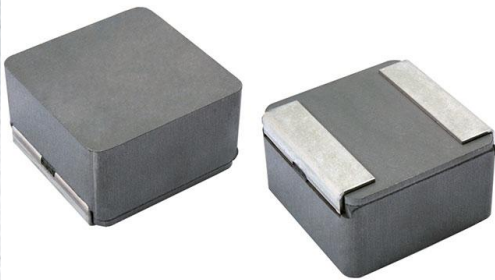


IHLP8787MZER470M5A Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	IHLP8787MZER470M5A-DG
Manufacturer	Vishay Dale
Manufacturer Product Number	IHLP8787MZER470M5A
Description	IHLP-8787MZ-5A 47 20% ER E3
Detailed Description	47 μ H Shielded Inductor 13.5 A 17.7mOhm Max No nstandard



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

IHLP8787MZER470M5A

Series:

IHLP-8787MZ-5A

Type:

-

Inductance:

47 μ H

Current Rating (Amps):

13.5 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.512" (13.00mm)

Manufacturer:

Vishay Dale

Product Status:

Active

Material - Core:

Metal Composite

Tolerance:

\pm 20%

Current - Saturation (Isat):

10A

DC Resistance (DCR):

17.7mOhm Max

Frequency - Self Resonant:

2.99MHz

Operating Temperature:

-55°C ~ 155°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.885" L x 0.866" W (22.48mm x 22.00mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



www.vishay.com

IHLP-8787MZ-5A

Vishay Dale

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



AUTOMOTIVE GRADE



RoHS
 COMPLIANT
 HALOGEN
FREE
GREEN
 (5-2008)

FEATURES

- High temperature rating, 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	0.56	0.67	80.0	100.0	47.5
1.0	0.82	0.89	69.0	71.0	25.7
2.2	1.15	1.25	58.0	48.0	17.5
3.3	1.63	1.77	49.0	41.0	12.8
4.7	1.69	1.84	47.0	37.0	10.2
6.8	2.84	3.09	36.0	36.0	8.03
10	4.04	4.14	28.0	28.0	6.04
15	5.62	6.11	23.5	24.0	4.71
22	10.60	10.80	17.5	16.0	3.88
33	15.10	15.40	15.5	10.5	3.01
47	17.30	17.70	13.5	10.0	2.99
75	29.76	32.35	10.6	9.5	2.01
82	31.46	34.20	10.2	9.0	2.07
100	36.25	39.40	9.1	7.0	2.01

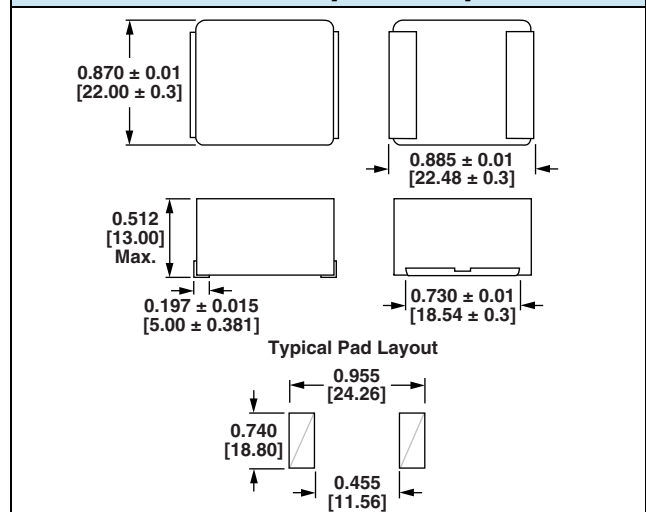
Notes

- 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-8787MZ-5A	100 μH	± 20 %	ER	e3	
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD	

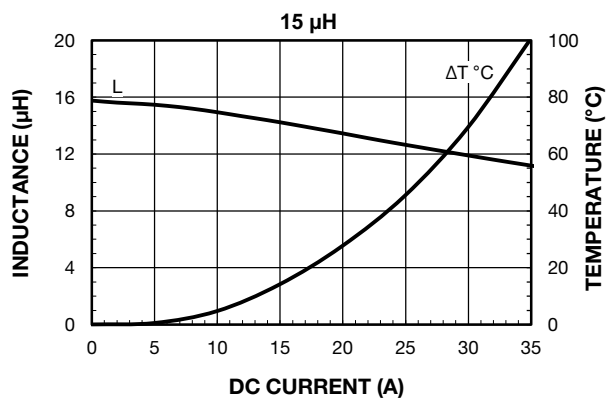
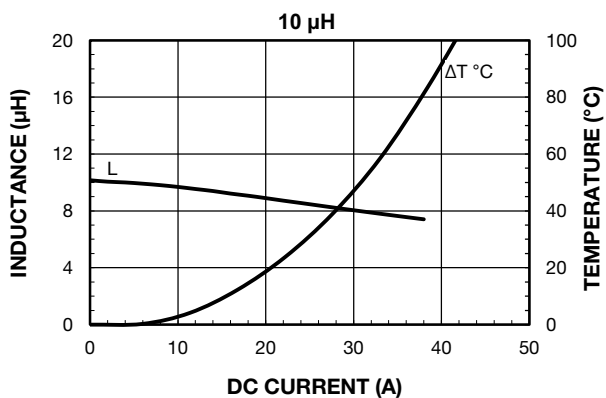
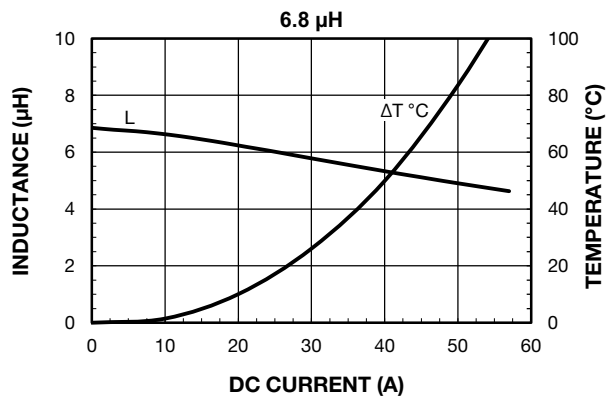
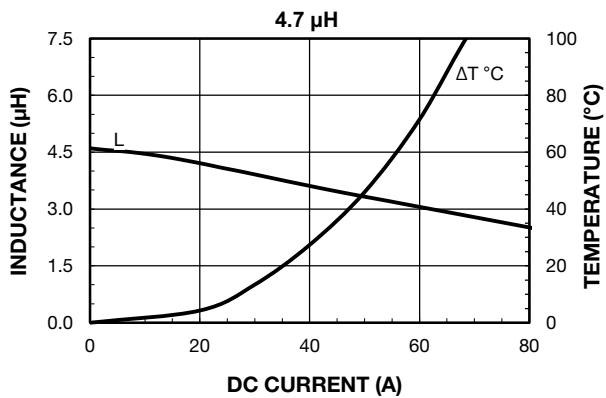
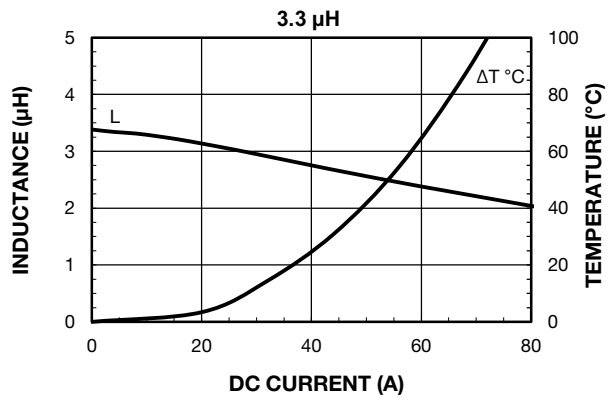
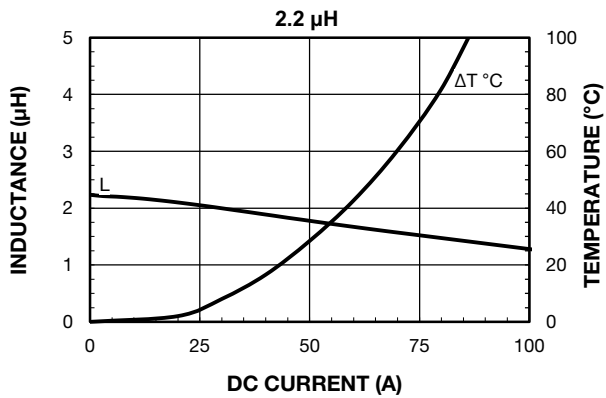
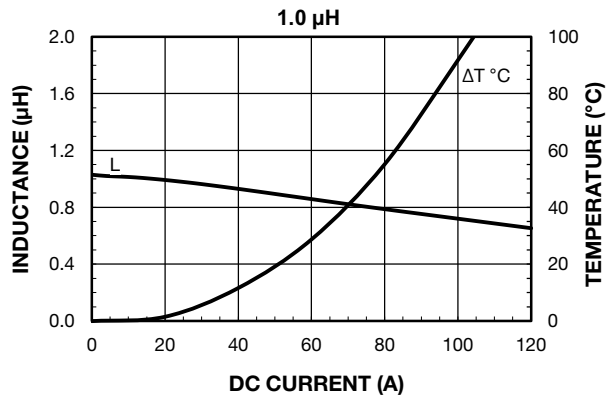
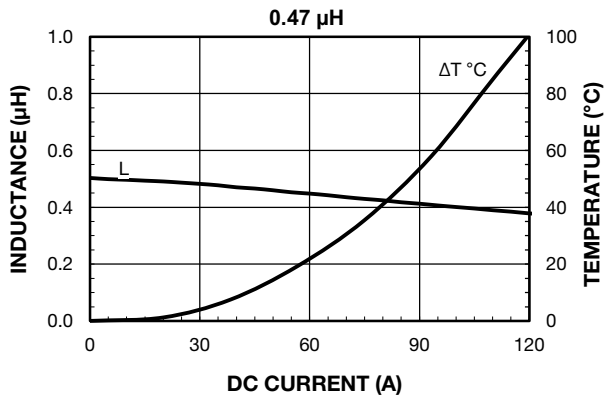
GLOBAL PART NUMBER																	
I	H	L	P	8	7	8	7	M	Z	E	R	1	0	1	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			

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



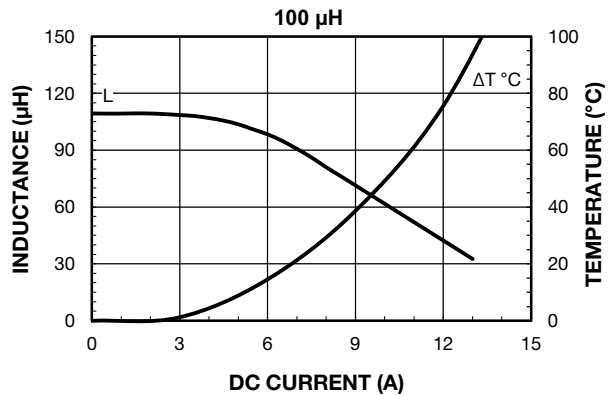
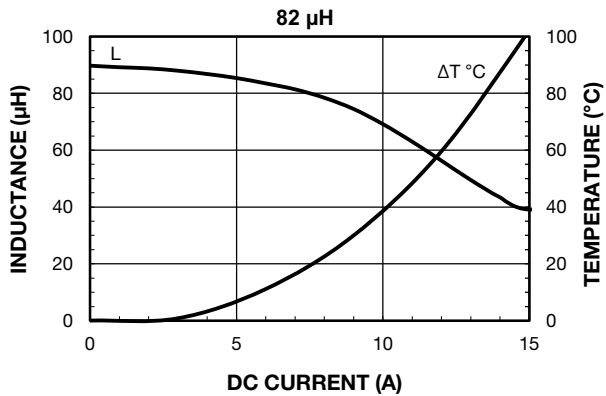
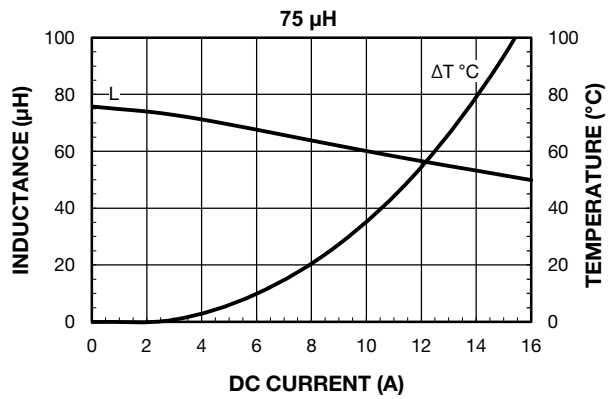
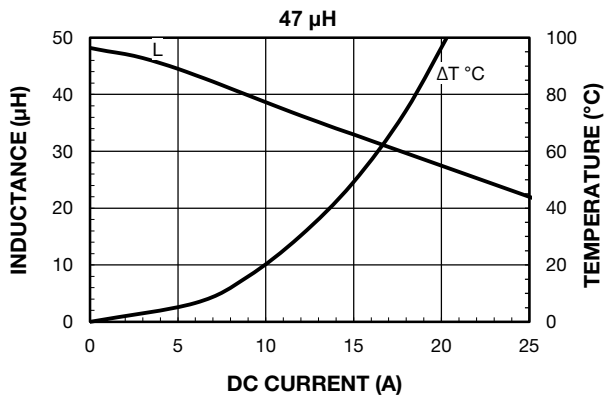
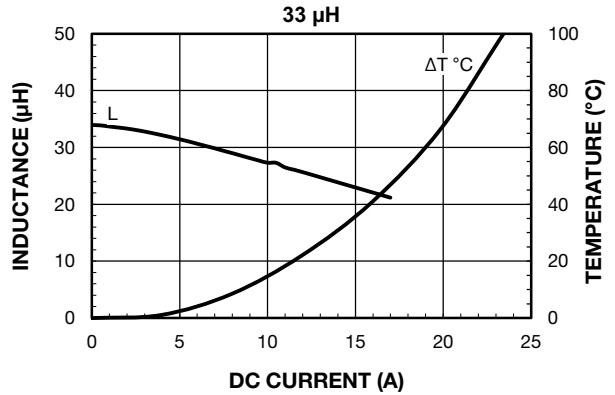
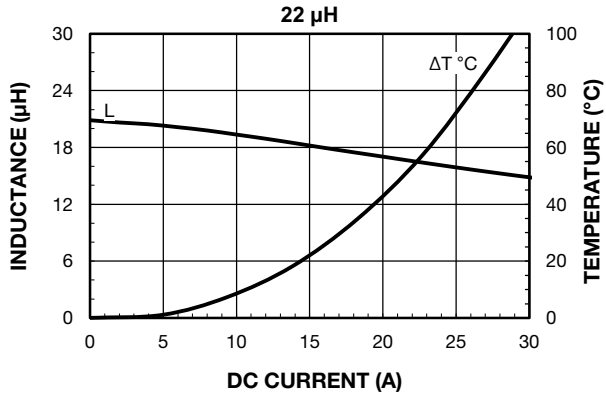
This Vishay product is protected by one or more United States and international patents.

PERFORMANCE GRAPHS



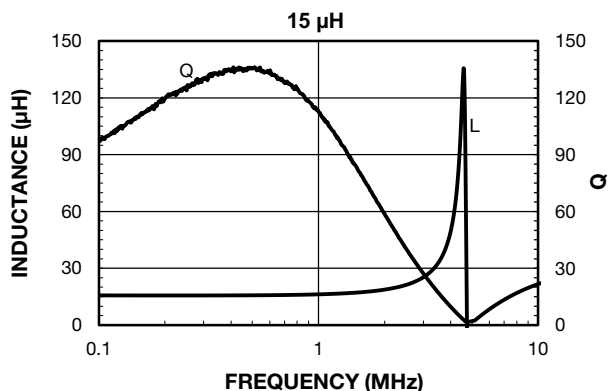
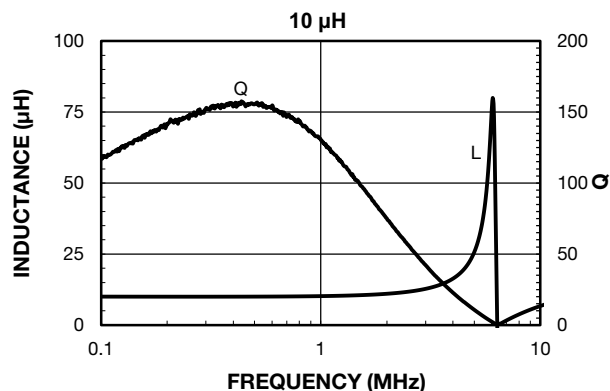
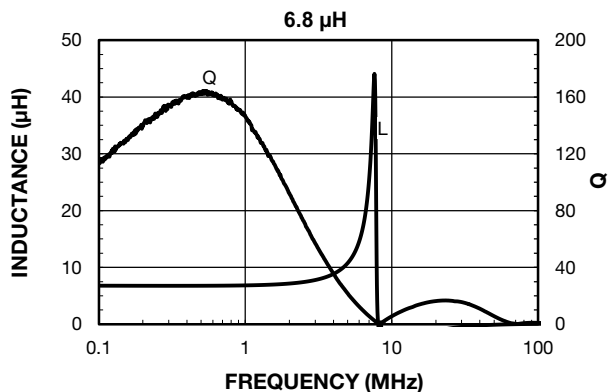
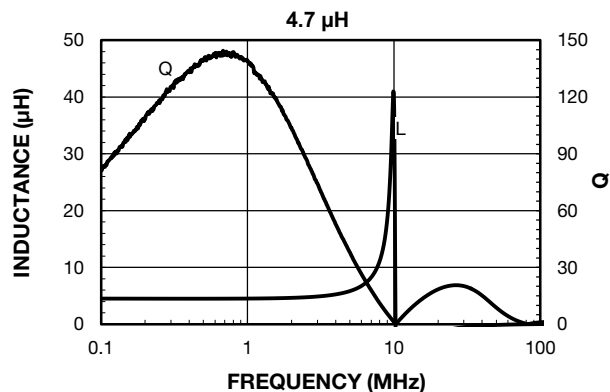
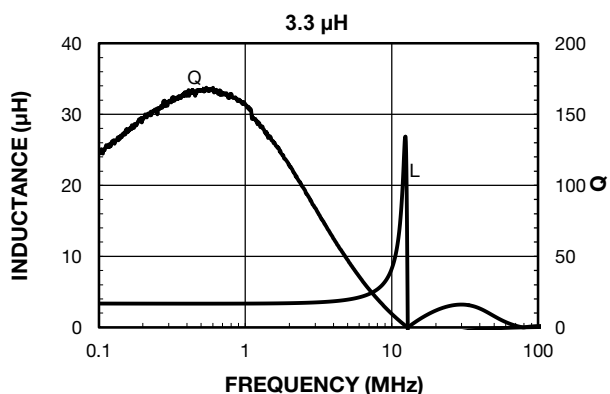
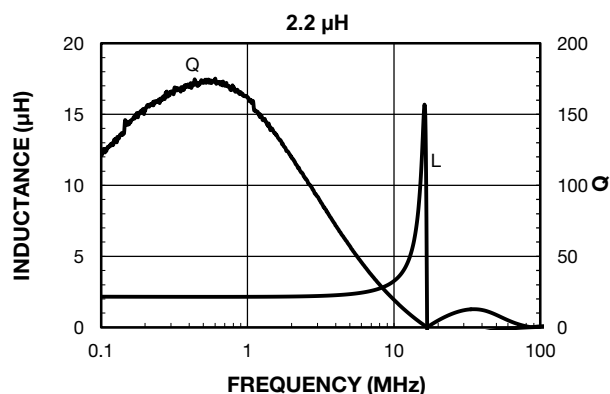
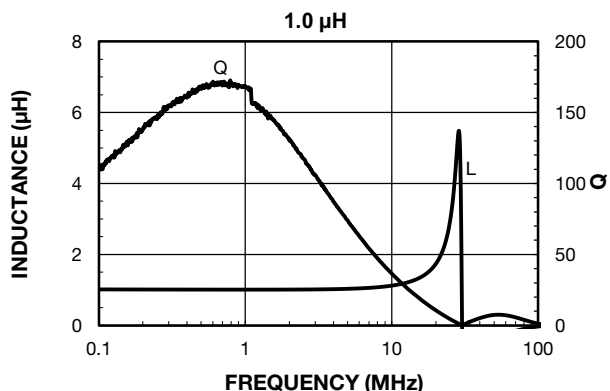
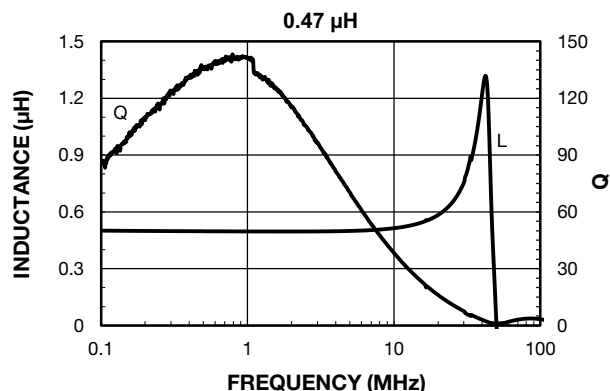


PERFORMANCE GRAPHS



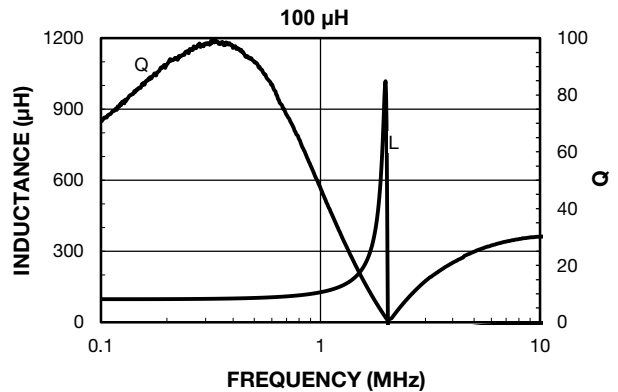
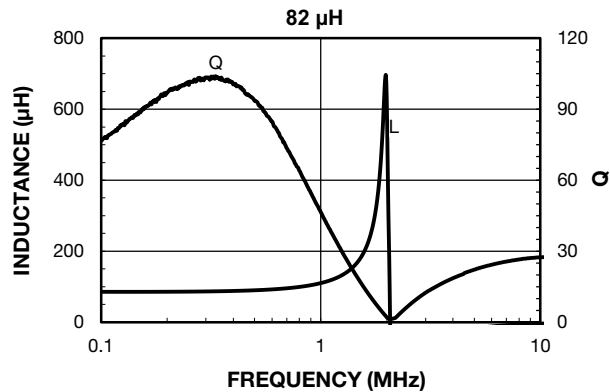
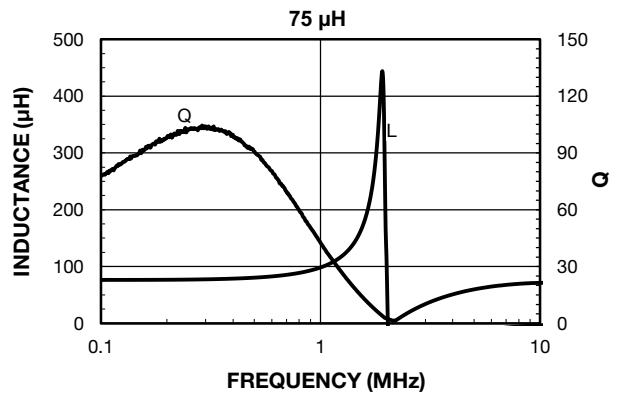
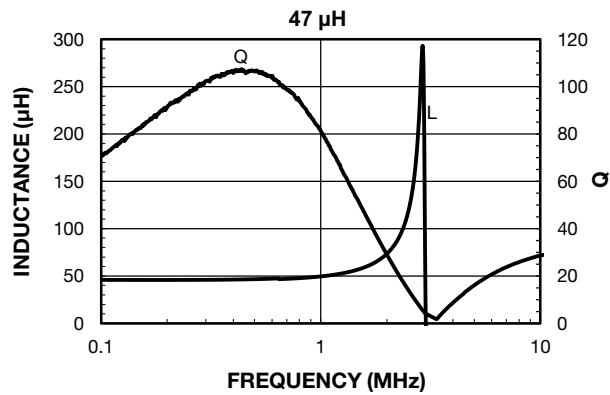
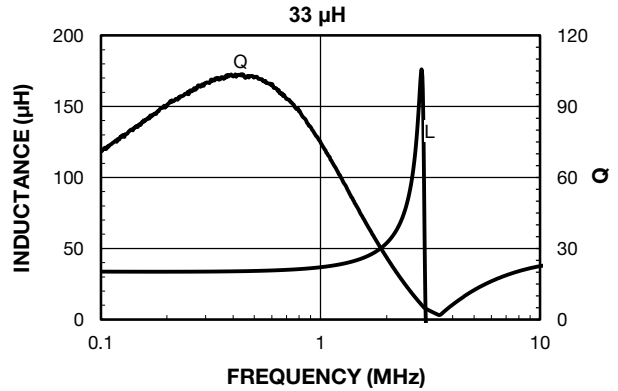
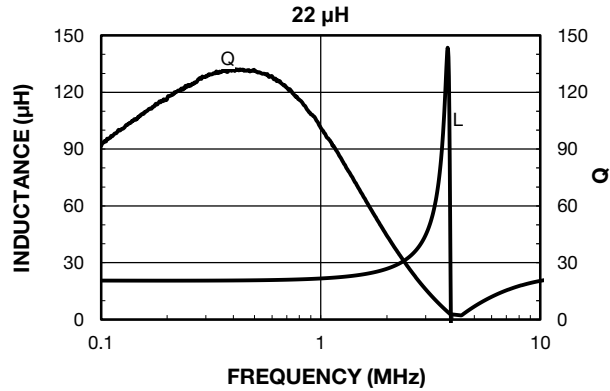


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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