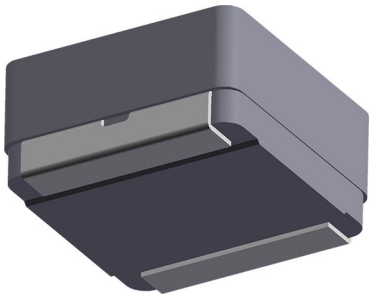
IHLP® Automotive Inductors, Wide Terminal for High Shock and Vibration



FEATURES

- 13.2 mm x 12.8 mm x 6.4 mm size
- Wide terminal for improved mechanical stability and shock and vibration performance
- High temperature up to 155 °C
- Magnetically shielded 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

APPLICATIONS

- Engine and transmission control units
- DC/DC converters for infotainment, navigation systems, lighting
- Noise suppression and filtering
- 50 *g* shock and vibration applications

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)		SRF TYP. (MHz)
					20 % DROP (2)	30 % DROP (3)	
IHLP505WFDERR22M5A	0.22	0.73	0.81	66	68	95	113
IHLP505WFDERR33M5A	0.33	0.83	0.92	62	44	57	79.9
IHLP505WFDERR47M5A	0.47	1.05	1.16	54	42	55	65.6
IHLP505WFDERR56M5A	0.56	1.24	1.33	50	32	45	63.1
IHLP505WFDERR68M5A	0.68	1.33	1.42	40	29	41	48.1
IHLP505WFDER1R0M5A	1	1.65	1.77	40	26	40	33.4
IHLP505WFDER1R2M5A	1.2	1.98	2.12	29	24.5	34	32
IHLP505WFDER1R5M5A	1.5	2.4	2.57	27.5	23.5	35	29.2
IHLP505WFDER1R8M5A	1.8	2.75	2.94	26	22.5	32	25.9
IHLP505WFDER2R2M5A	2.2	3.43	3.67	25.5	21.5	30	23.3
IHLP505WFDER3R3M5A	3.3	5.08	5.44	20.2	16.7	23	17.8
IHLP505WFDER4R7M5A	4.7	7.41	7.93	19.7	18.5	26	15.8
IHLP505WFDER5R6M5A	5.6	8.51	9.11	16.8	14.2	20	12.3
IHLP505WFDER6R8M5A	6.8	11.3	12.09	14.9	14.1	20	13.4
IHLP505WFDER7R8M5A	7.8	12.6	13.48	13.5	8.5	12	13.4
IHLP505WFDER8R2M5A	8.2	13.2	14.12	13.2	7.6	11	10.3
IHLP505WFDER100M5A	10	16.6	17.76	12.1	7.8	11	10.7
IHLP505WFDER120M5A	12	19	20.33	11.4	7.9	11	9.5
IHLP505WFDER150M5A	15	24	25.68	10.1	7.7	11	8.8
IHLP505WFDER220M5A	22	31.3	33.49	9	6.3	9	6.6
IHLP505WFDER330M5A	33	46.03	49.25	6.9	6.2	9	5.5
IHLP505WFDER470M5A	47	77	79.6	5.6	5.7	8.4	4.1
IHLP505WFDER820M5A	82	141.1	150.98	3.7	3.7	5.2	3
IHLP505WFDER101M5A	100	175	187	3.1	4.3	5.1	2.8

Notes

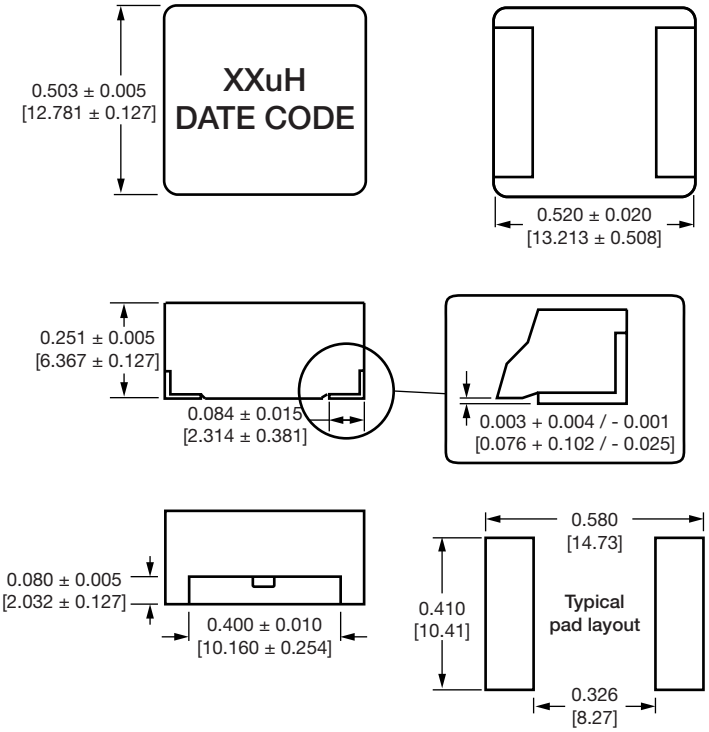
- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions 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 %
(3) DC current (A) that will cause L_0 to drop approximately 30 %

For technical questions, contact: magnetics@vishay.com

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DIMENSIONS in inches [millimeters]



DESCRIPTION

IHLP505WFD-5A	4.7 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

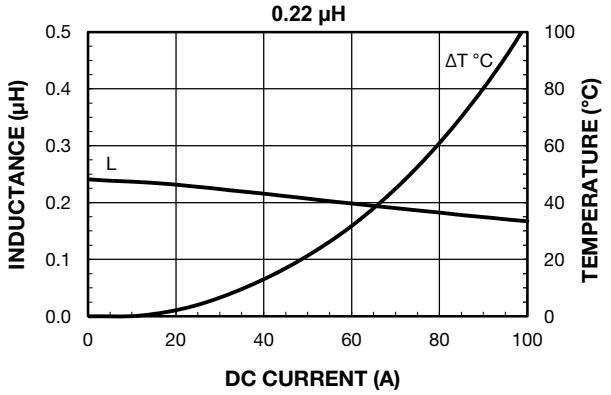
GLOBAL PART NUMBER

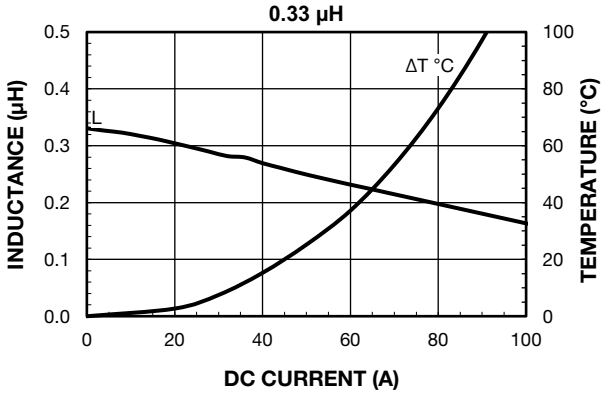
I H L P	5 0 5 W F D	E R	4 R 7	M	5 A
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		ER = tape and reel	**4R7** = 4.7 µH	**M** = ± 20 %	

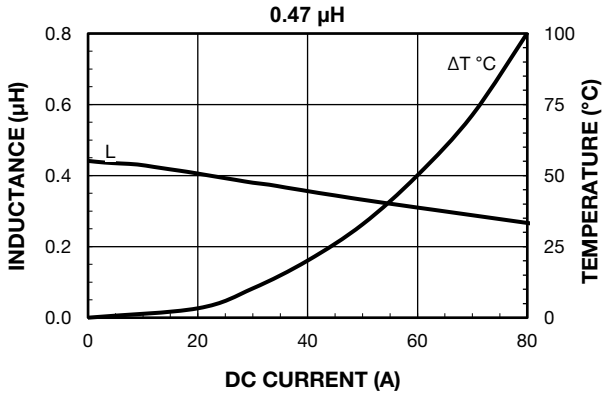
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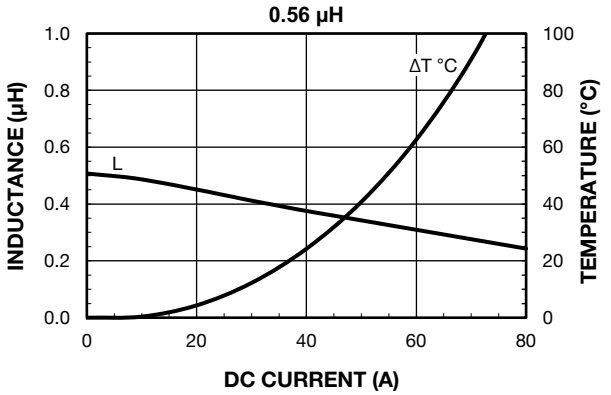
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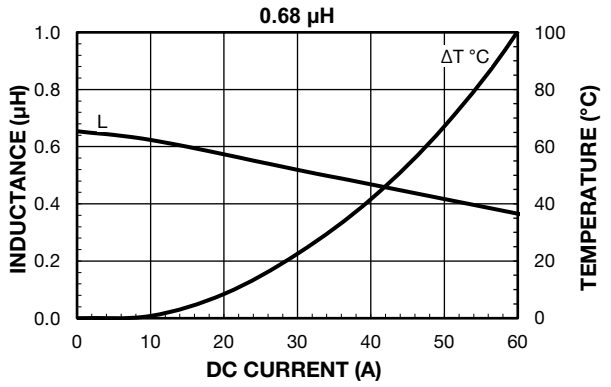
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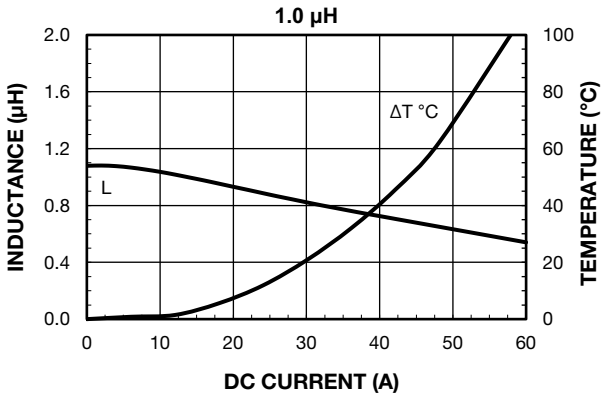


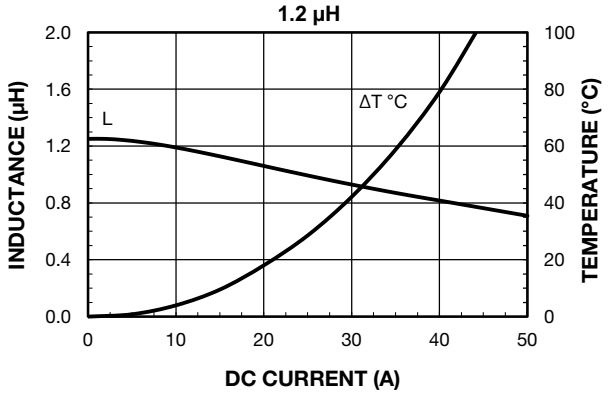


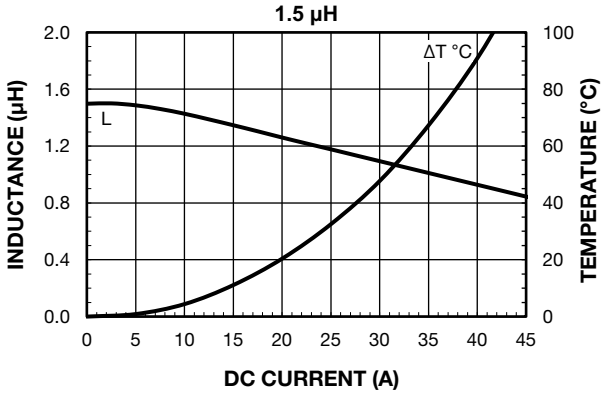










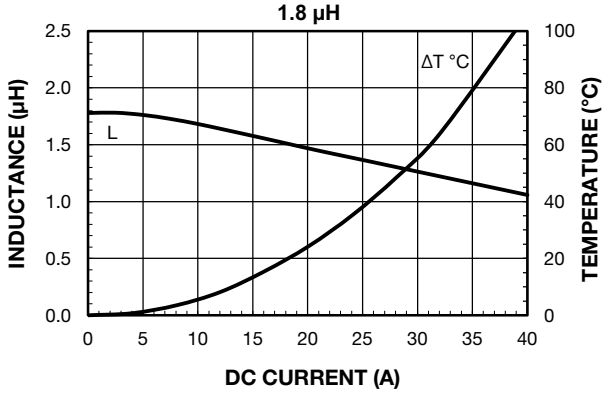


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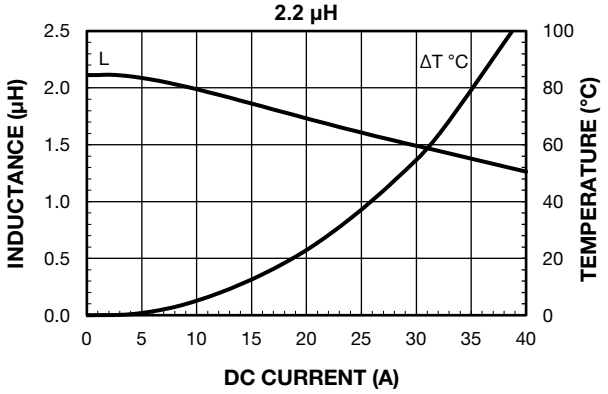
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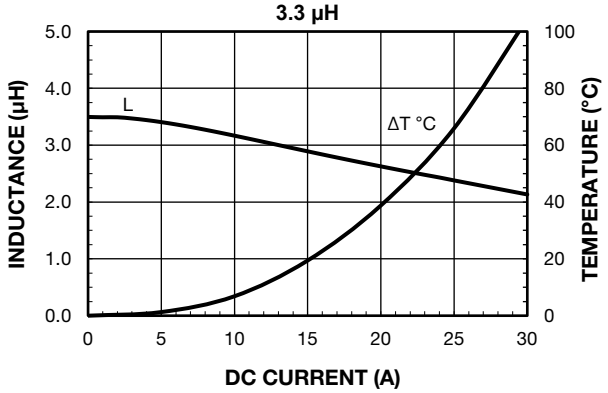
1.8 µH



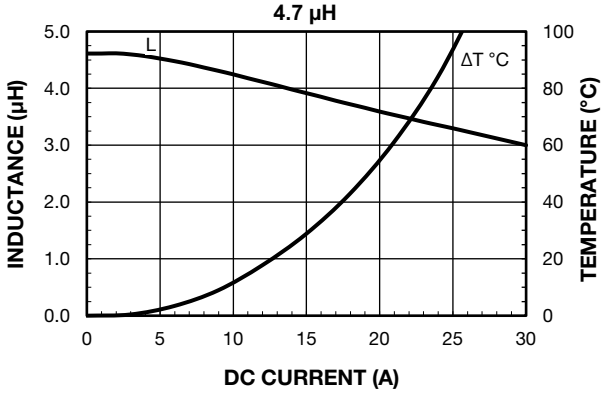
2.2 µH



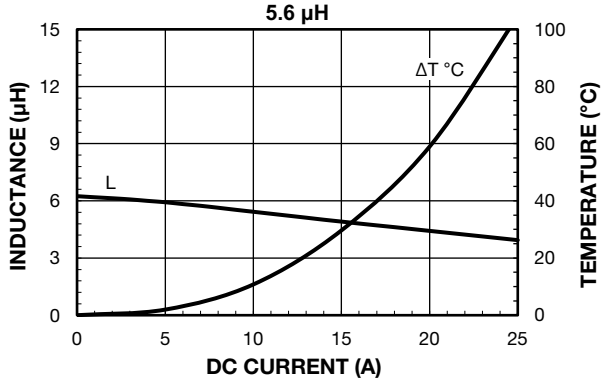
3.3 µH



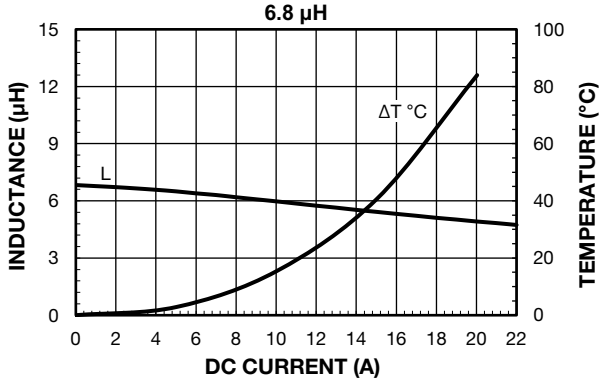
4.7 µH



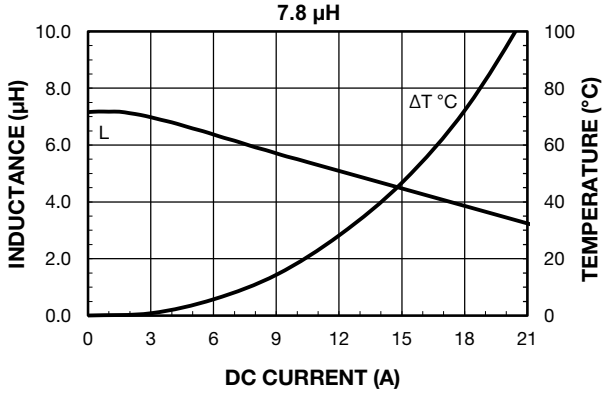
5.6 µH



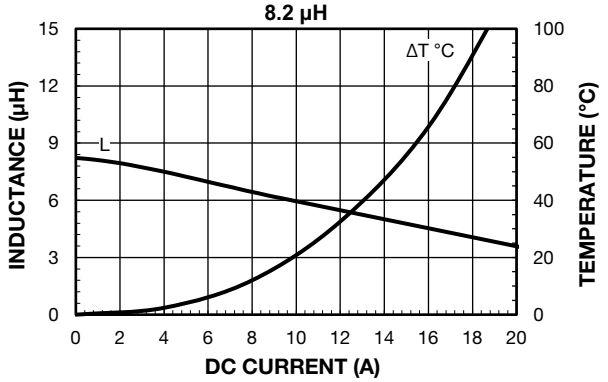
6.8 µH



7.8 µH



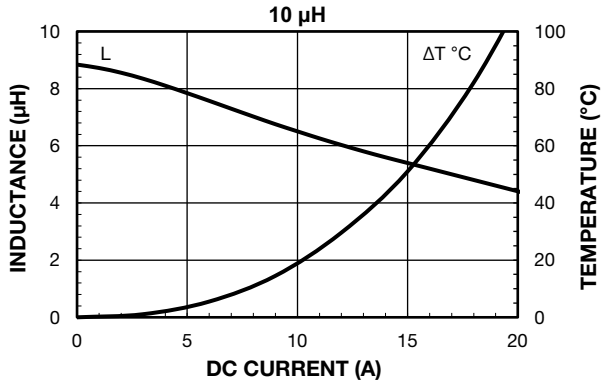
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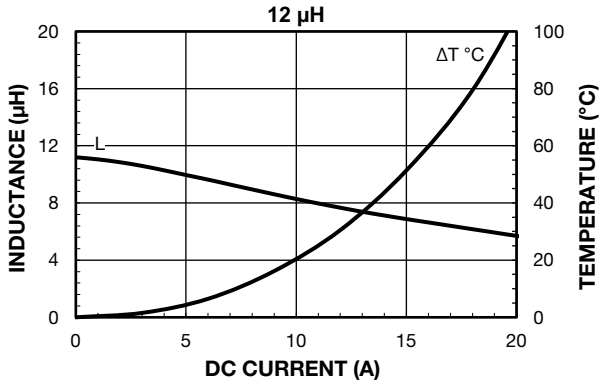


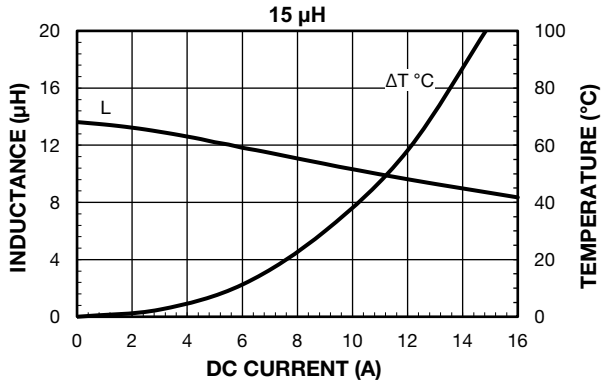
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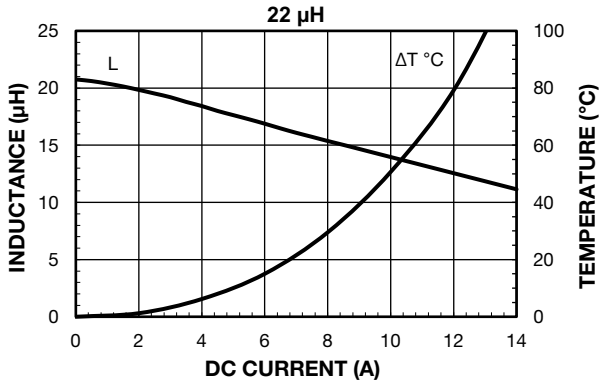
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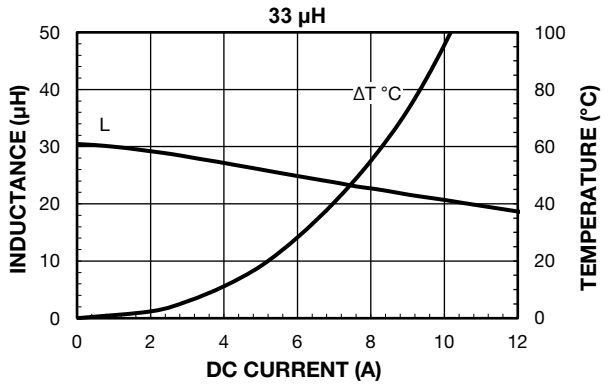
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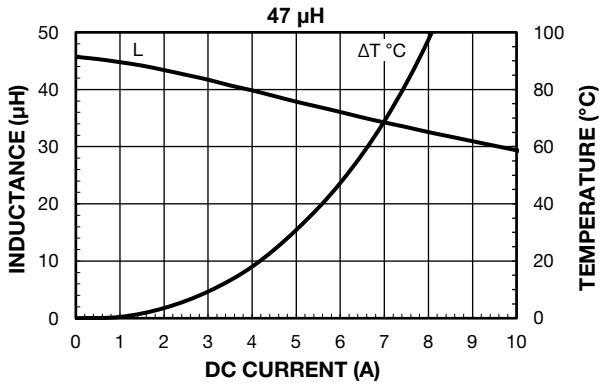


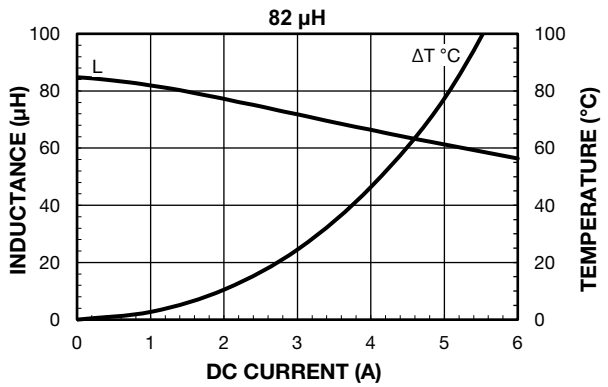


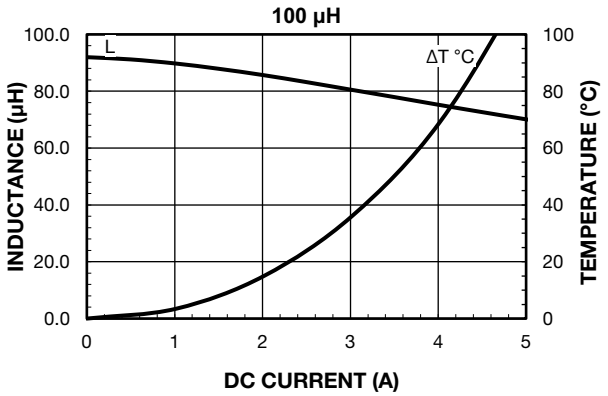








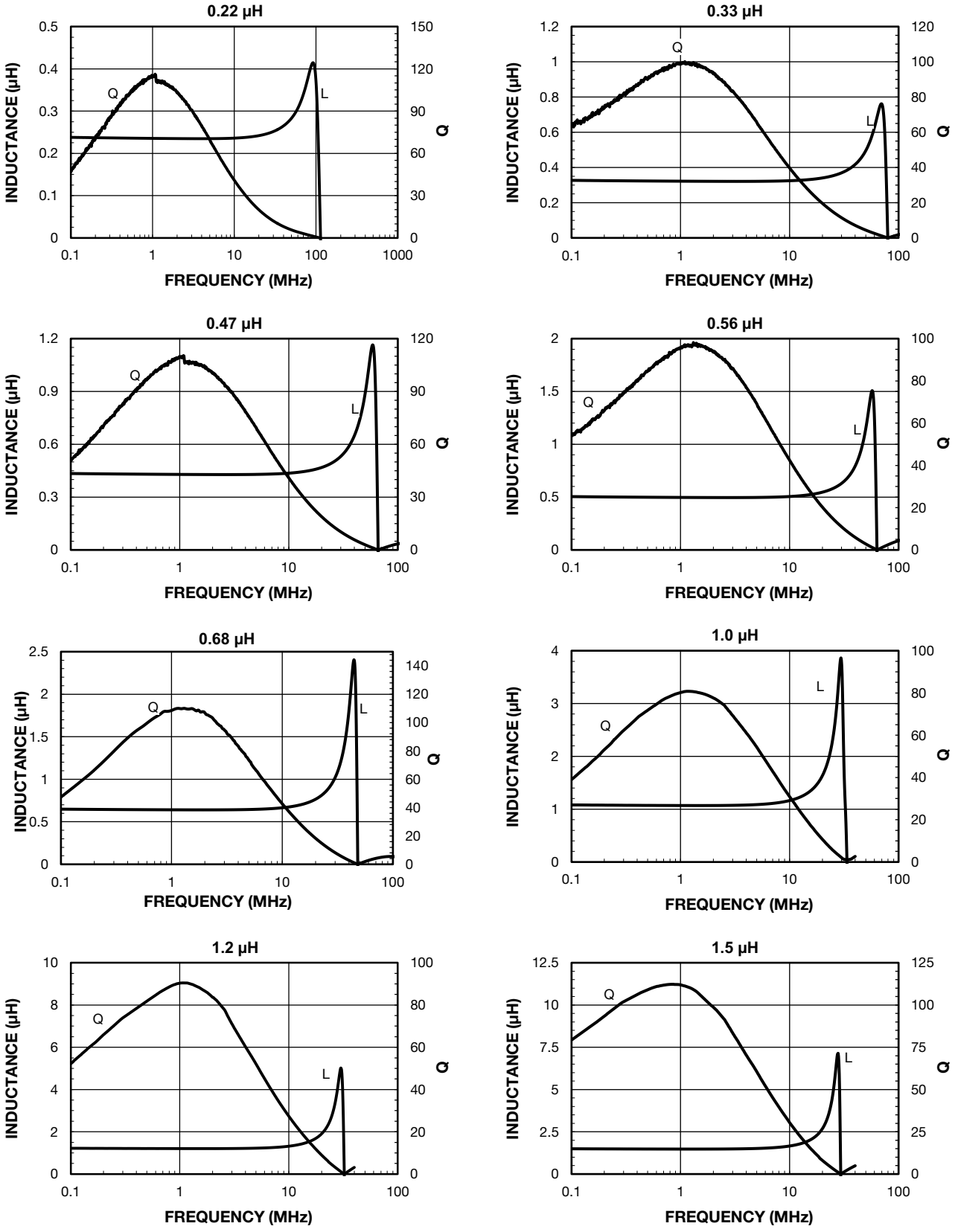




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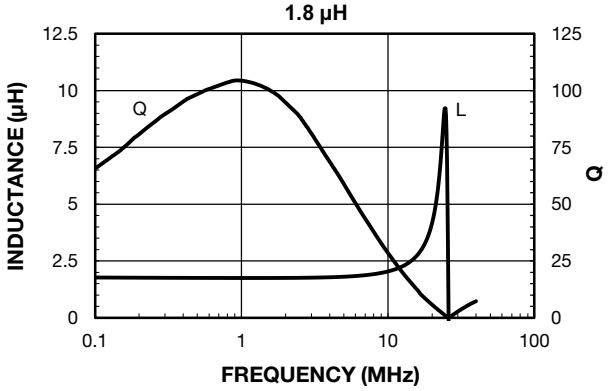
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



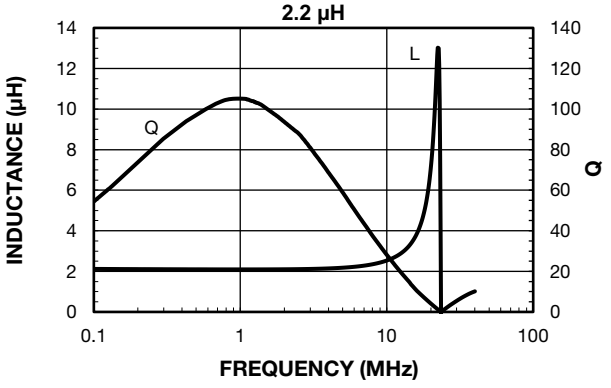
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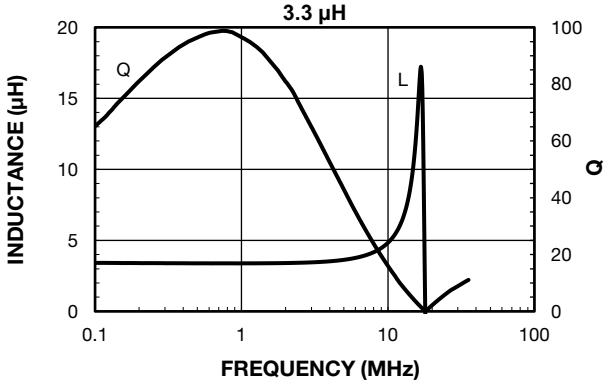
1.8 µH



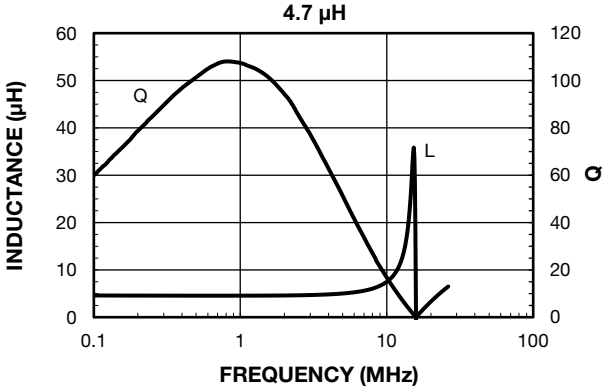
2.2 µH



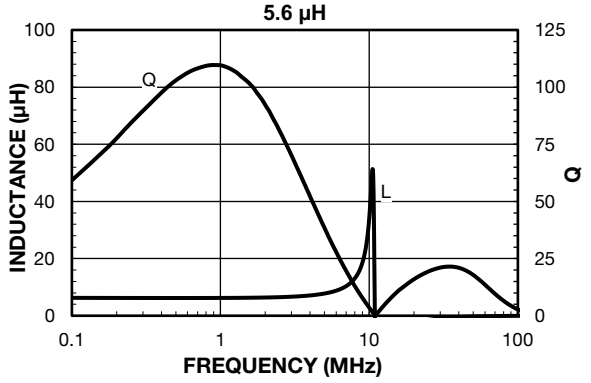
3.3 µH



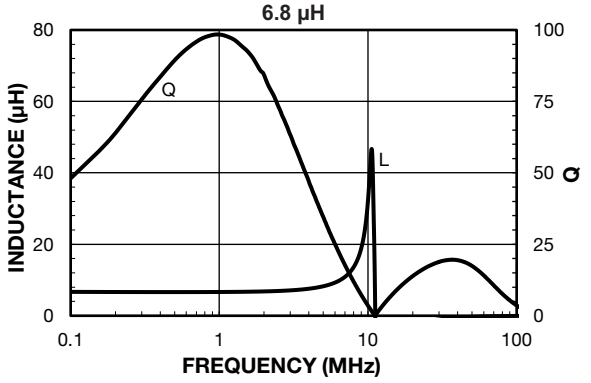
4.7 µH



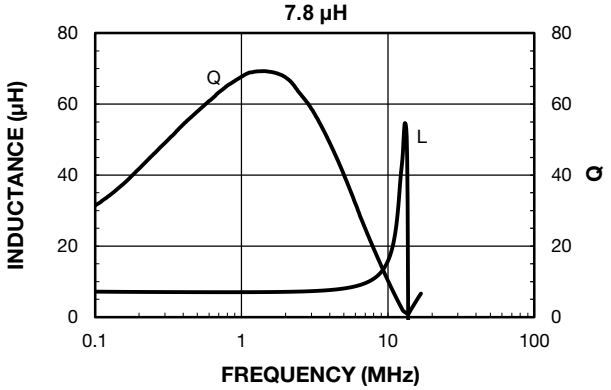
5.6 µH



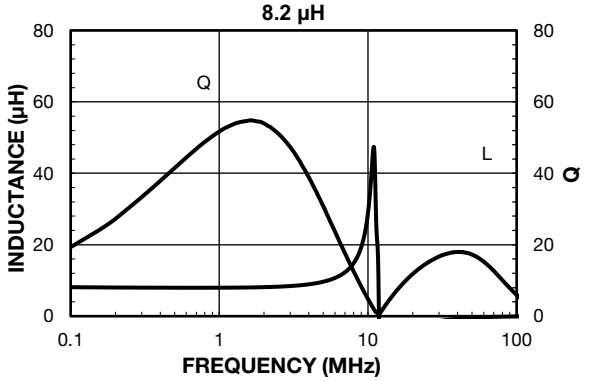
6.8 µH



7.8 µH

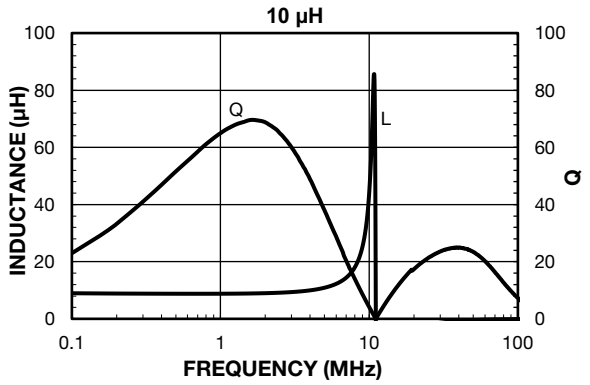


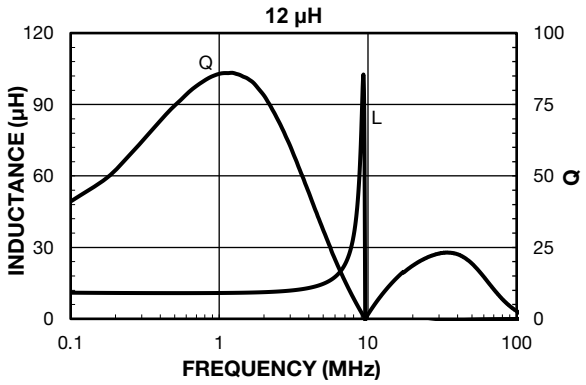
8.2 µH

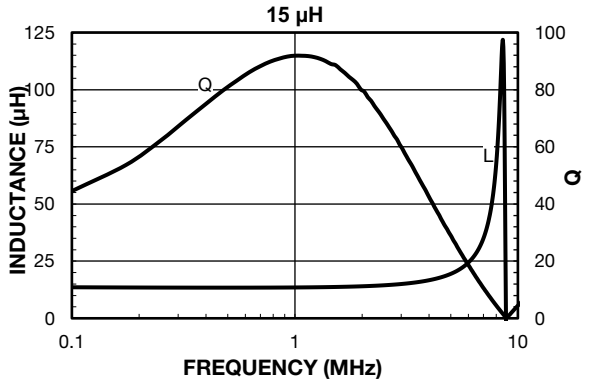


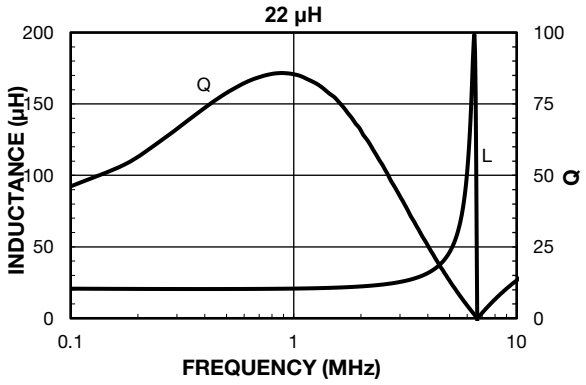
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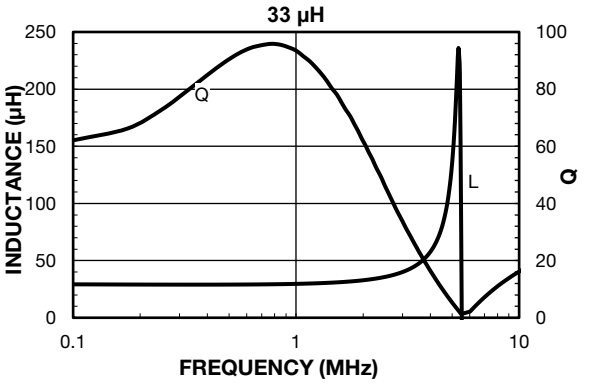
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

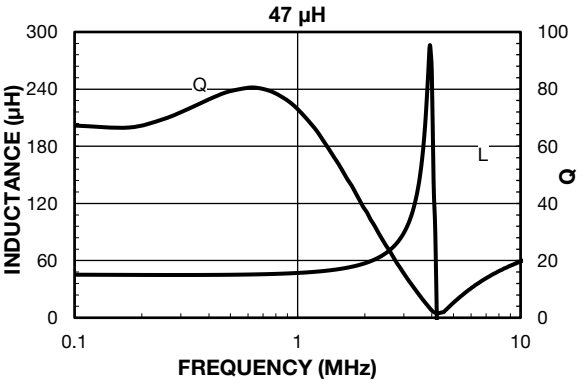


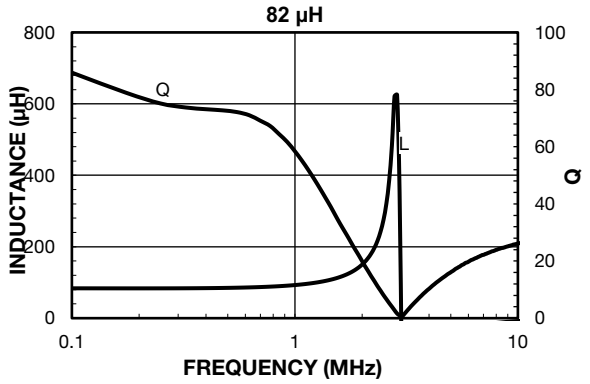


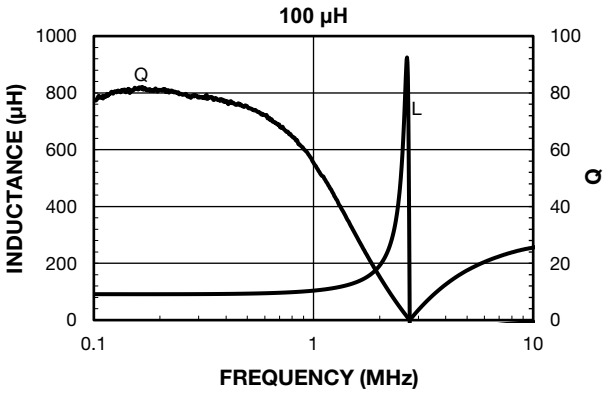












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