

IHLP4040DZERR68M5A Datasheet

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DiGi Electronics Part Number	IHLP4040DZERR68M5A-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP4040DZERR68M5A
Description	FIXED IND 680NH SMD
Detailed Description	680 nH Shielded Molded Inductor Nonstandard



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DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

IHLP4040DZERR68M5A

Series:

IHLP-4040DZ-5A

Type:

Molded

Inductance:

680 nH

Current - Saturation (Isat):

-

DC Resistance (DCR):

-

Frequency - Self Resonant:

-

Operating Temperature:

-55°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

4040

Height - Seated (Max):

0.157" (4.00mm)

Manufacturer:

Vishay Dale

Product Status:

Active

Material - Core:

-

Tolerance:

±20%

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Package / Case:

Nonstandard

Size / Dimension:

0.425" L x 0.400" W (10.80mm x 10.16mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



www.vishay.com

IHLP-4040DZ-5A

Vishay Dale

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



RoHS
 COMPLIANT
 HALOGEN
FREE
GREEN
 (5-2008)

FEATURES

- High temperature, up to 155 °C
- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up the SRF (see Standard Electrical Specifications table)
- 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

LINKS TO ADDITIONAL RESOURCES



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⁾	SRF TYP. (MHz)
0.47	1.55	1.66	30.0	28.5	72.1
1.0	2.87	3.07	23.5	24.0	37.2
1.5	4.2	4.5	22.0	17.9	32
2.2	8.15	8.76	15	12	30.1
3.3	11.0	11.81	11.0	12.0	25.5
4.7	14.3	15.32	9.8	9.2	20.1
5.6	16.5	17.60	9.3	9.0	16.3
6.8	20.9	22.36	8.0	9.0	16.3
10	30.9	33.06	6.5	8.5	11.5
15	47.0	50.29	5.1	7.7	10.4
22	70.5	75.44	4.1	6.4	8.30
33	110	117.70	3.7	4.2	5.79
47	167	178	3.1	4.1	5.22
68	240	252	2.4	3.5	4.02

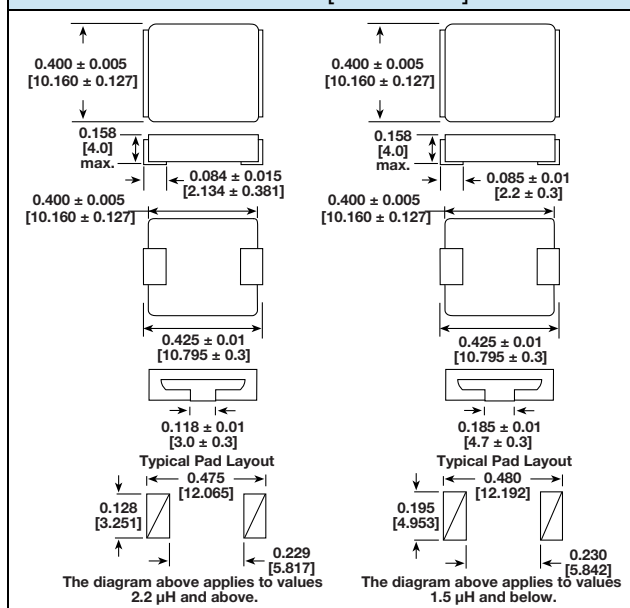
Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. 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 L₀ to drop approximately 20 %

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

DIMENSIONS in inches [millimeters]



DESCRIPTION					
IHLP-4040DZ-5A	4.7 μH	± 20 %	ER	e3	
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD	

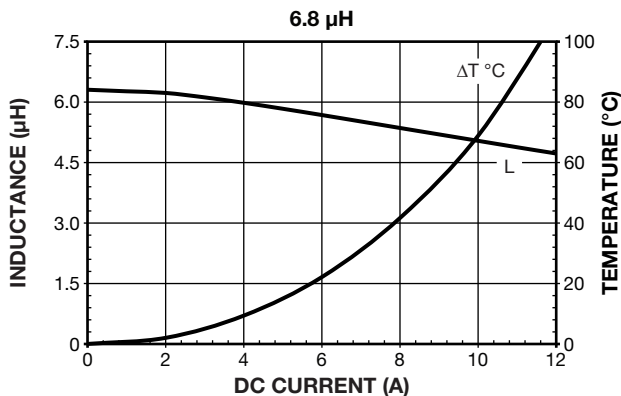
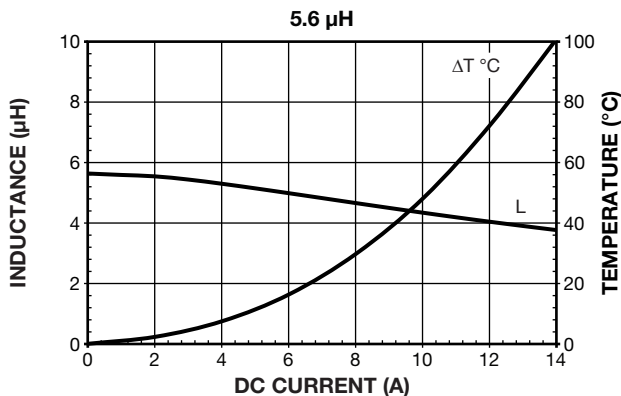
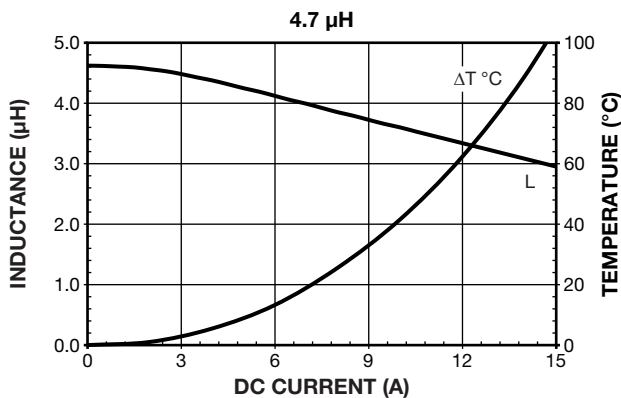
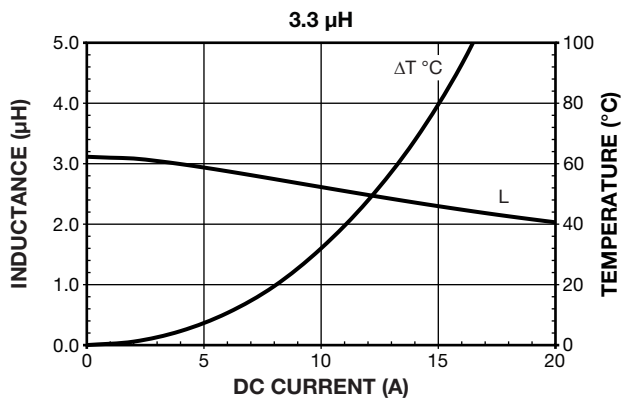
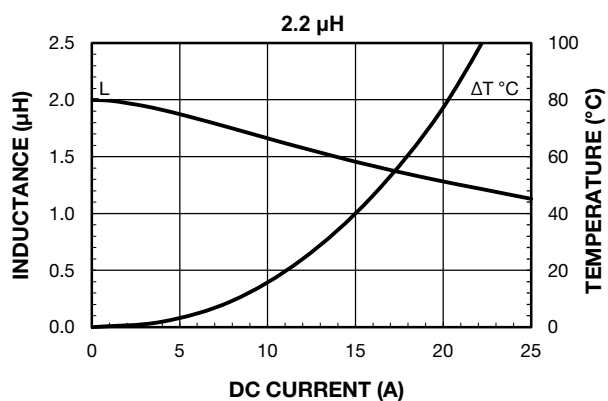
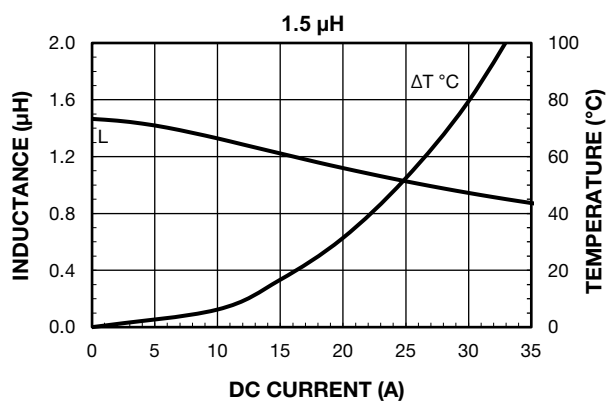
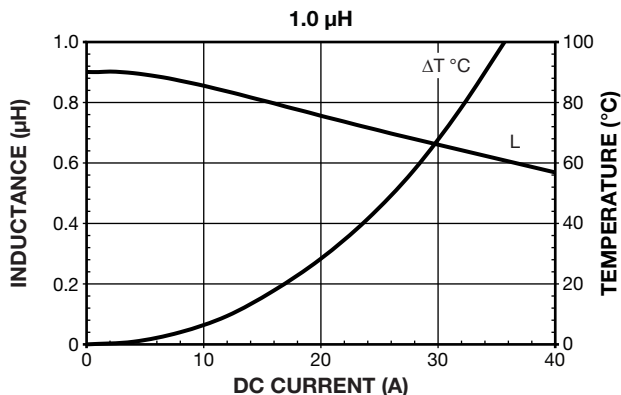
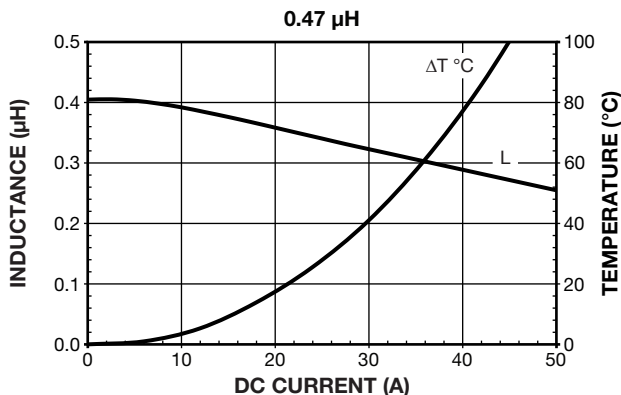
GLOBAL PART NUMBER																	
I	H	L	P	4	0	4	0	D	Z	E	R	4	R	7	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.		SERIES		

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

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

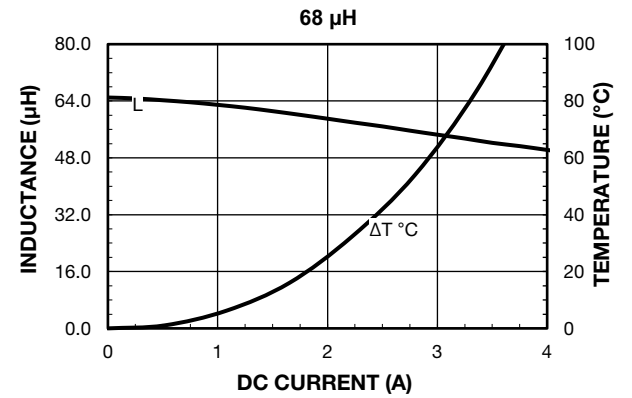
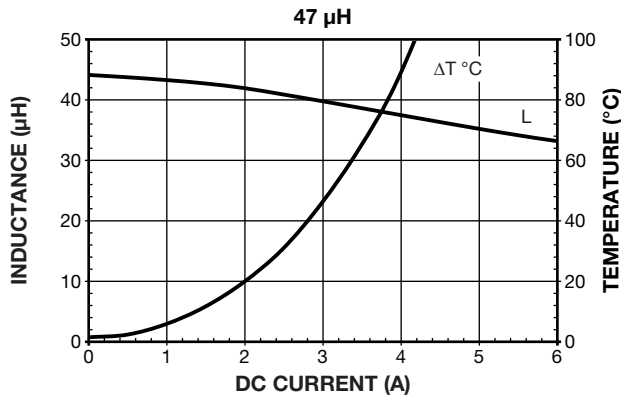
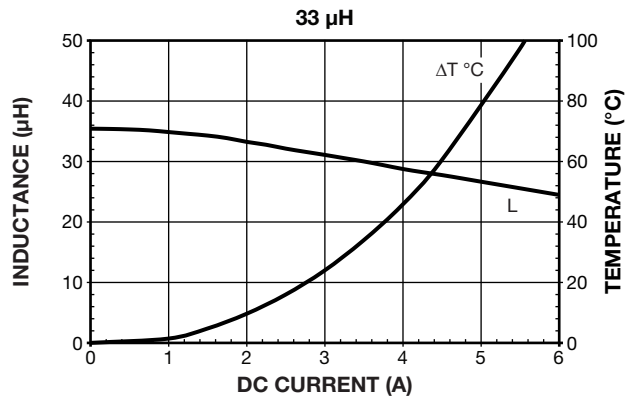
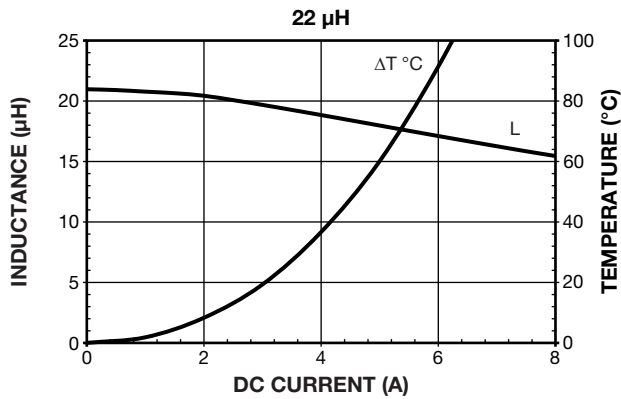
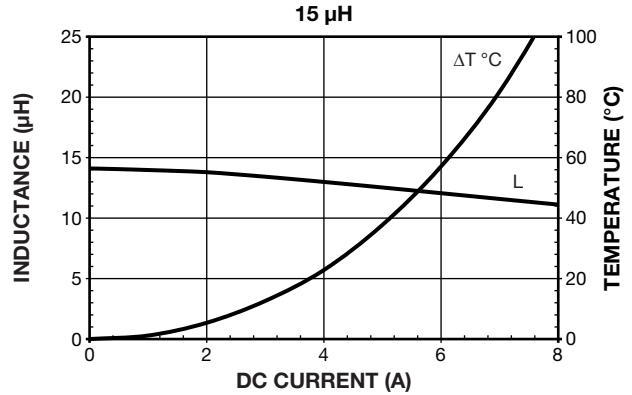
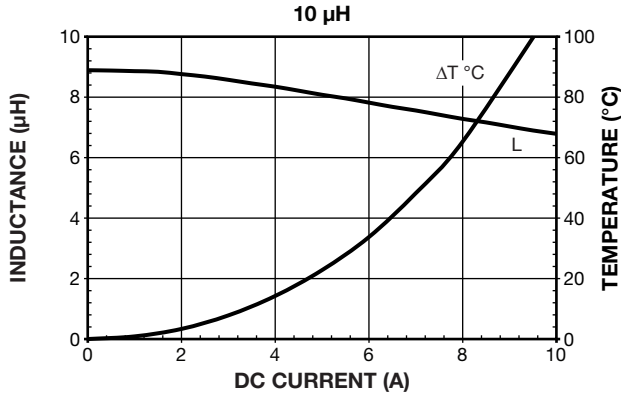


PERFORMANCE GRAPHS



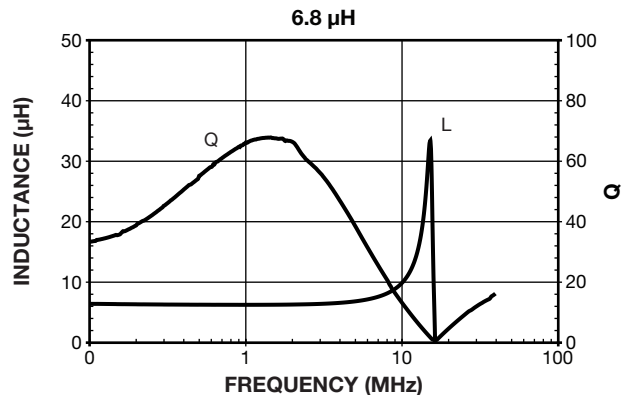
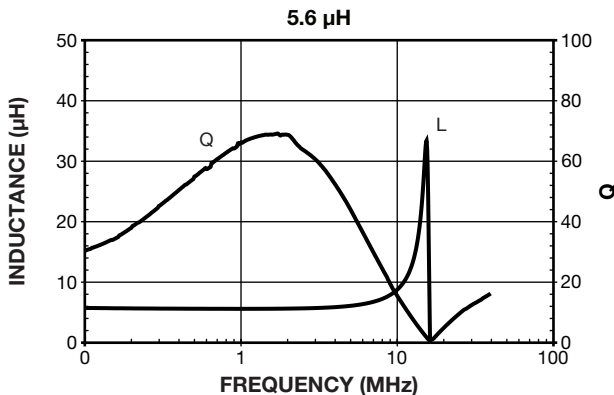
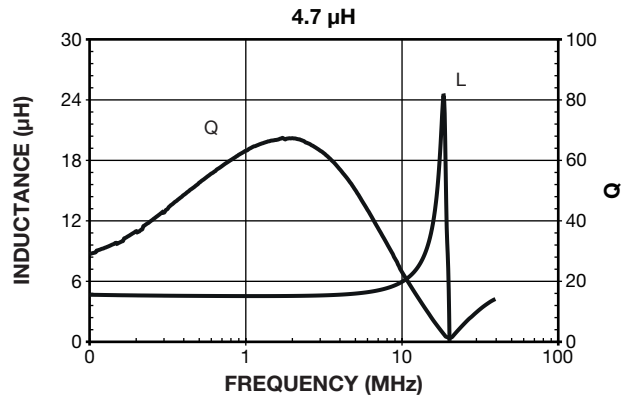
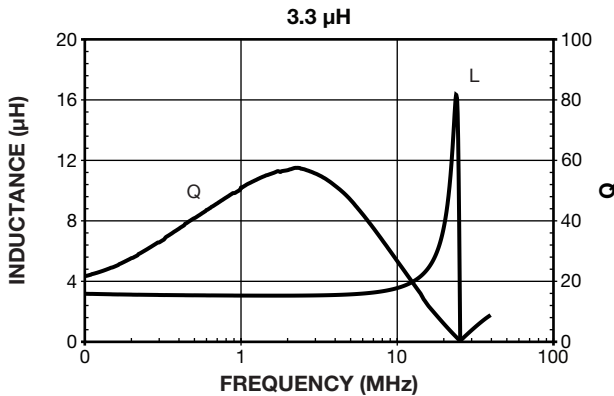
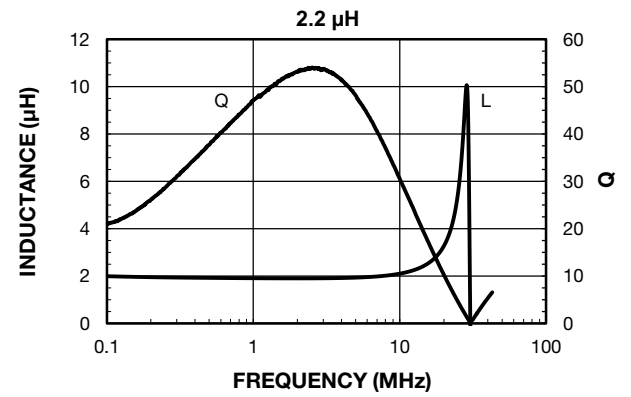
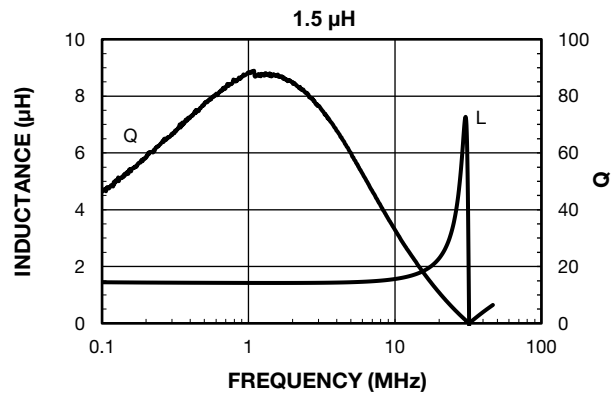
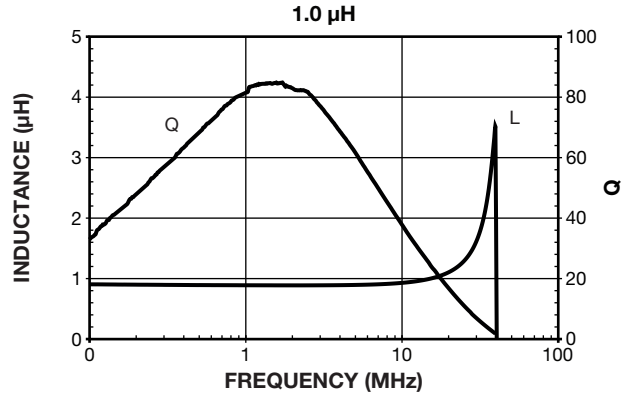
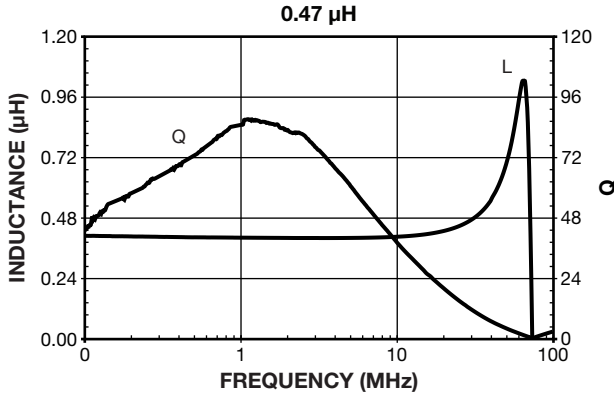


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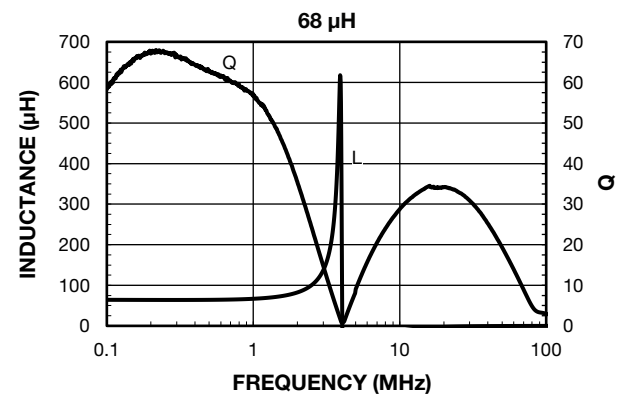
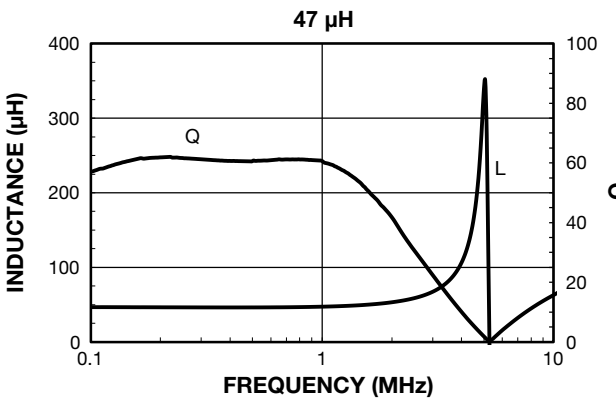
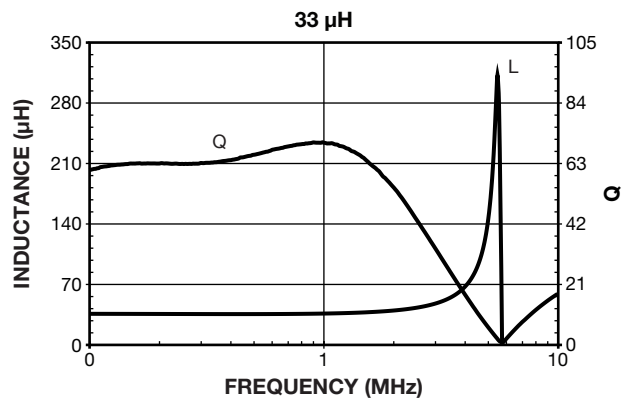
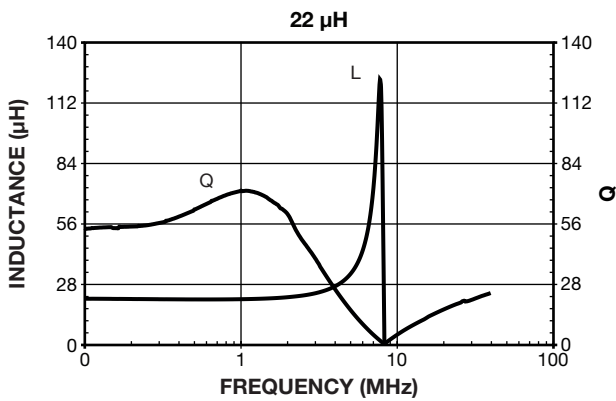
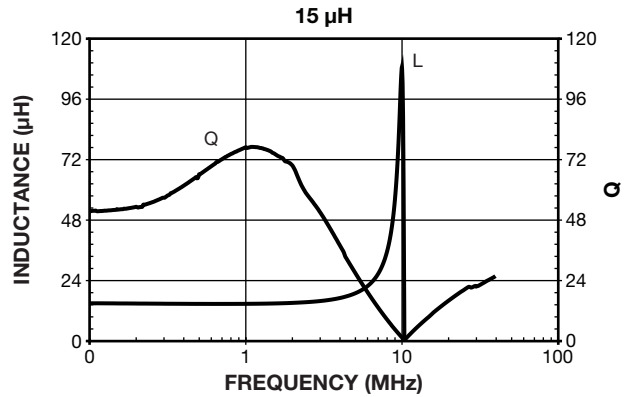
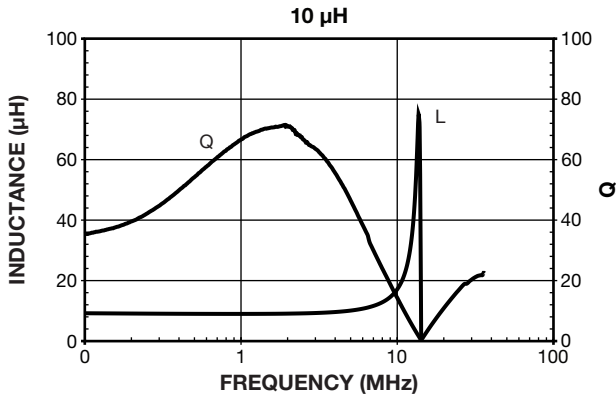


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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