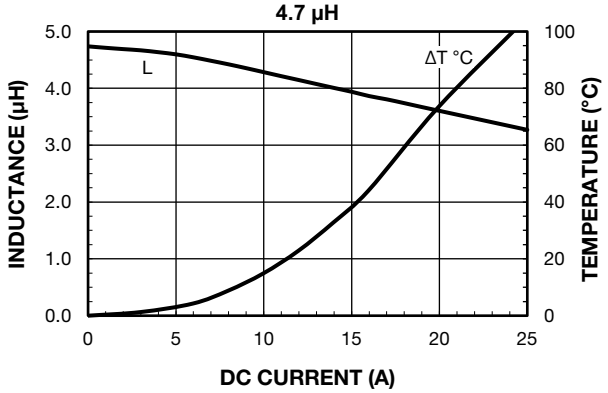

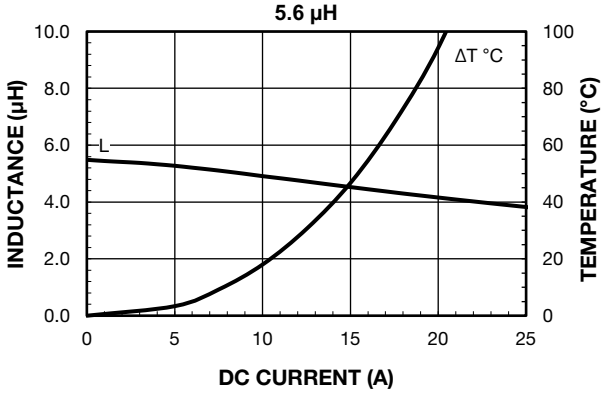

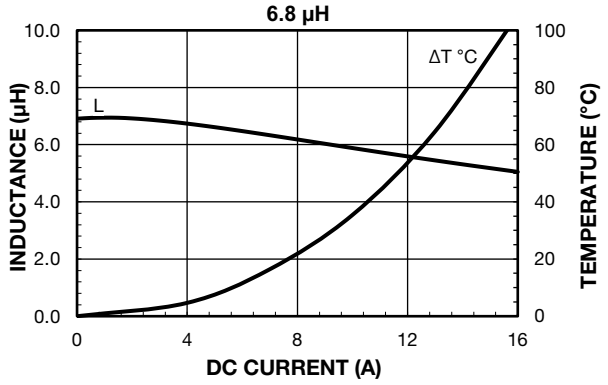

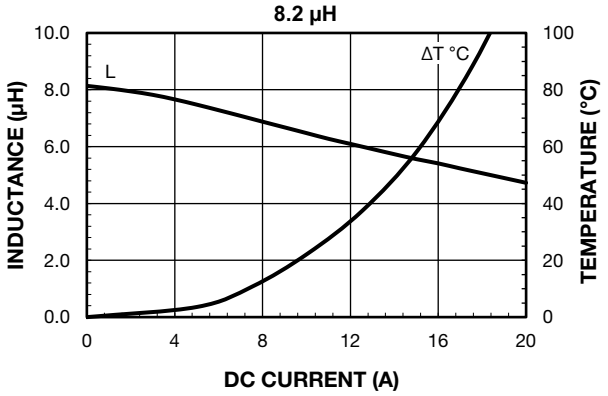

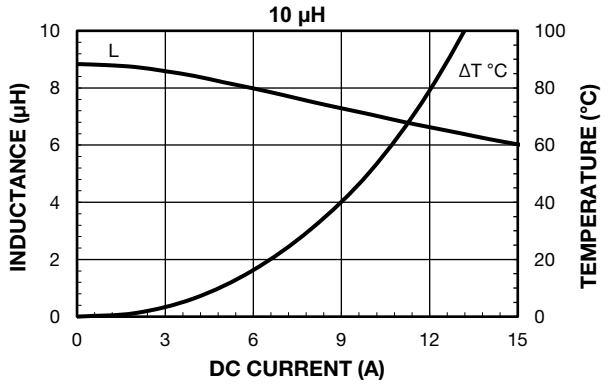

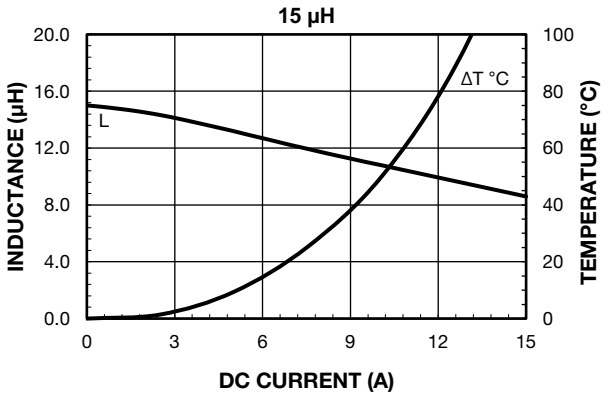

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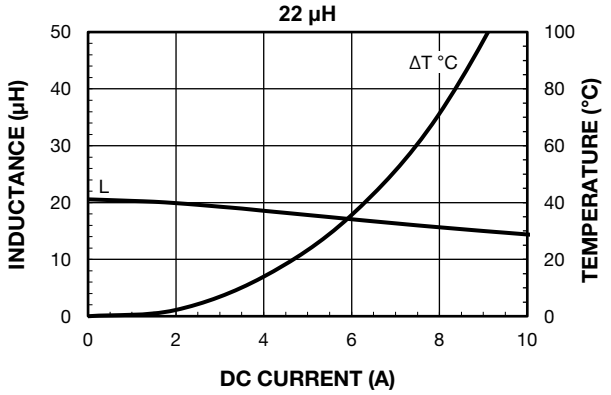
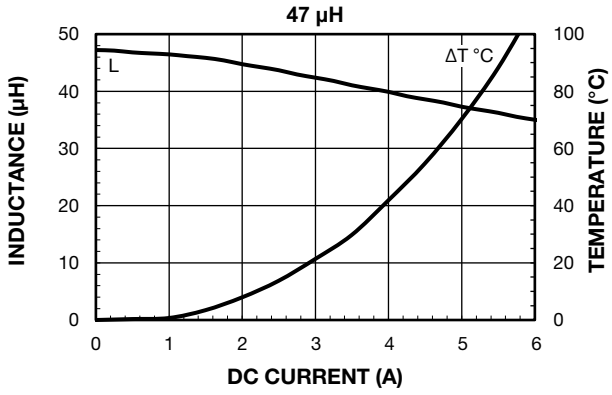
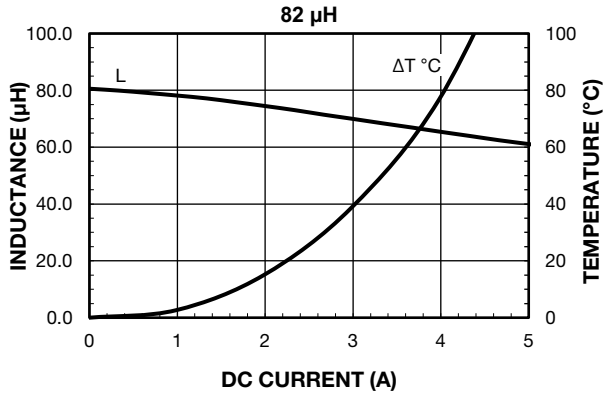
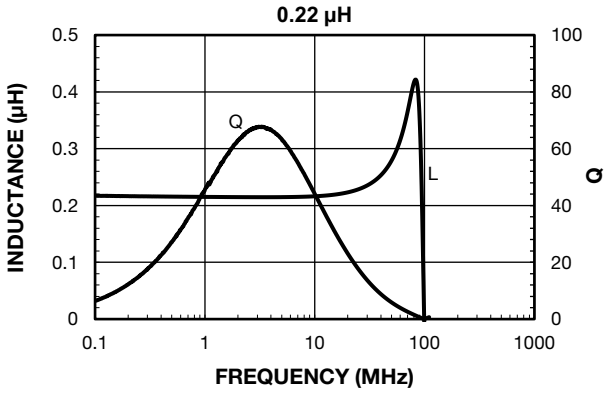
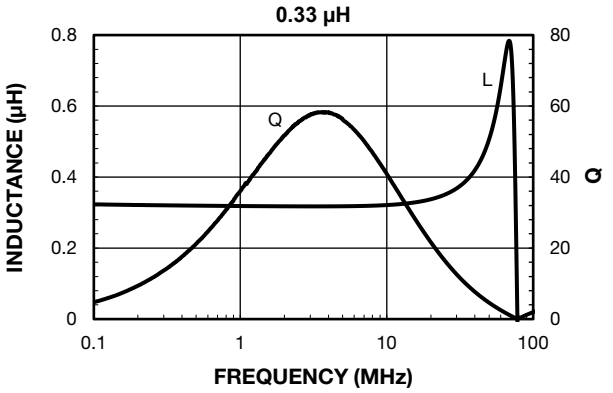


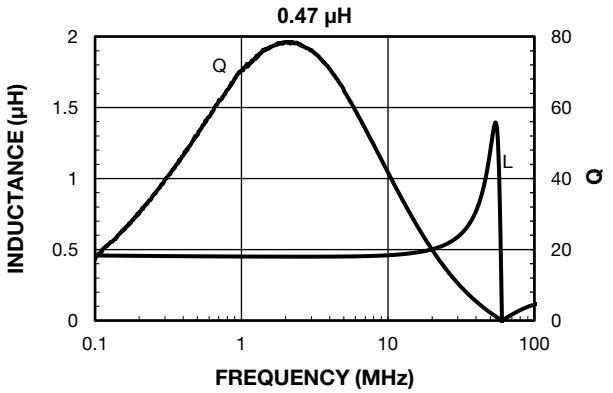


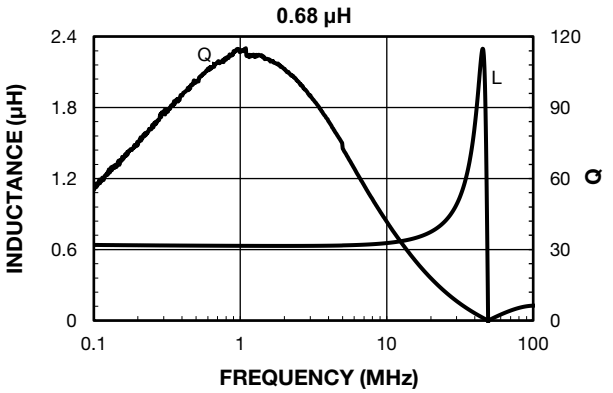


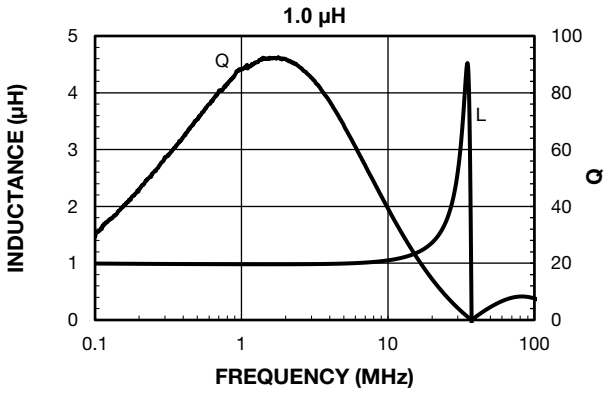
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

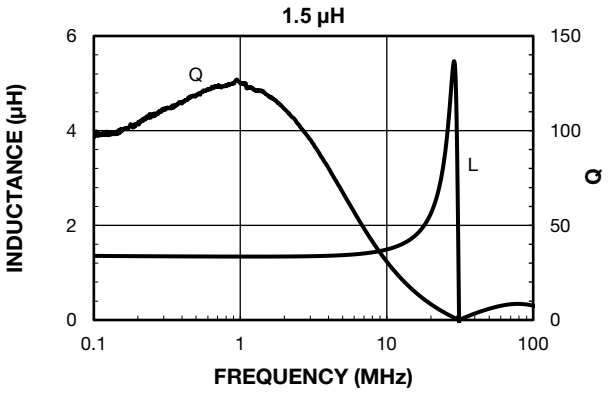


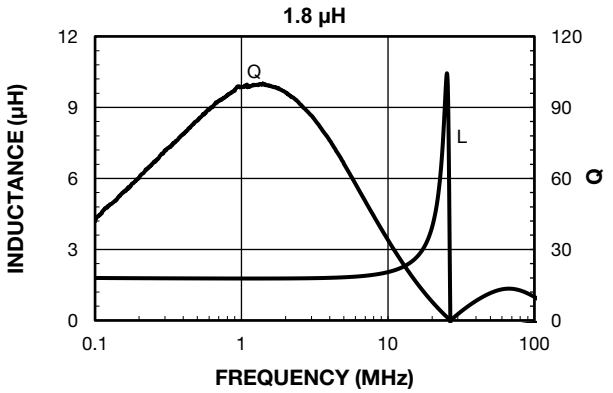


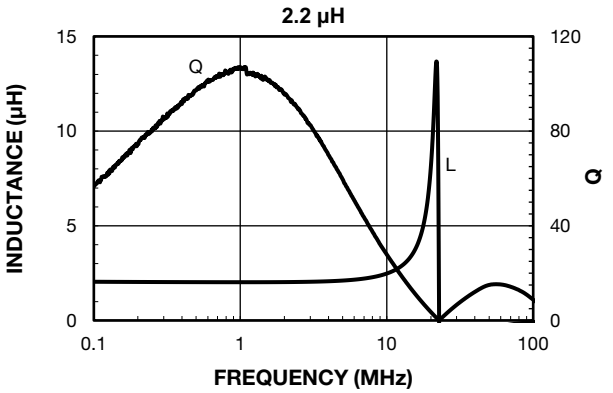












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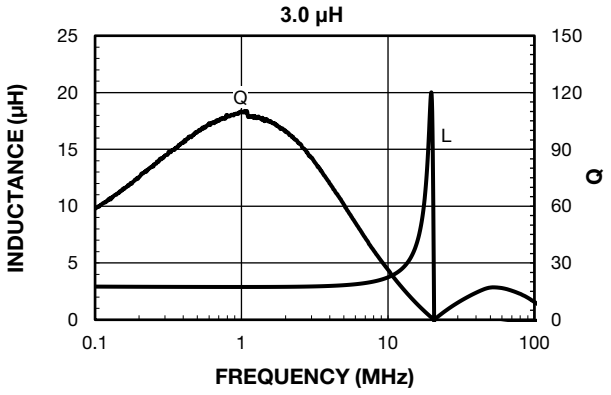

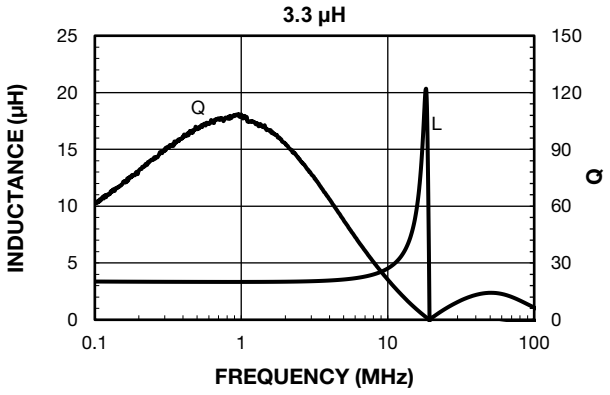

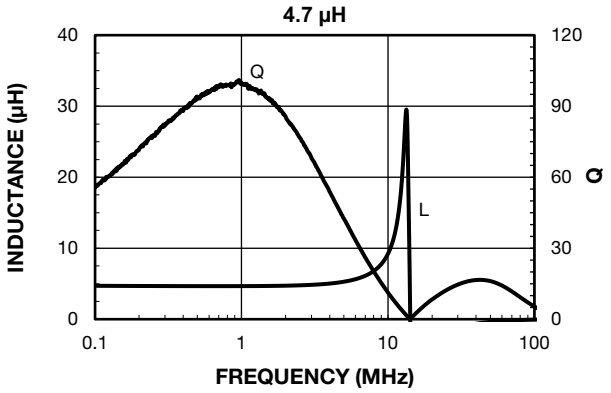

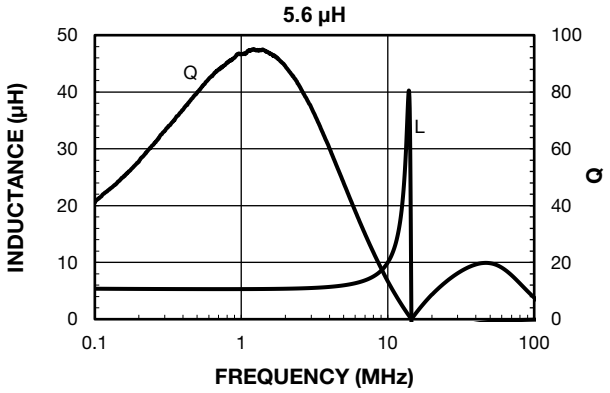

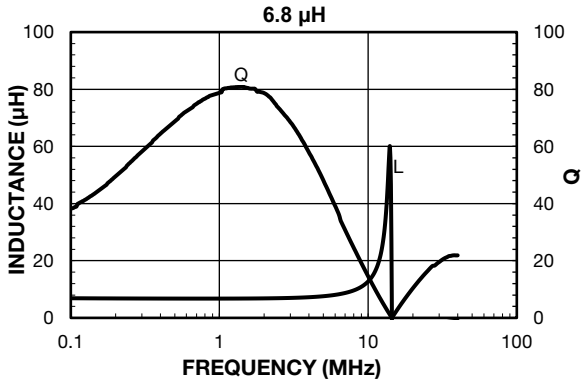

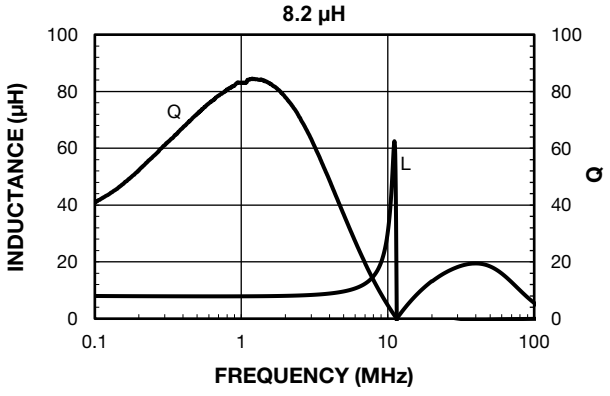

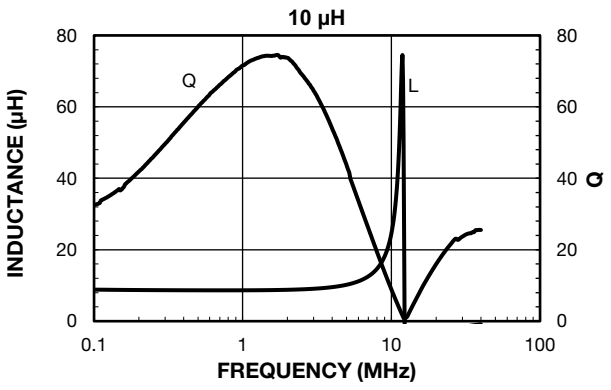

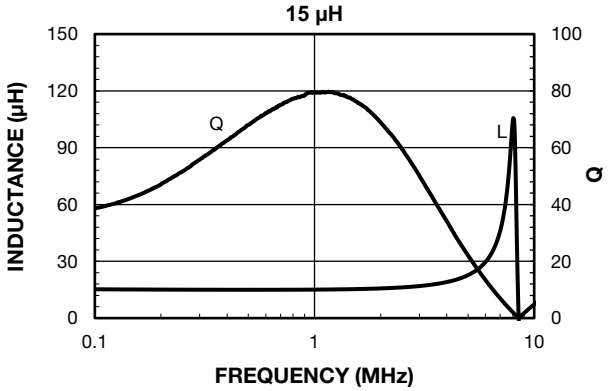

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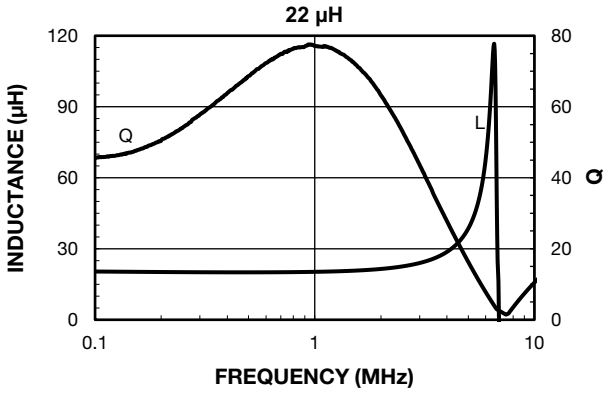

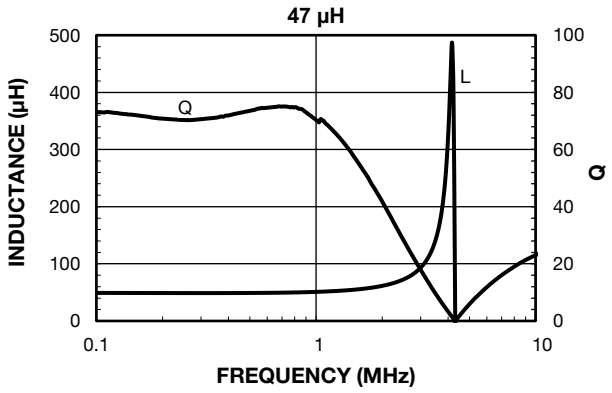

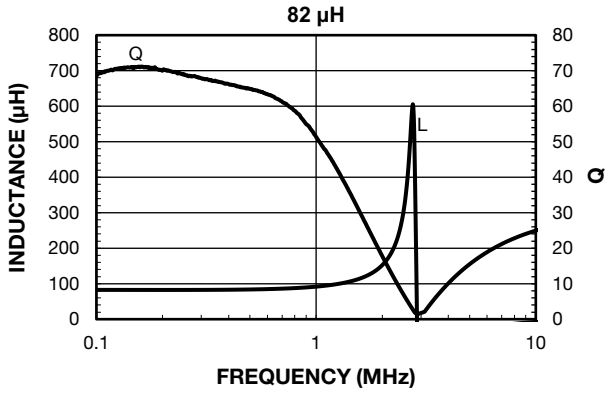

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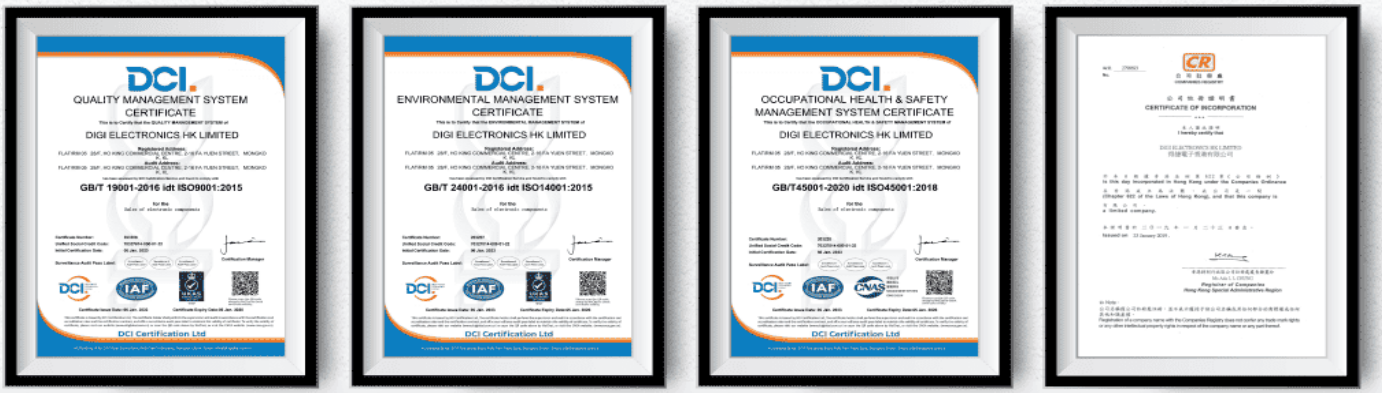

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