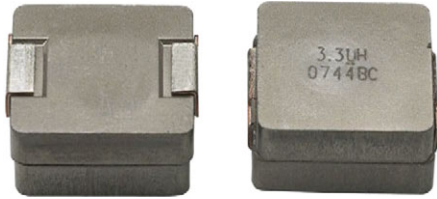


IHLP[®] Commercial Inductors, High Temperature (155 °C) Series



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)
0.22	0.73	0.81	66	68	113
0.33	0.83	0.92	62	44	79.9
0.47	1.05	1.16	54	42	65.6
0.56	1.24	1.33	50	32	63.1
0.68	1.33	1.42	40	29	48.1
1.0	1.65	1.77	40	26	33.4
1.2	1.98	2.12	29	24.5	32.0
1.5	2.4	2.57	27.5	23.5	29.2
1.8	2.75	2.94	26	22.5	25.9
2.2	3.43	3.67	25.5	21.5	23.3
3.3	5.08	5.44	20.2	16.7	17.8
4.7	7.41	7.93	19.7	18.5	15.8
5.6	8.51	9.11	16.8	14.2	12.3
6.8	11.3	12.09	14.9	14.1	13.4
7.8	12.6	13.48	13.5	8.5	13.4
8.2	13.2	14.12	13.2	7.6	10.3
10	16.60	17.76	12.1	7.8	10.7
12	19.00	20.33	11.4	7.9	9.5
15	24.00	25.68	10.1	7.7	8.8
22	31.30	33.49	9.0	6.3	6.6
33	46.03	49.25	6.9	6.2	5.5
47	77.00	79.60	5.6	4.5	3.9
82	141.10	150.98	3.7	3.7	3.0
100	175.00	187.0	3.1	4.3	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 L₀ to drop approximately 20 %

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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

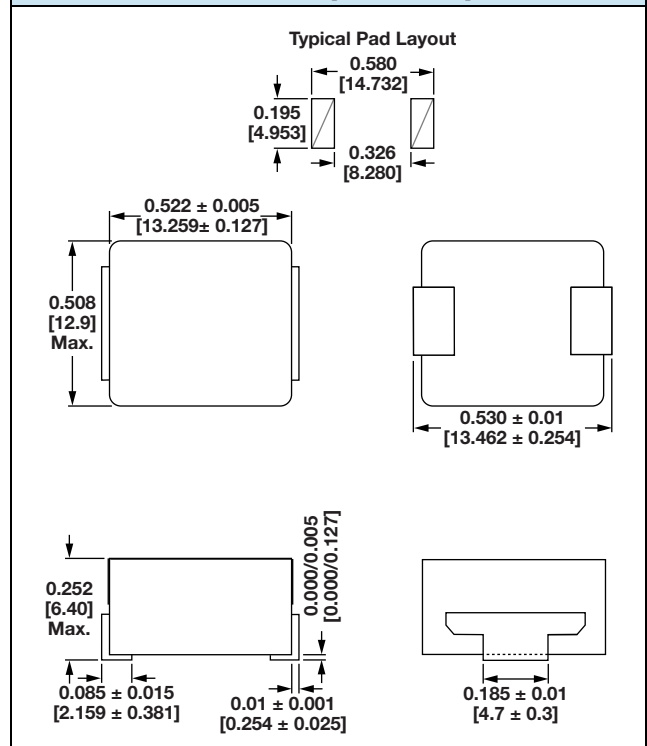


RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- PDA / notebook / desktop / server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for field programmable gate array (FPGA)

DIMENSIONS in inches [millimeters]





DESCRIPTION					
IHLP-5050FD-51	4.7 μ H	$\pm 20\%$	EK	e3	
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD	

GLOBAL PART NUMBER					
I H L P	5 0 5 0 F D	E K	4 R 7	M	5 1
PRODUCT FAMILY		SIZE	PACKAGE CODE	INDUCTANCE	INDUCTANCE TOLERANCE
			EK = tape and reel	4R7 = 4.7 μ H	M = $\pm 20\%$
					SERIES

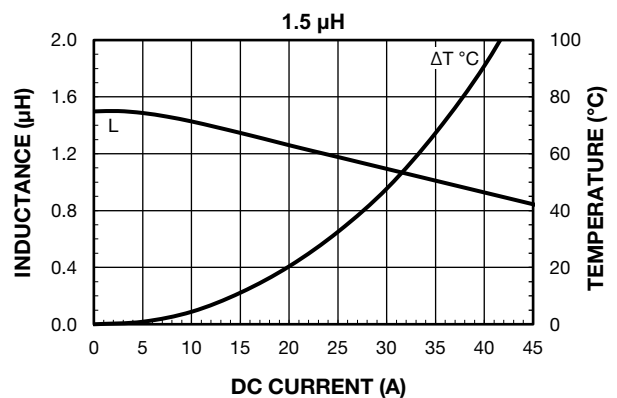
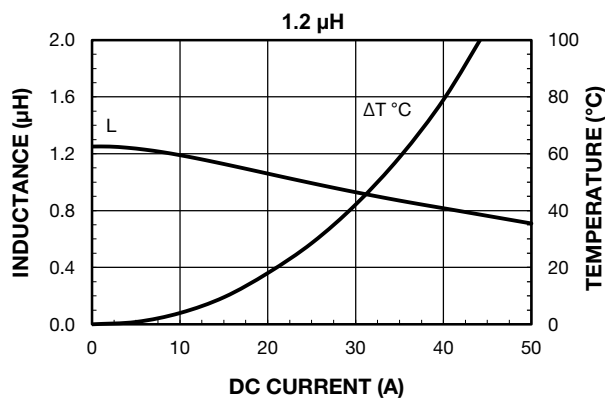
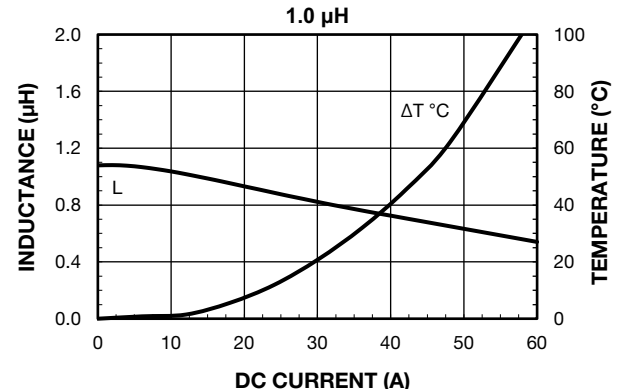
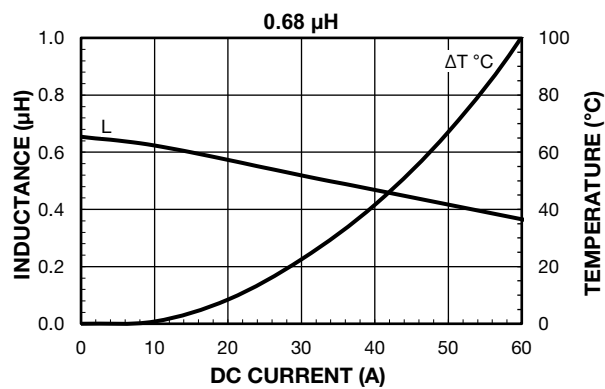
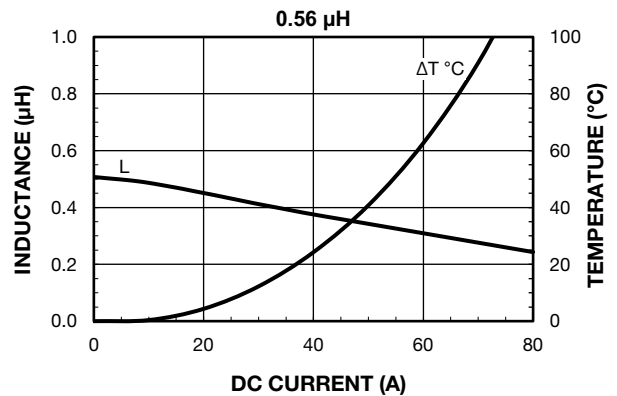
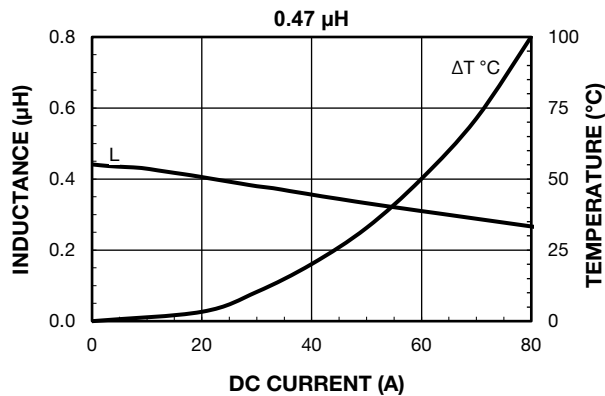
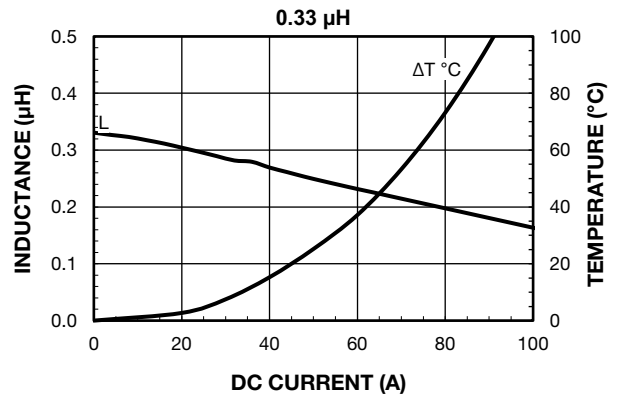
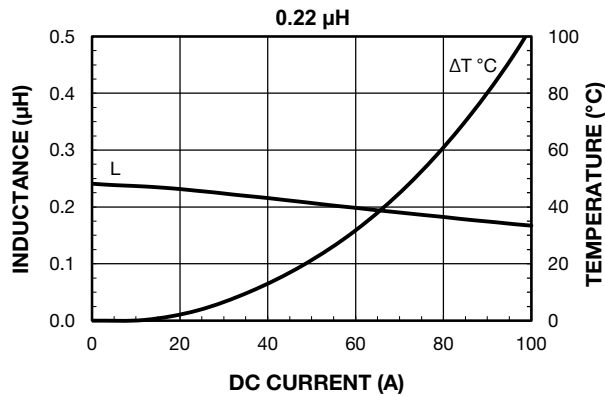
PACKAGE CODE OPTIONS
EK = tape and reel packaging (500 pcs on 13-inch reel)
ER = tape and reel packaging (250 pcs on 13-inch reel)

Note

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

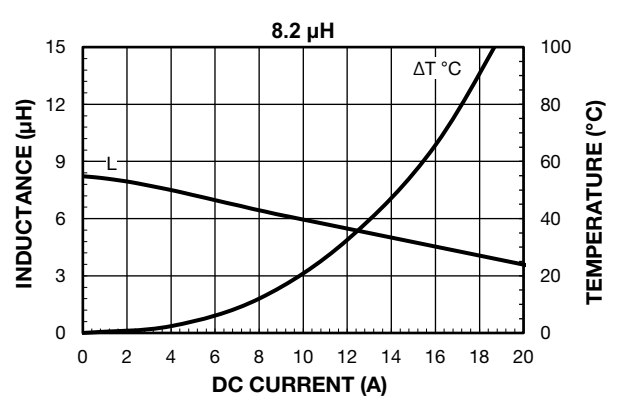
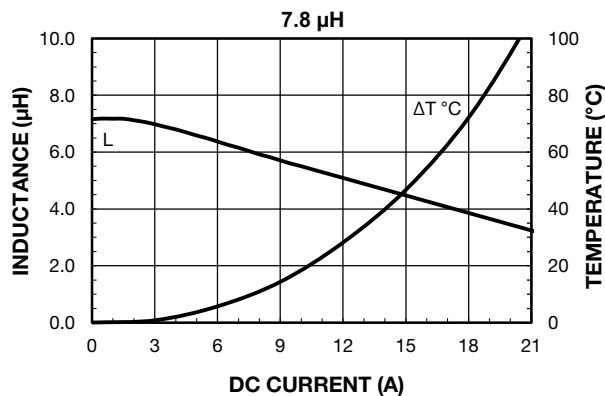
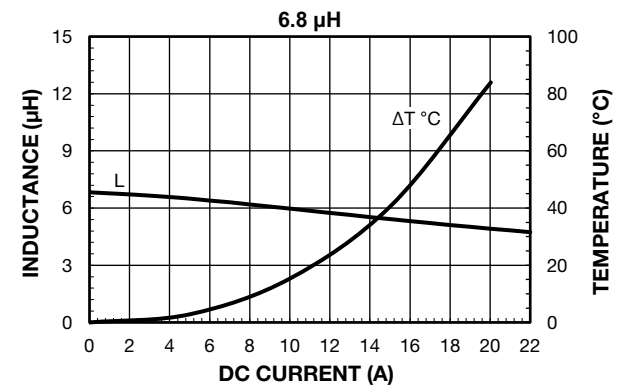
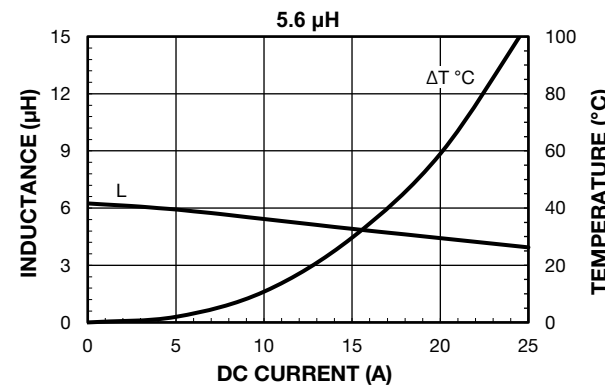
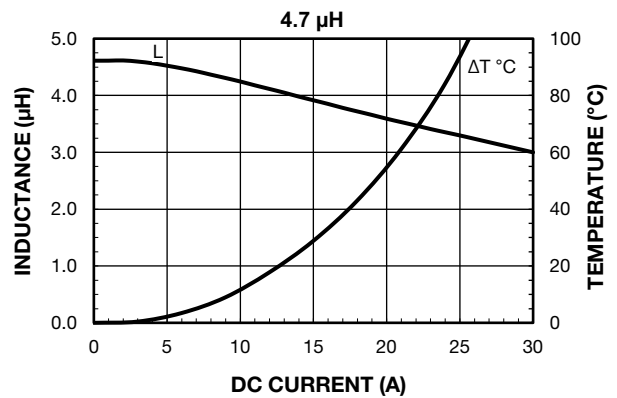
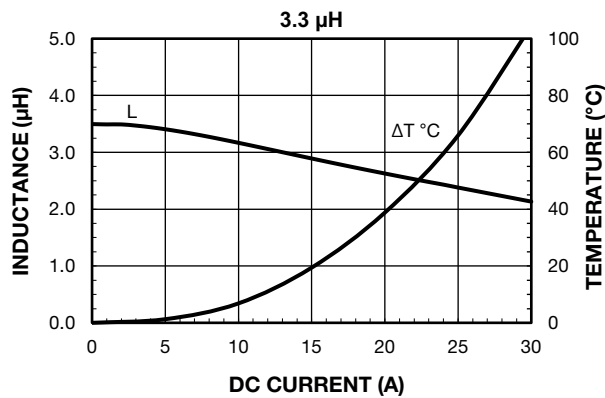
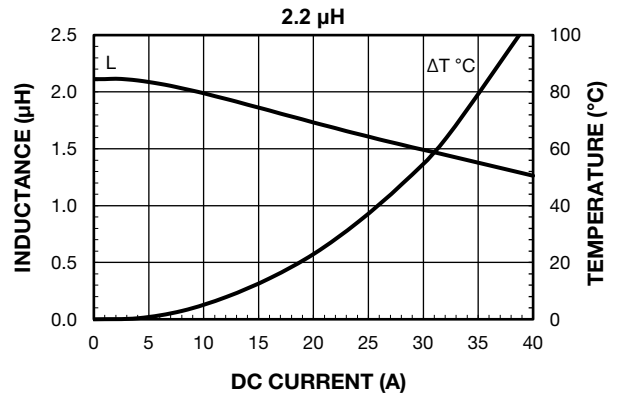
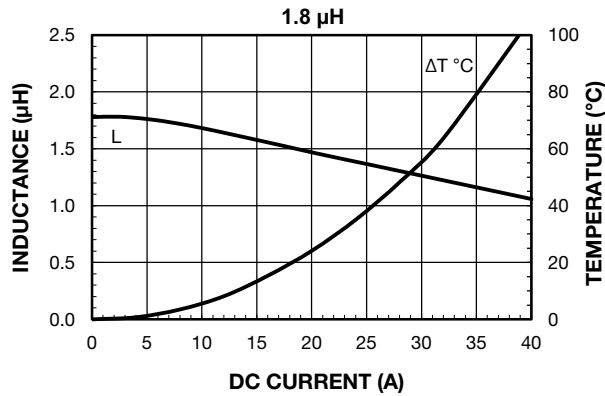


PERFORMANCE GRAPHS



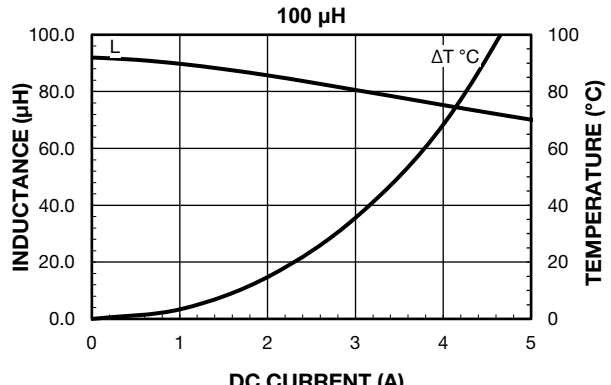
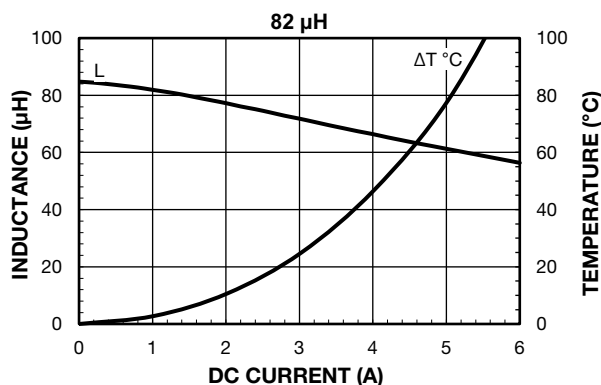
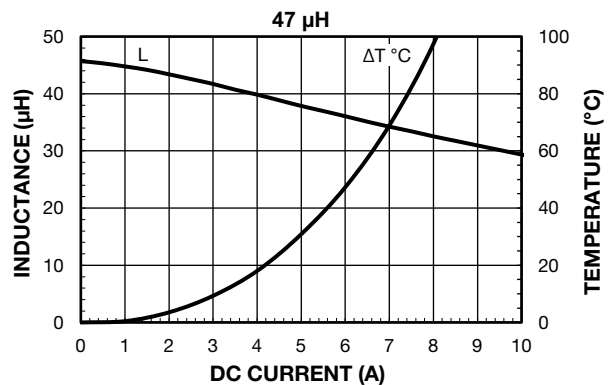
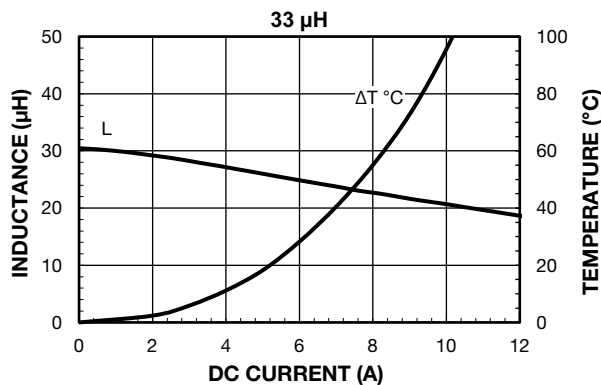
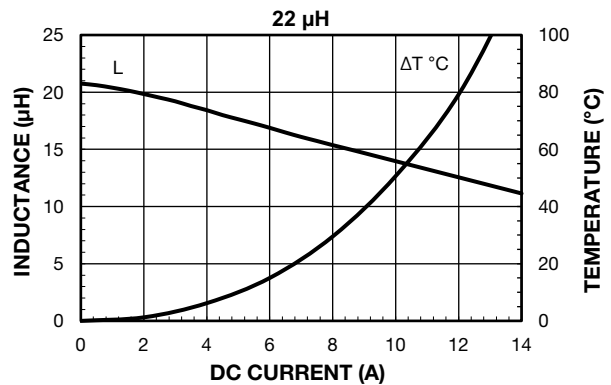
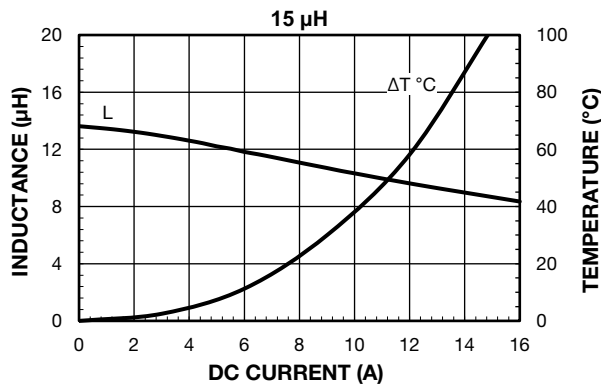
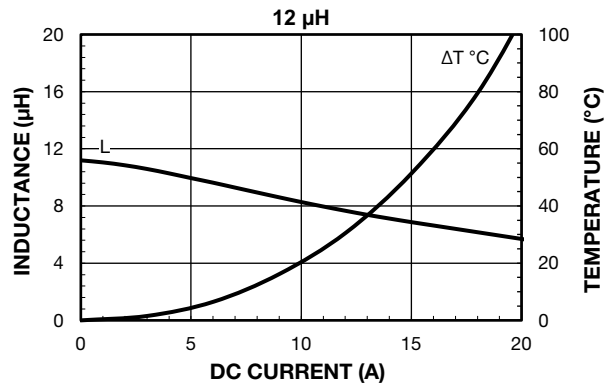
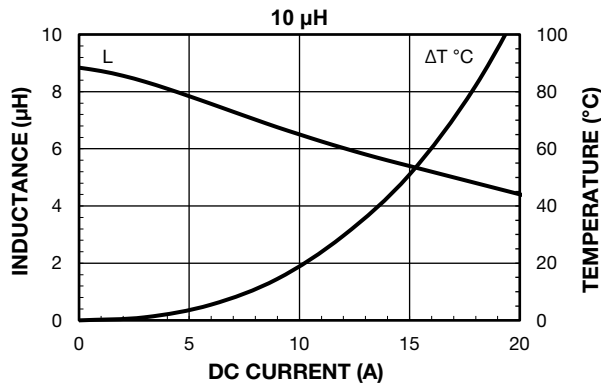


PERFORMANCE GRAPHS

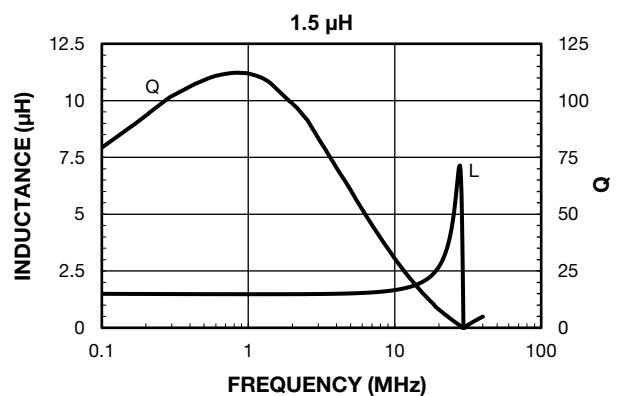
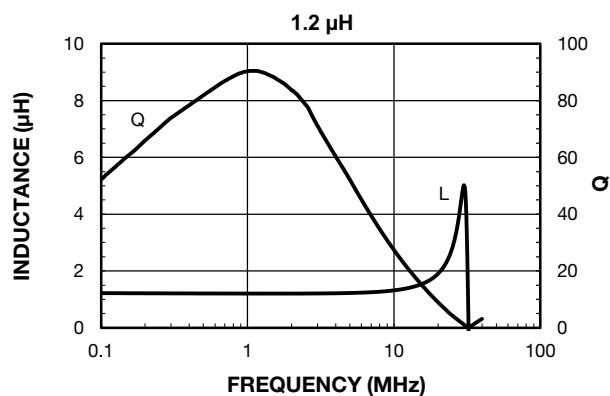
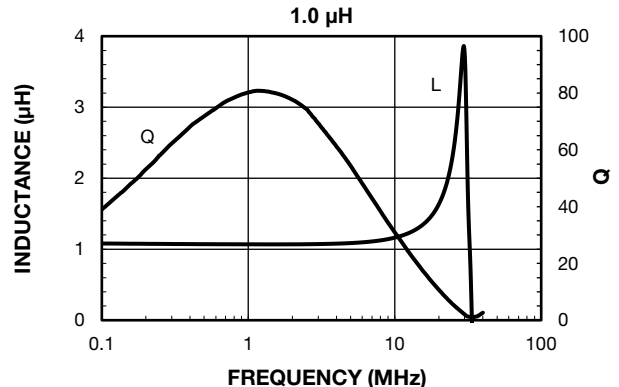
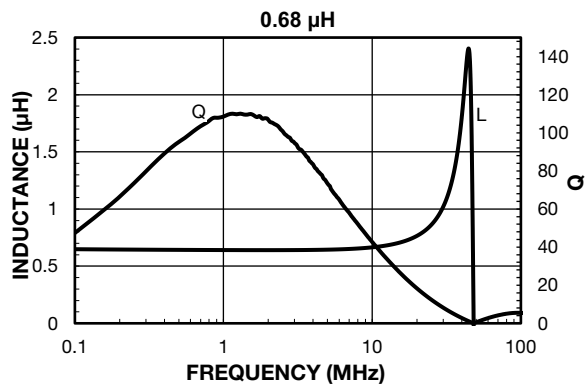
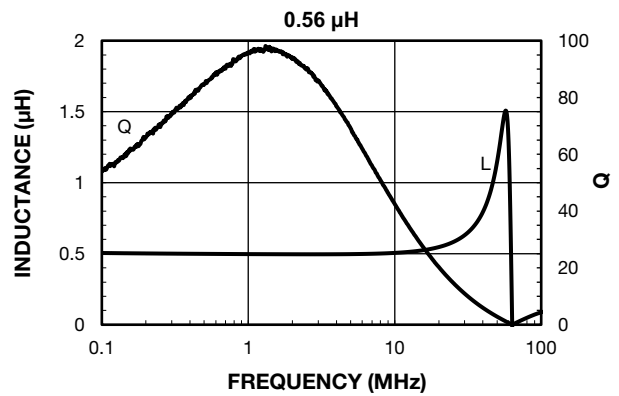
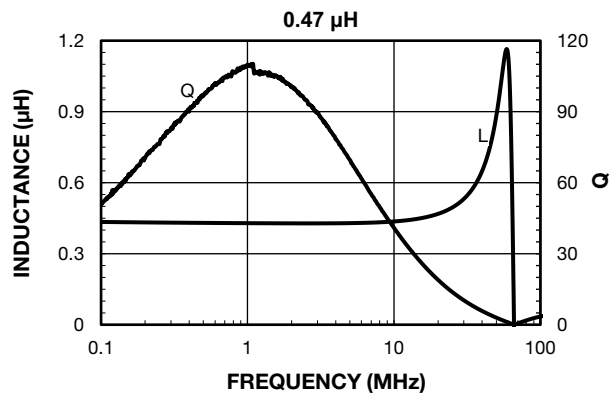
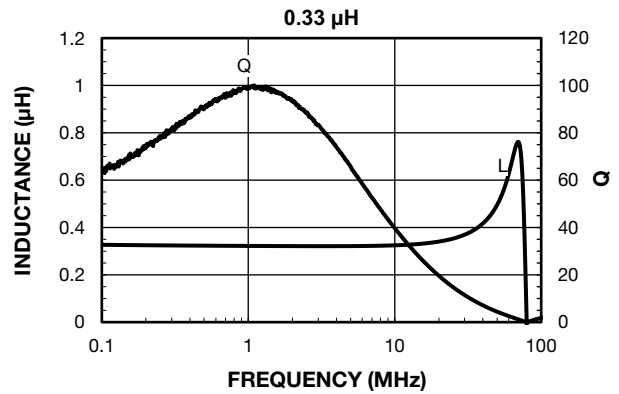
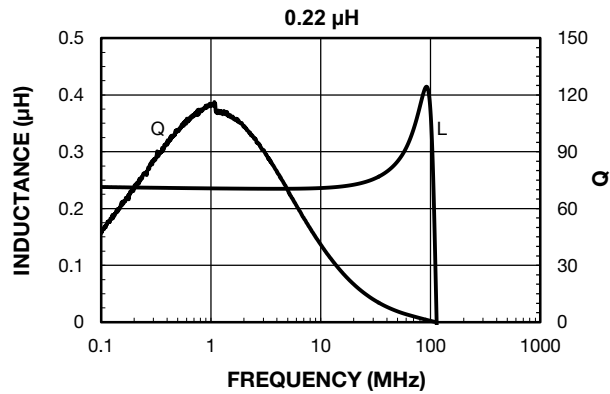




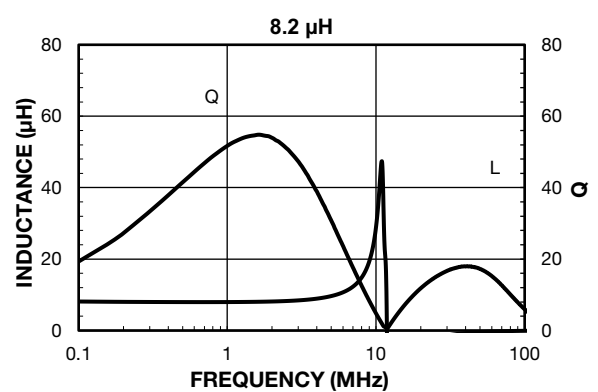
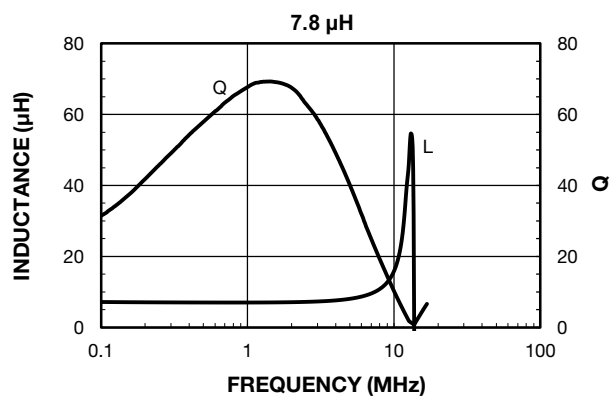
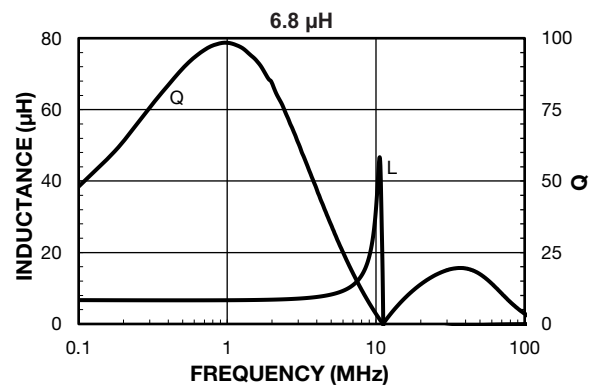
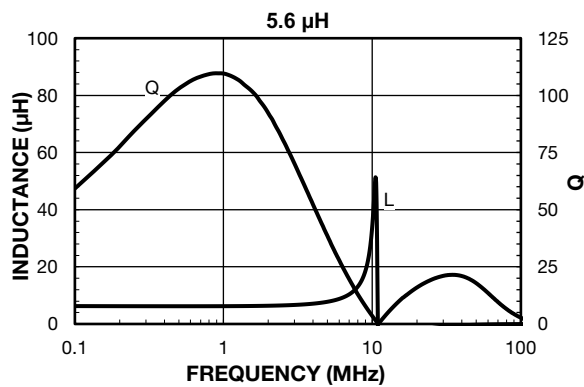
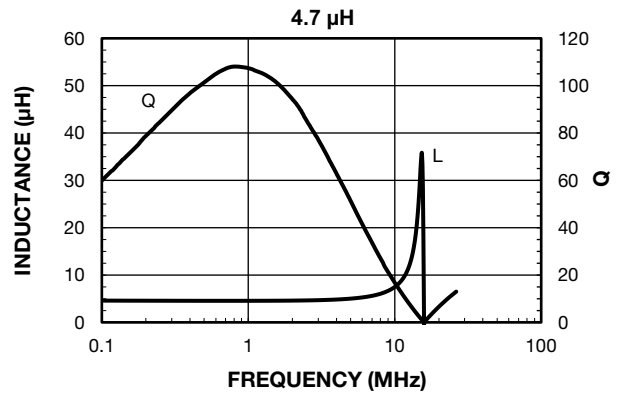
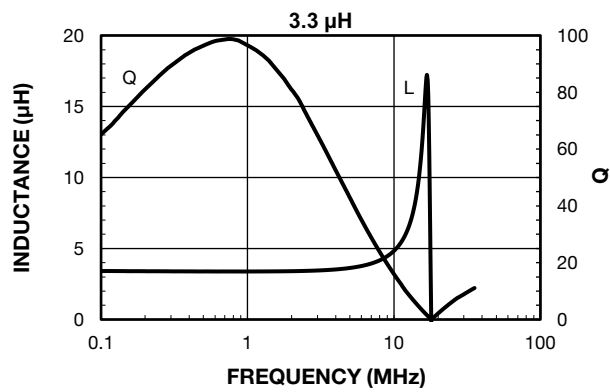
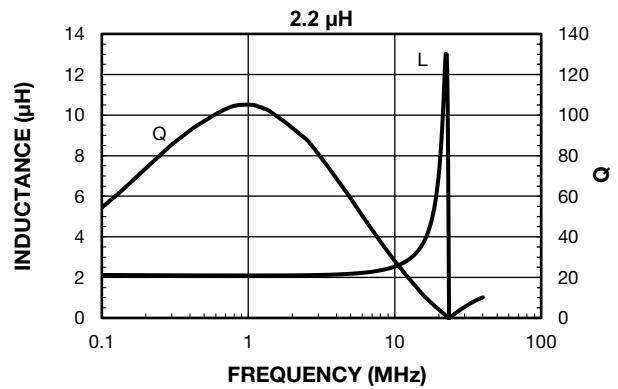
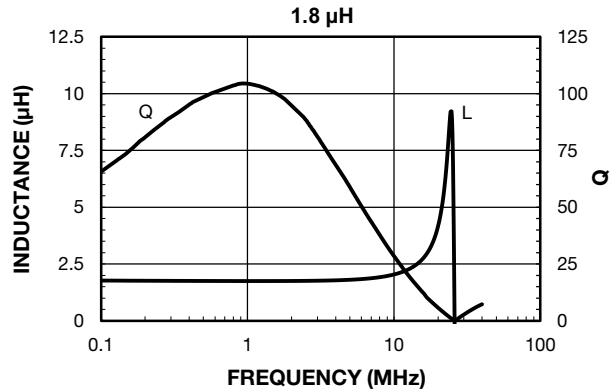
PERFORMANCE GRAPHS



PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY

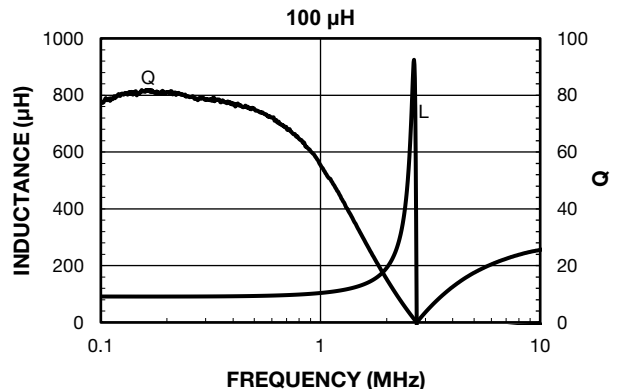
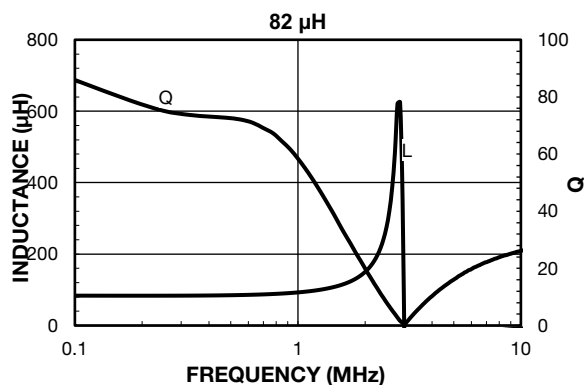
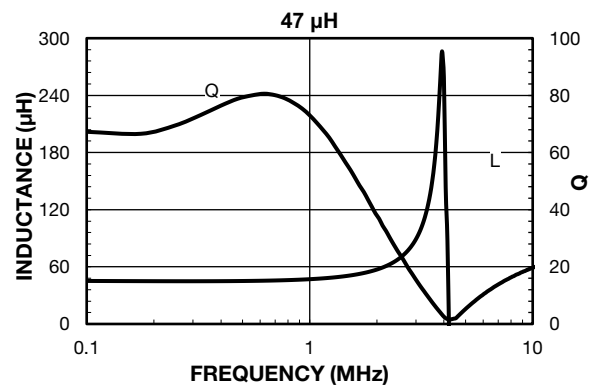
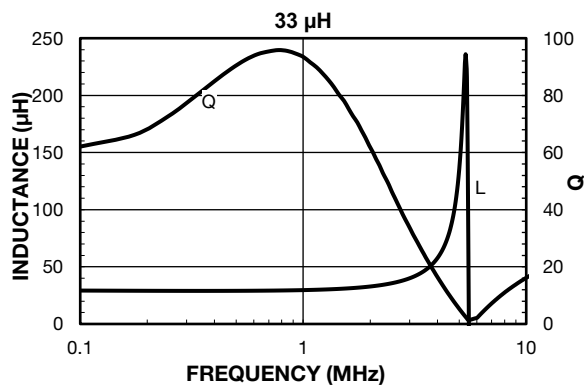
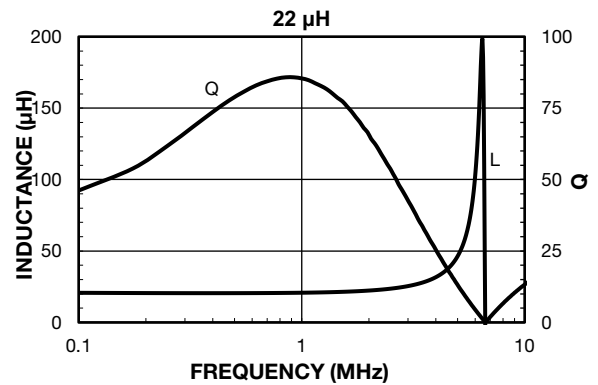
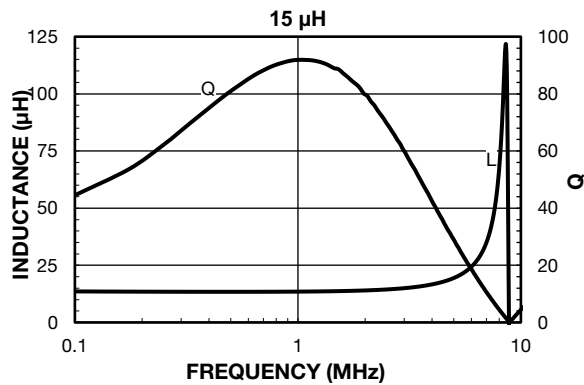
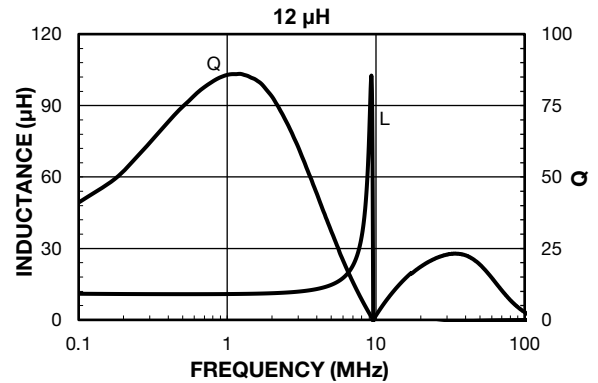
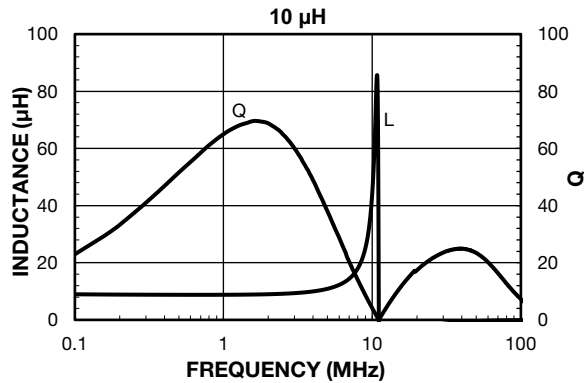


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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