



# IHLP<sup>®</sup> 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](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
**HALOGEN**  
**FREE**  
**GREEN**  
(5-2008)

### LINKS TO ADDITIONAL RESOURCES



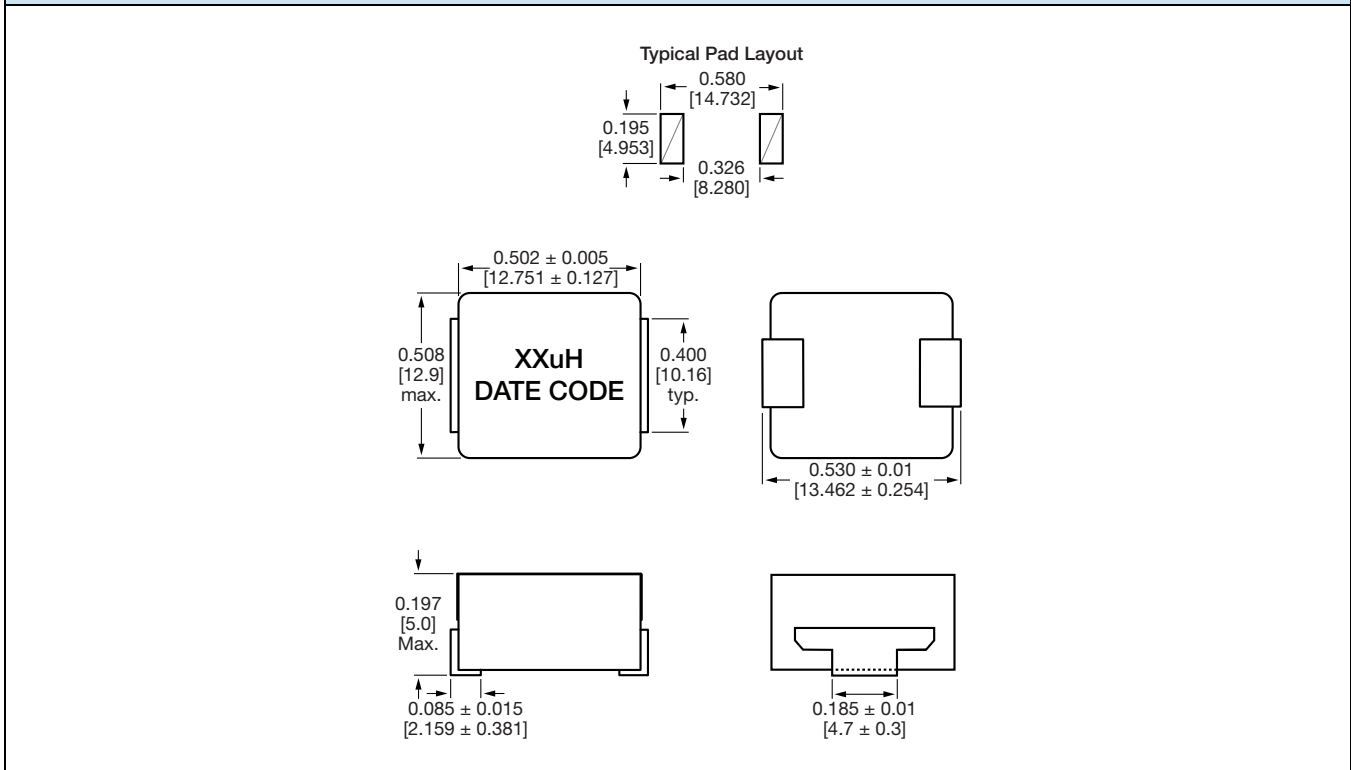
### APPLICATIONS

- 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 <sub>0</sub> 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) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)
IHLP5050EZE_R22M5A	0.22	0.69	0.76	68.18	69.24	99.9
IHLP5050EZE_R33M5A	0.33	0.93	1.02	62.38	45.24	77.5
IHLP5050EZE_R47M5A	0.47	1.15	1.23	49.88	33.08	59.6
IHLP5050EZE_R68M5A	0.68	1.33	1.41	49.63	30.00	50.5
IHLP5050EZE_1R0M5A	1.0	2.00	2.14	36.64	28.00	37.2
IHLP5050EZE_1R5M5A	1.5	2.75	2.94	31.27	28.00	30.6
IHLP5050EZE_1R8M5A	1.8	3.35	3.58	28.62	26.40	26.4
IHLP5050EZE_2R2M5A	2.2	3.50	3.75	22.00	26.10	22.7
IHLP5050EZE_3R0M5A	3.0	5.90	6.31	17.90	18.50	20.4
IHLP5050EZE_3R3M5A	3.3	7.20	7.70	16.00	18.00	17.8
IHLP5050EZE_4R7M5A	4.7	9.40	10.1	15.30	17.80	15.1
IHLP5050EZE_5R6M5A	5.6	12.3	13.2	13.96	16.90	14.7
IHLP5050EZE_6R8M5A	6.8	15.0	16.1	10.60	12.50	14.4
IHLP5050EZE_8R2M5A	8.2	15.5	16.6	12.85	9.83	11.4
IHLP5050EZE_100M5A	10	18.8	20.1	9.34	7.50	11.0
IHLP5050EZE_150M5A	15	27.8	29.7	7.70	7.50	9.6
IHLP5050EZE_220M5A	22	41.9	44.8	6.90	6.30	7.4
IHLP5050EZE_470M5A	47	105	112	3.90	4.80	4.2
IHLP5050EZE_820M5A	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
- <sup>(1)</sup> DC current (A) that will cause an approximate ΔT of 40 °C  
<sup>(2)</sup> DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %

**DIMENSIONS** in inches [millimeters]

**DESCRIPTION**

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

**GLOBAL PART NUMBER**

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

**PACKAGE CODE OPTIONS**

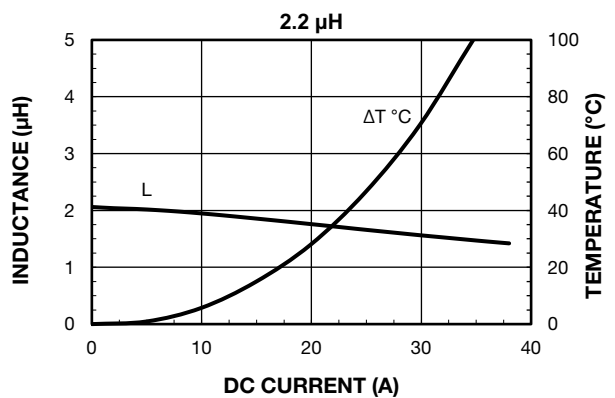
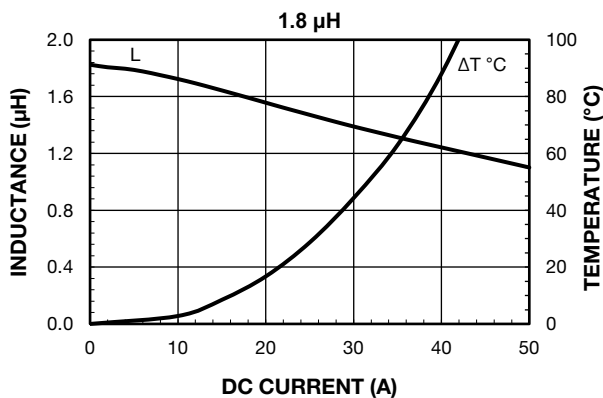
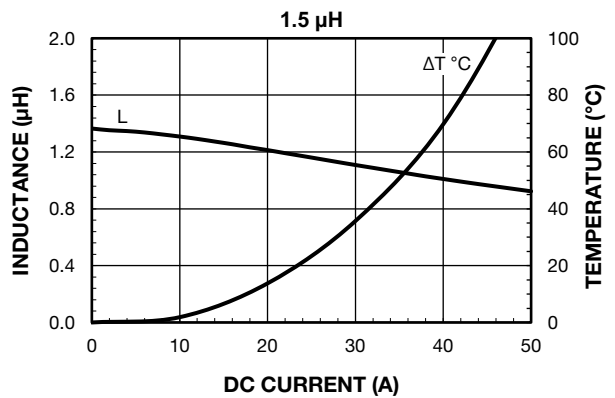
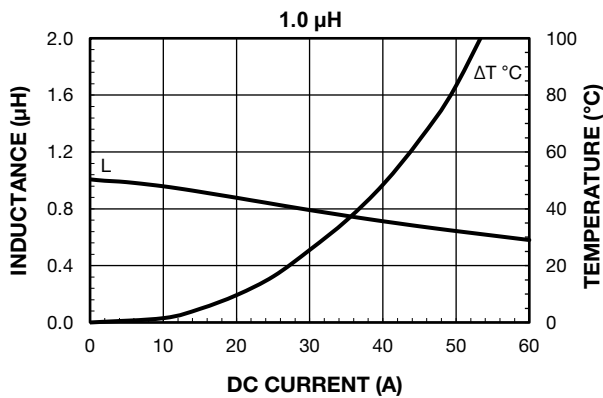
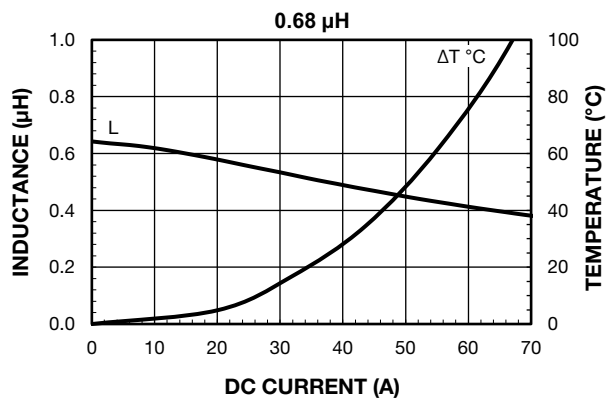
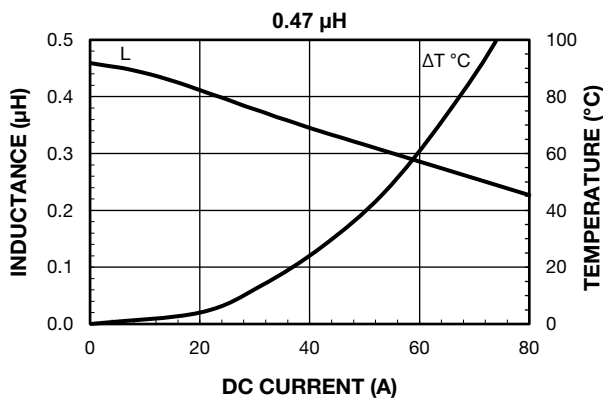
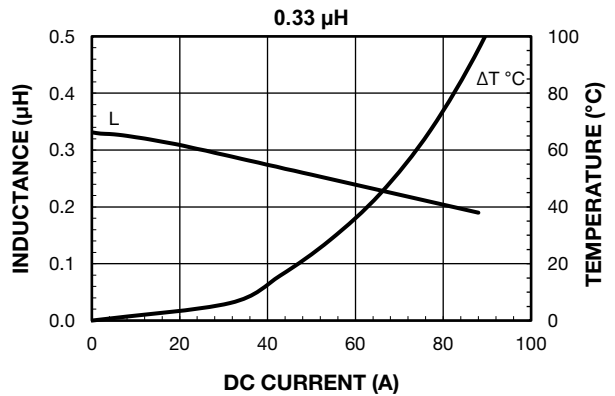
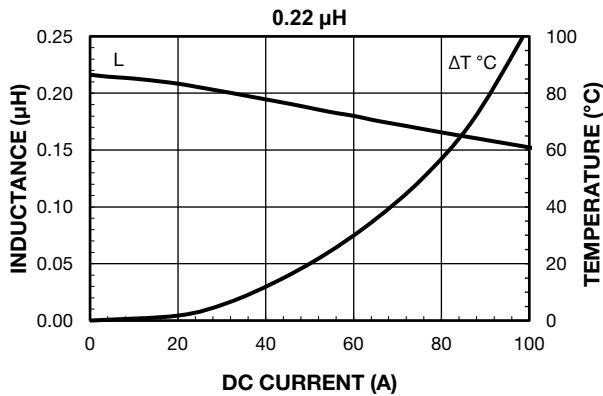
<b>EK</b> = tape and reel packaging (750 pcs on 13-inch reel)
<b>ER</b> = tape and reel packaging (250 pcs on 13-inch reel)

**Note**

- For additional packaging details see "[Packaging Methods](#)"

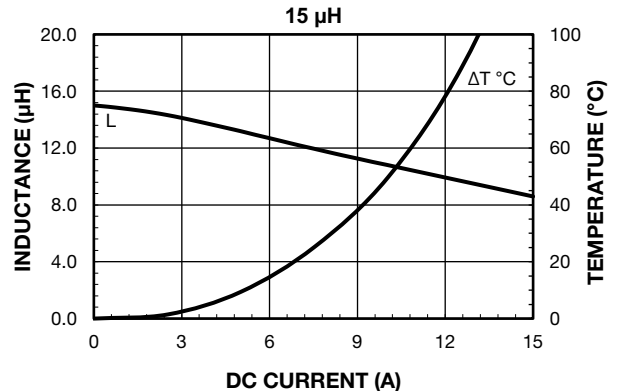
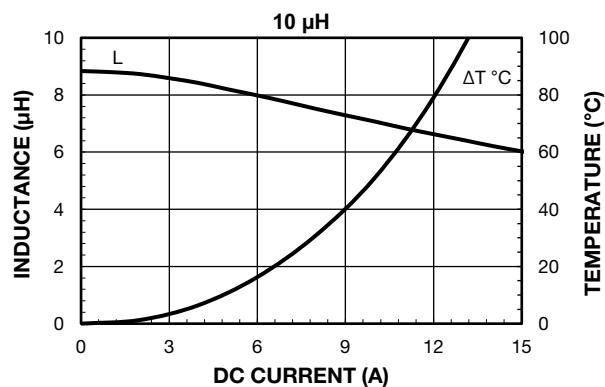
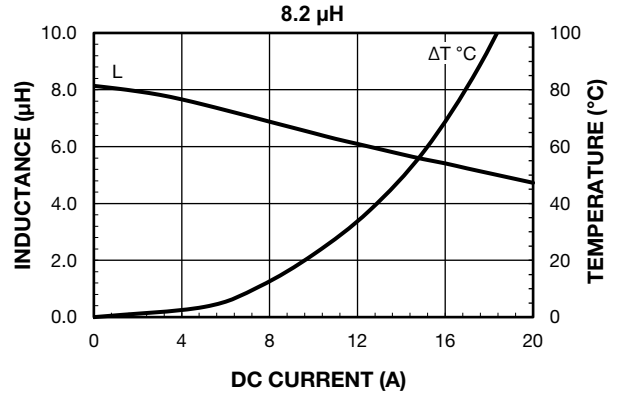
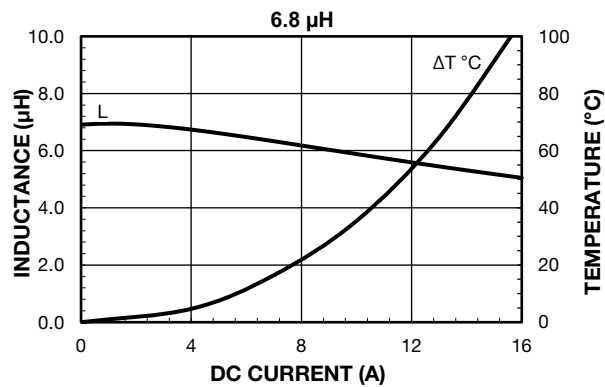
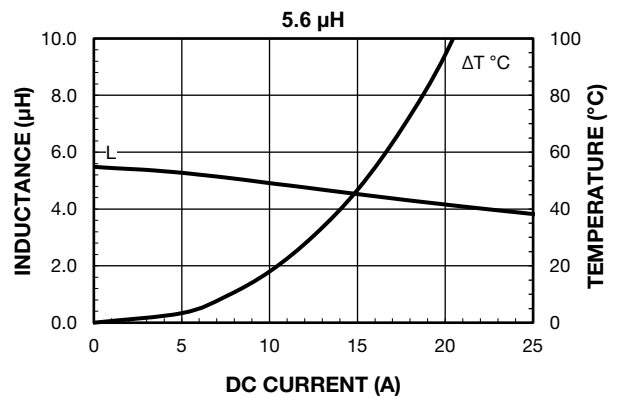
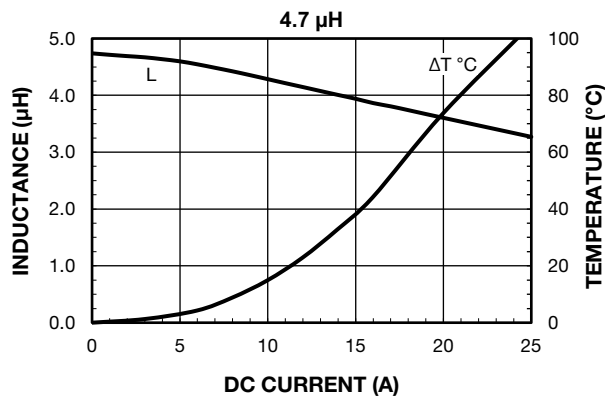
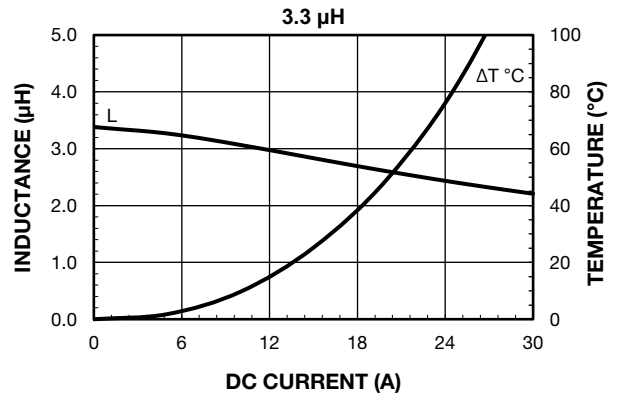
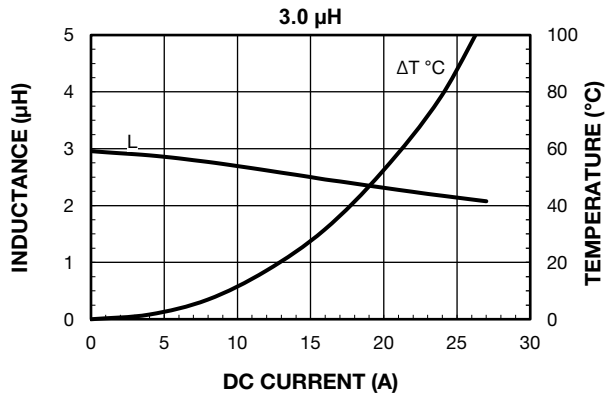


PERFORMANCE GRAPHS



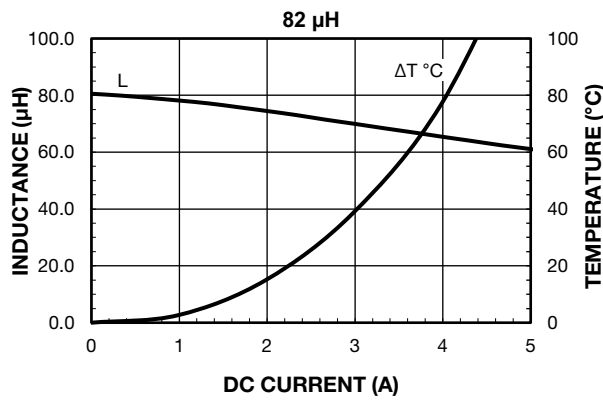
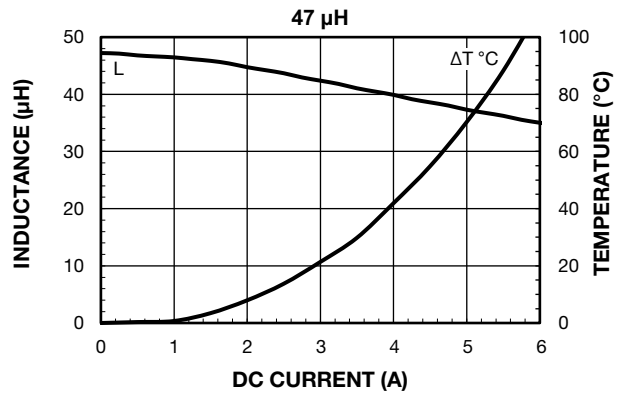
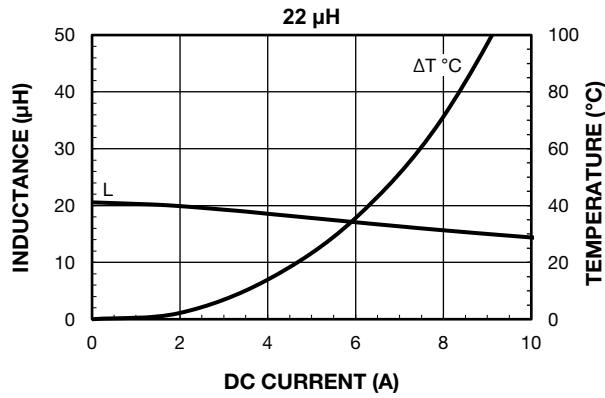


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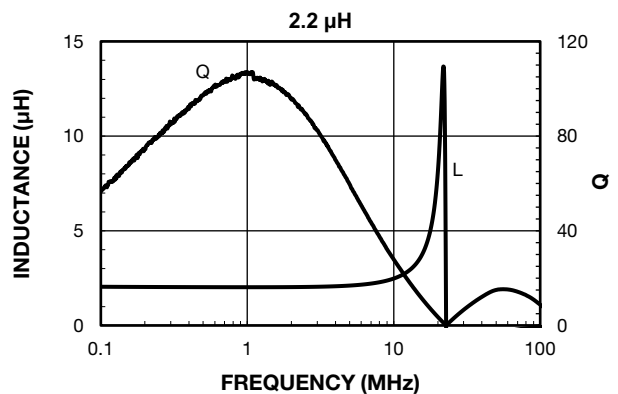
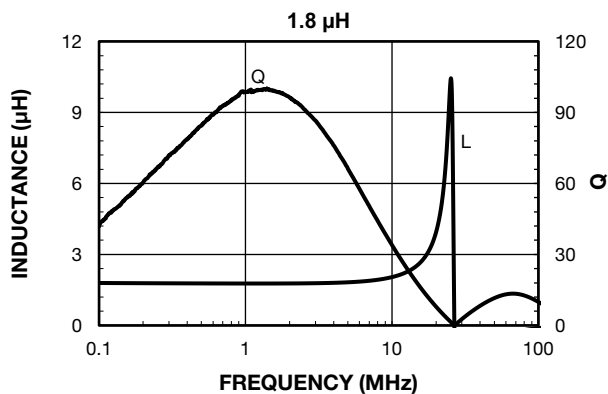
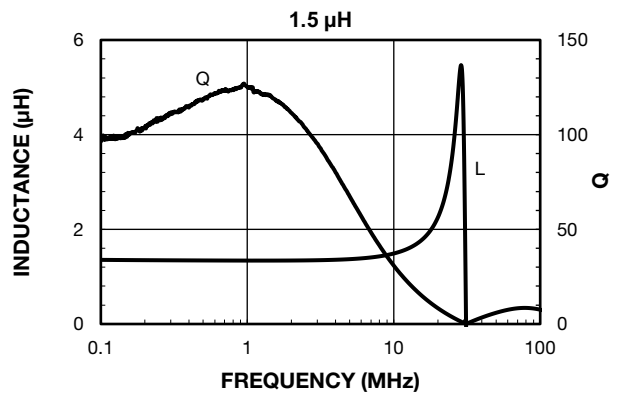
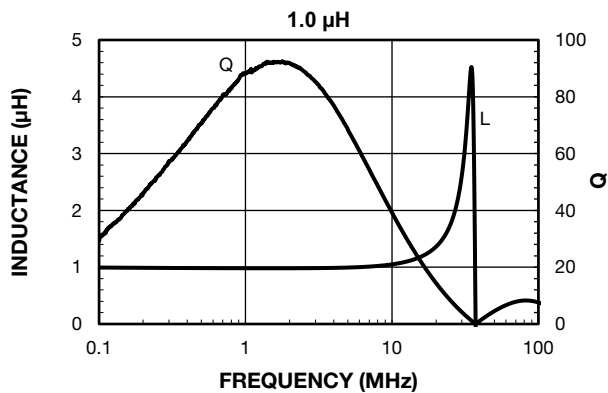
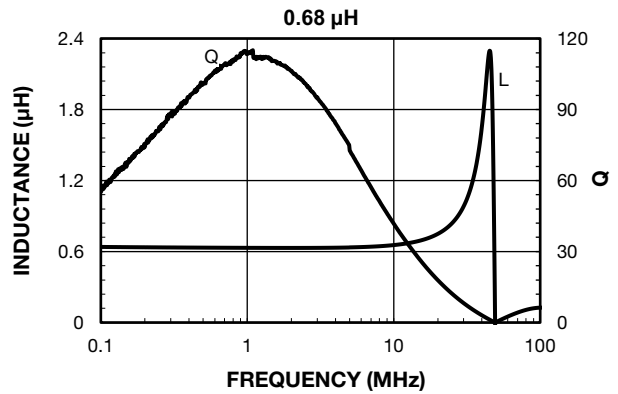
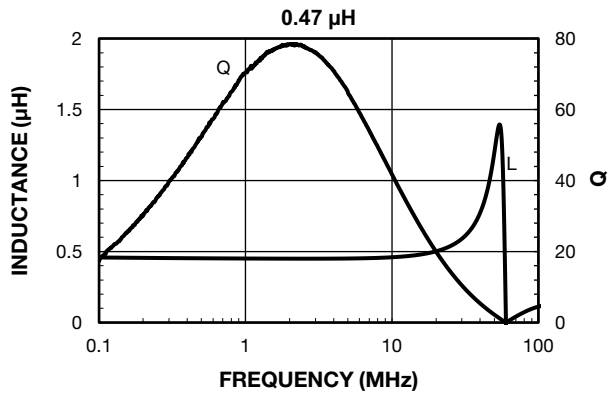
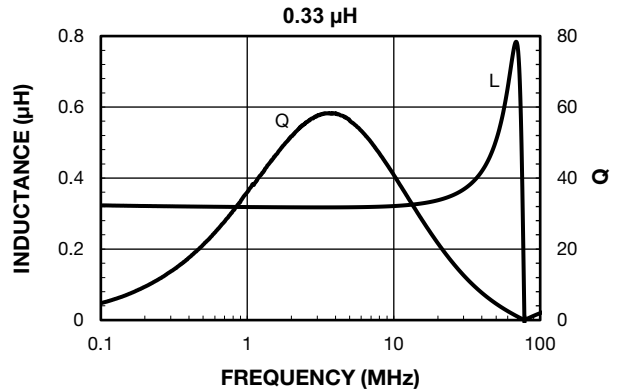
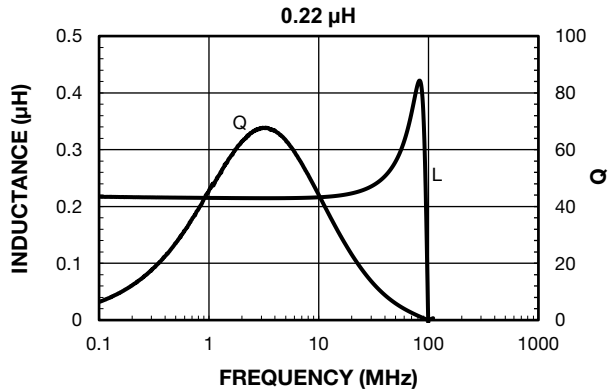


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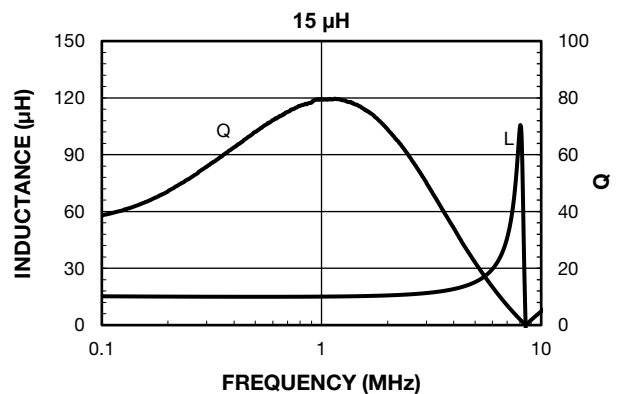
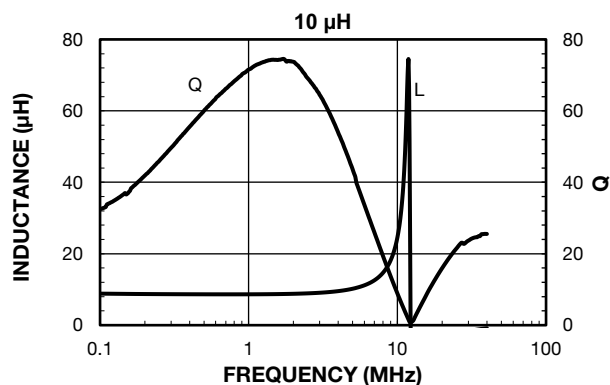
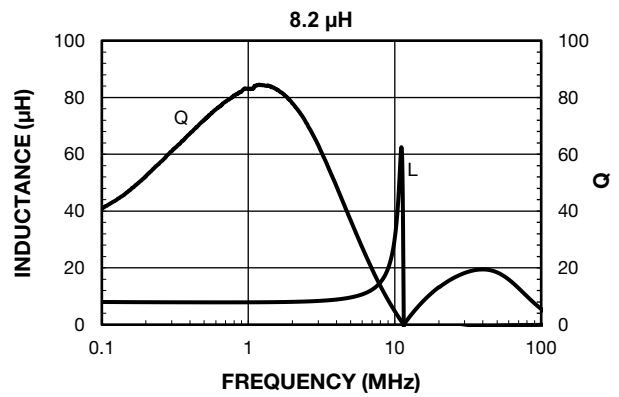
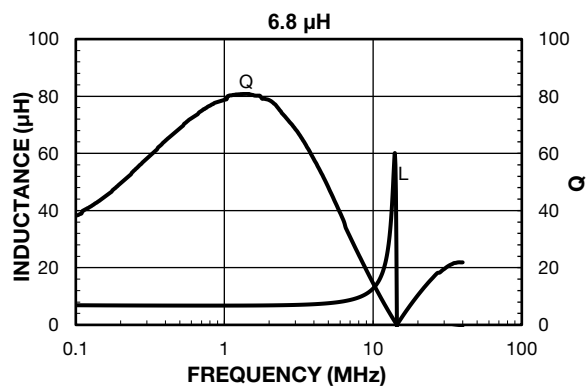
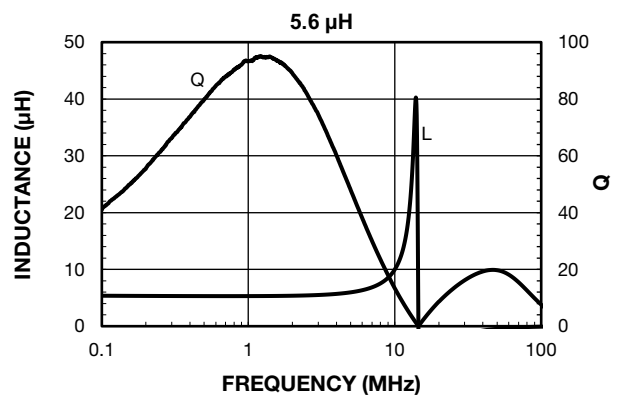
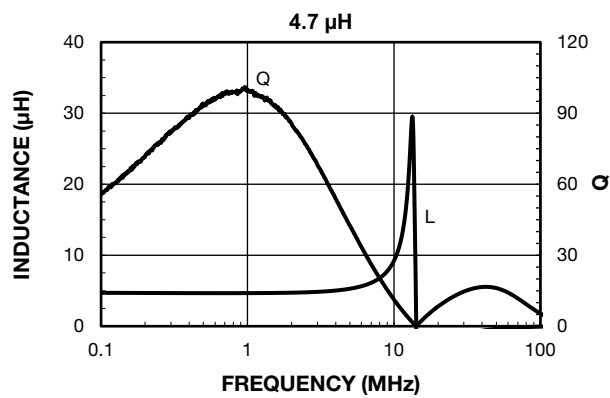
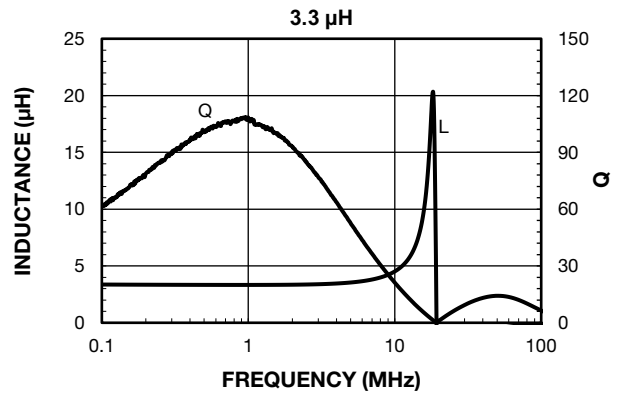
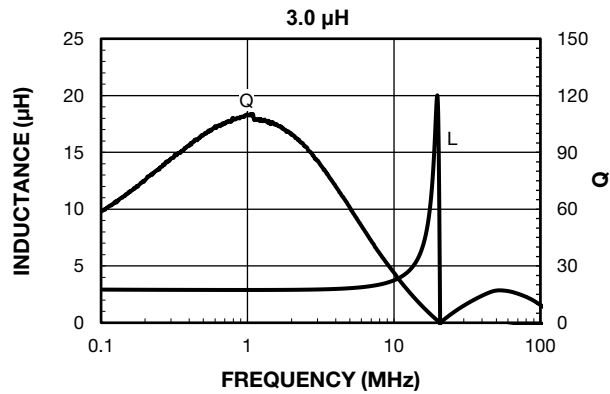


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



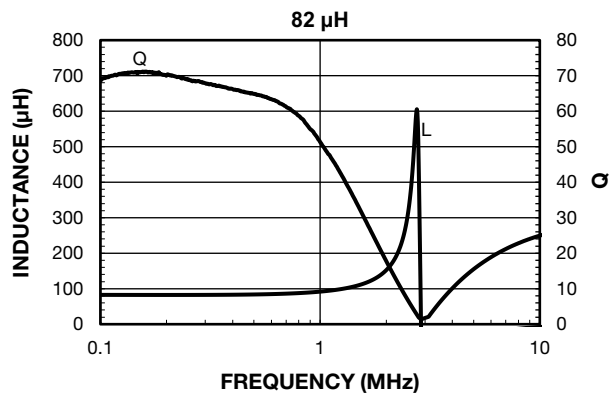
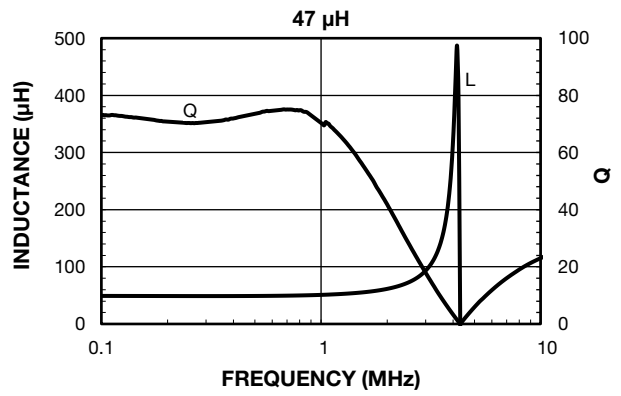
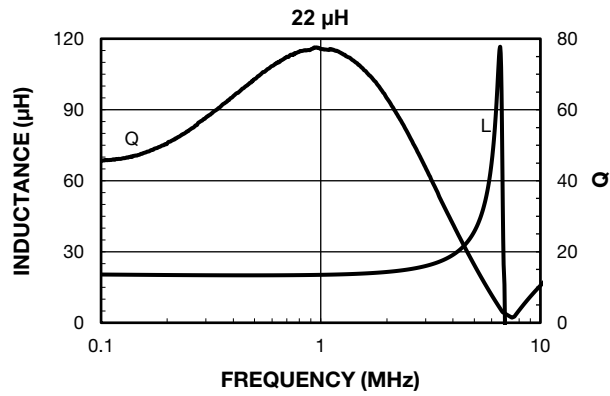


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





**PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY**







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