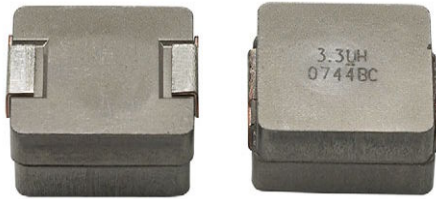


## Low Profile, High Current IHLP® Inductors



**DESIGN SUPPORT TOOLS** click logo to get started



STANDARD ELECTRICAL SPECIFICATIONS					
$L_0$ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A ( $\mu$ H)	DCR TYP. 25 °C (m $\Omega$ )	DCR MAX. 25 °C (m $\Omega$ )	HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)
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	17.4	18.5	15.8
5.6	8.51	9.11	13.8	13.8	12.3
6.8	11.3	12.09	14.2	8.7	13.4
7.8	12.6	13.48	13.5	8.5	13.6
8.2	13.2	14.12	13.2	7.6	10.3
10	16.60	17.76	10.9	7.2	10.7
12	19.00	20.33	10.6	6.9	7.59
15	24.00	25.68	8.7	6.8	8.30
22	31.30	33.49	8.3	5.5	6.43

**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.
  - Maximum recommended operating voltage (across inductor) = 75 V
- (1) DC current (A) that will cause an approximate  $\Delta T$  of 40 °C  
 (2) DC current (A) that will cause  $L_0$  to drop approximately 20 %

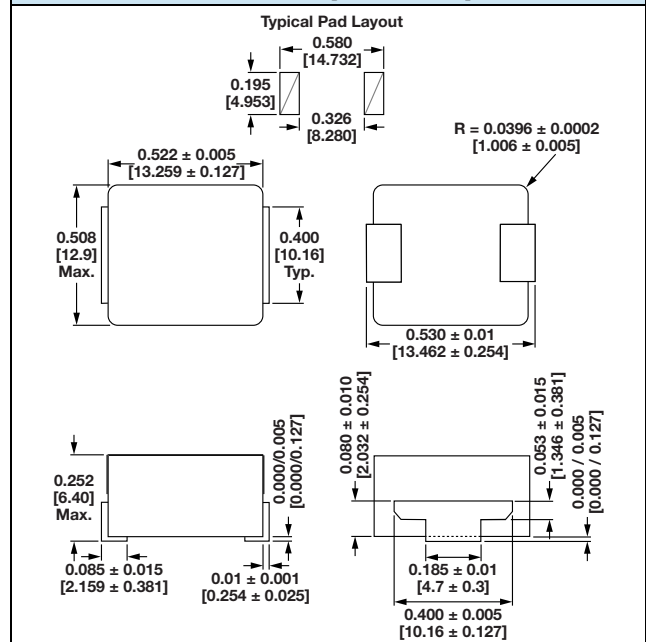
**FEATURES**

- 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/ $\mu$ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- IHLP design. PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)
- Tin / lead SnPb plated (not dipped) terminals

**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-5L	4.7 $\mu$ H	± 20 %	RZ
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE

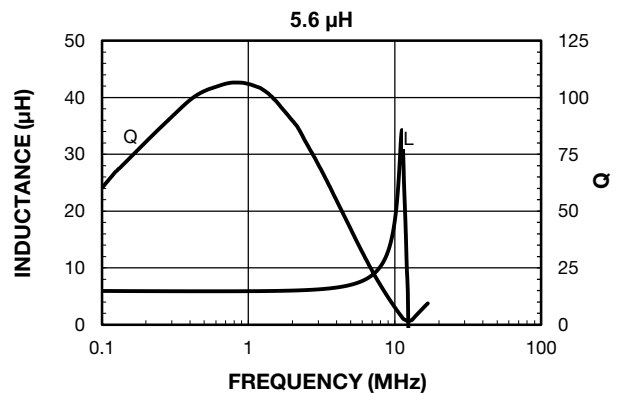
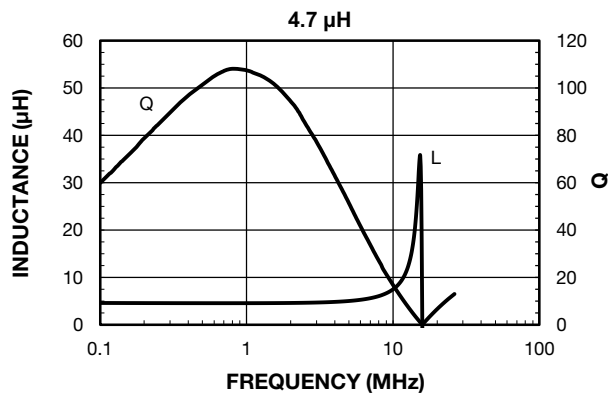
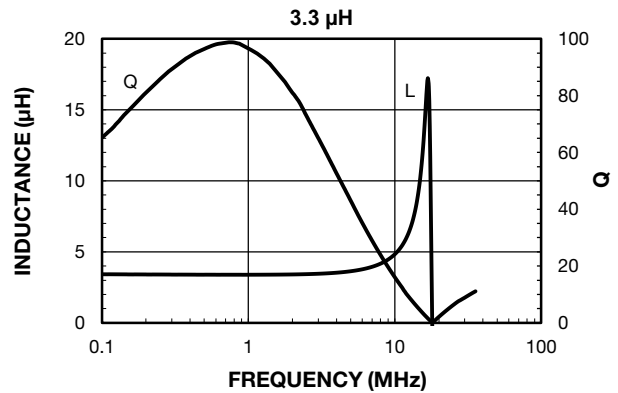
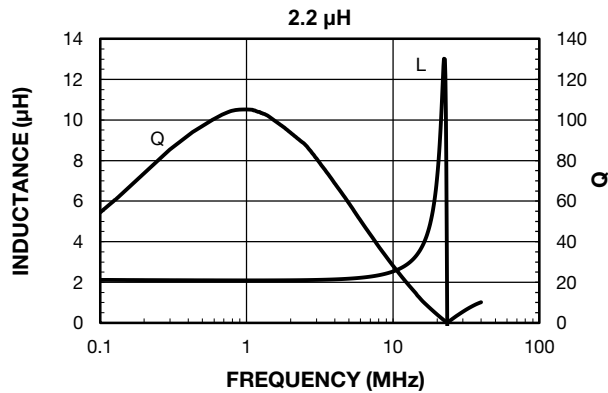
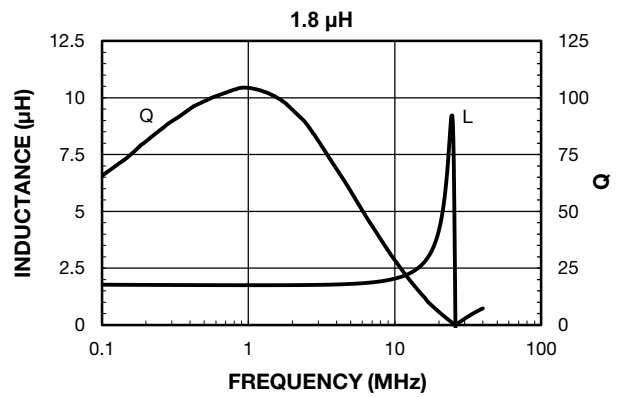
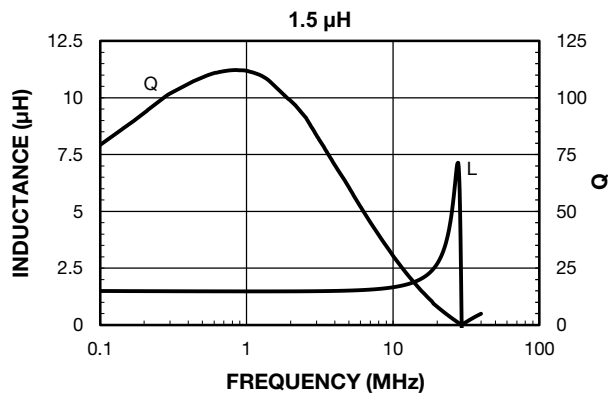
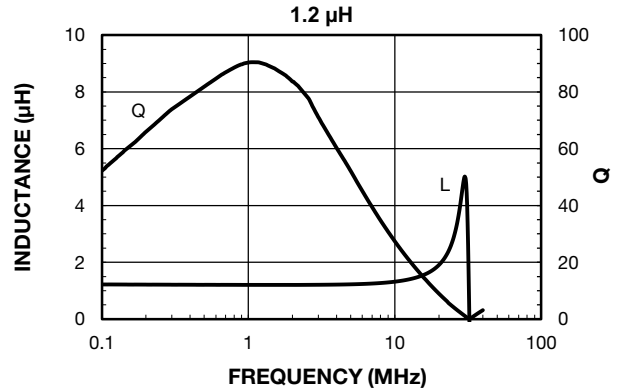
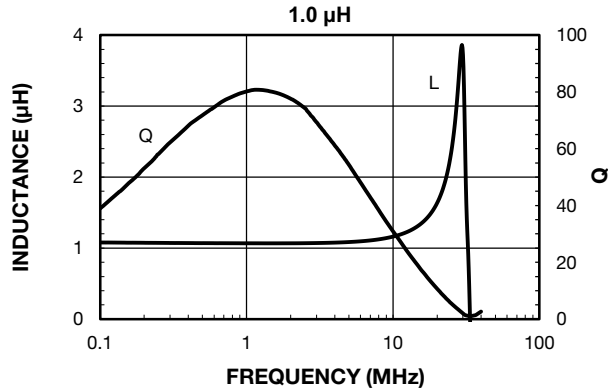
GLOBAL PART NUMBER																	
I	H	L	P	5	0	5	0	F	D	R	Z	4	R	7	M	5	L
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES			

PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)

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

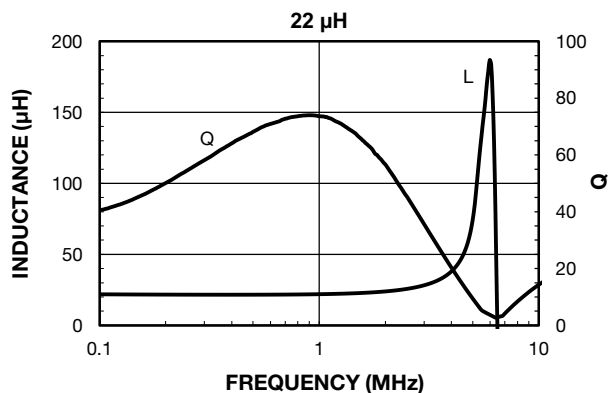
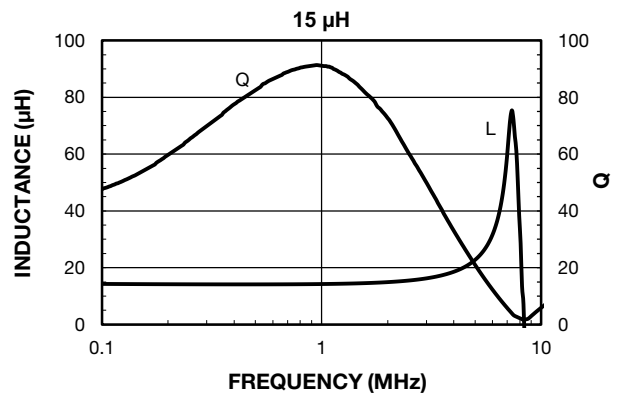
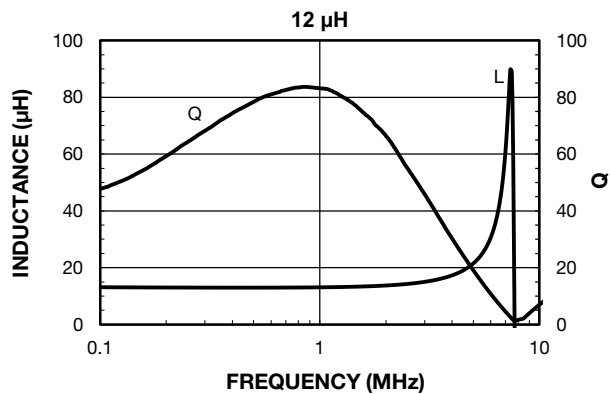
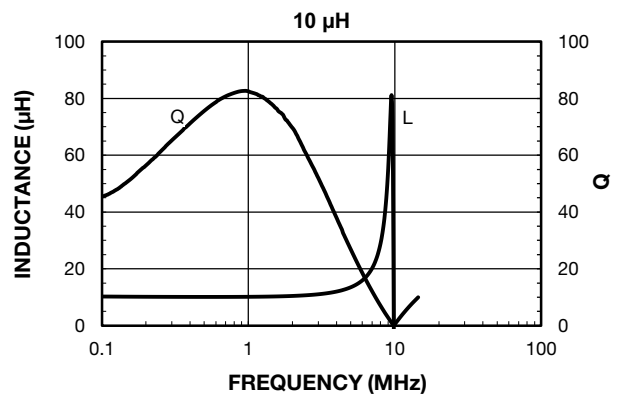
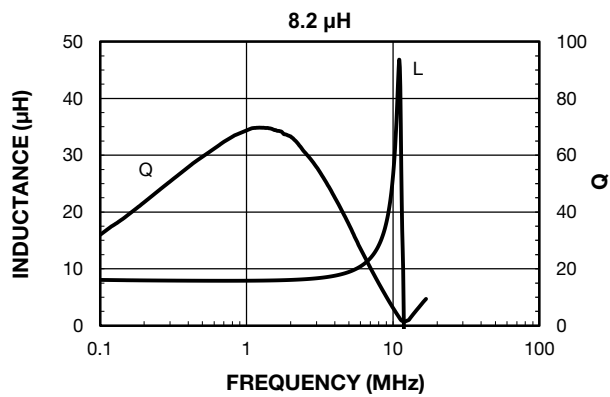
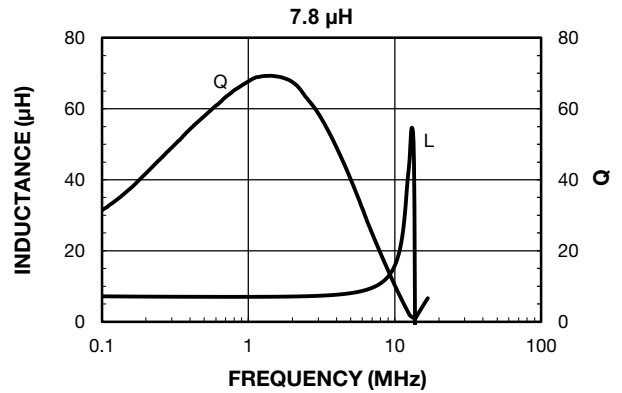
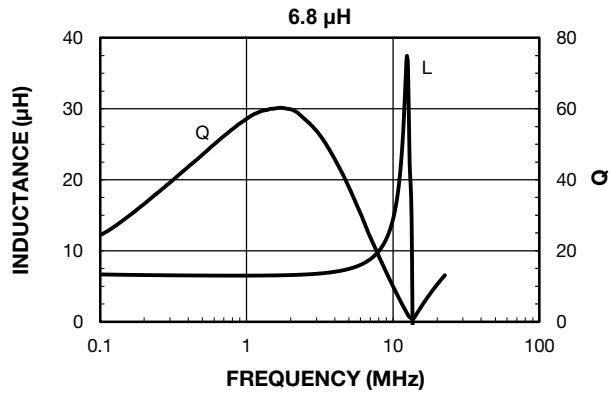


PERFORMANCE GRAPHS

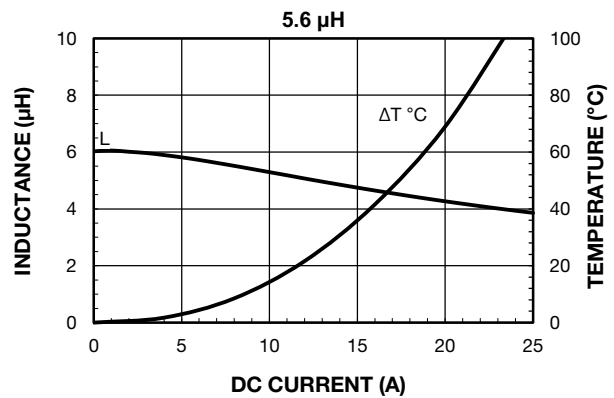
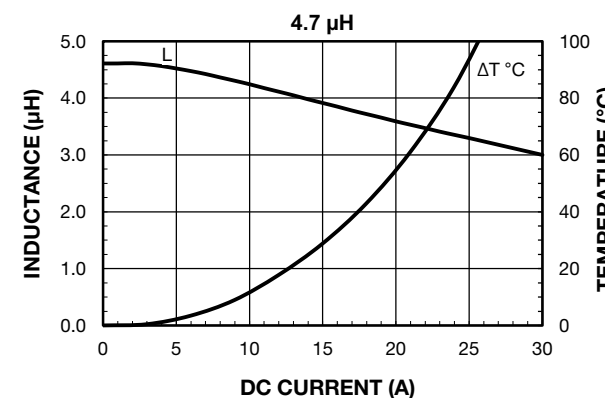
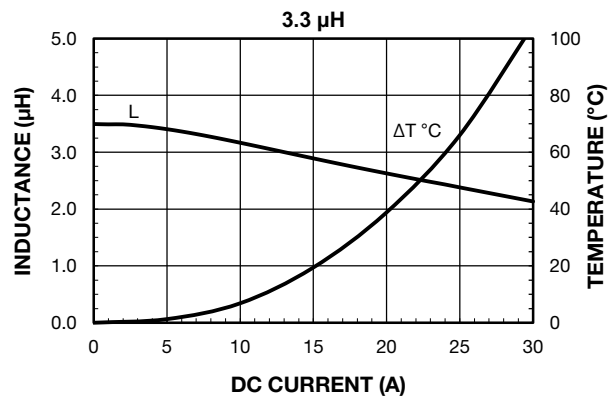
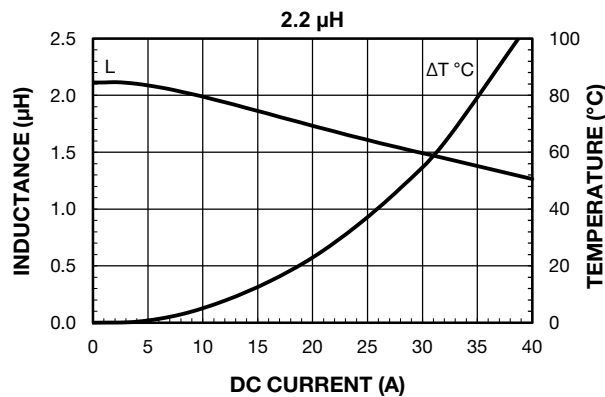
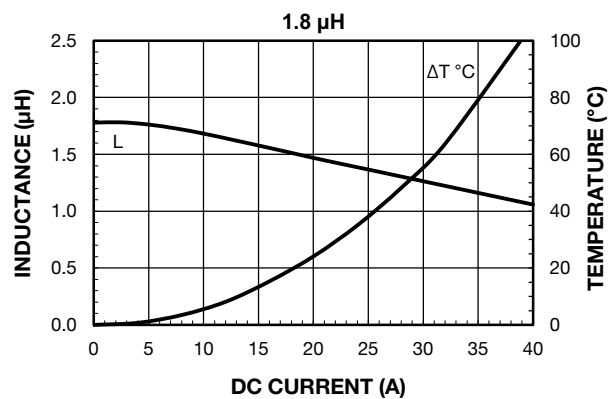
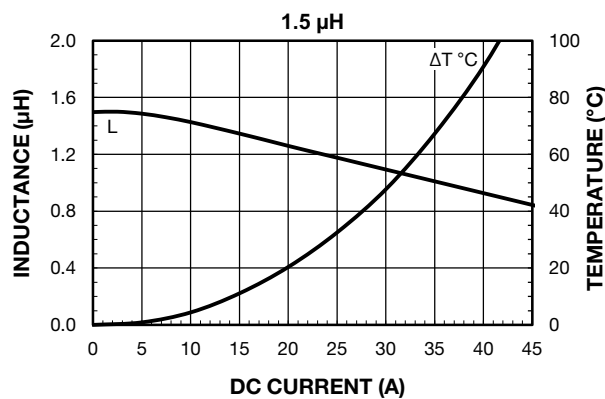
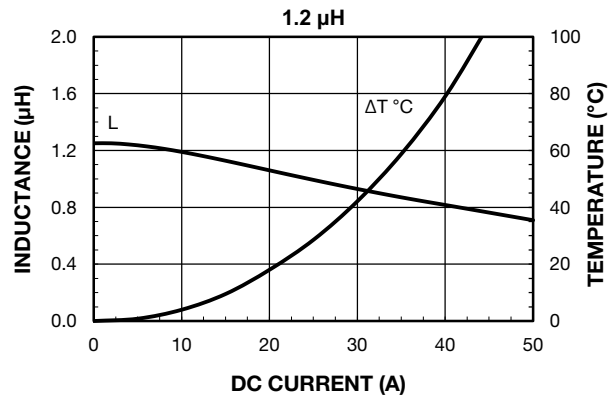
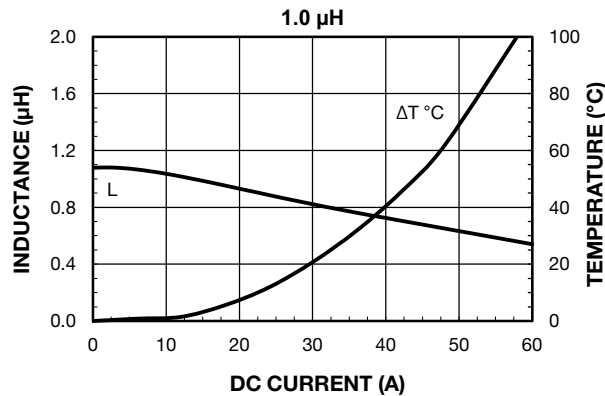




PERFORMANCE GRAPHS

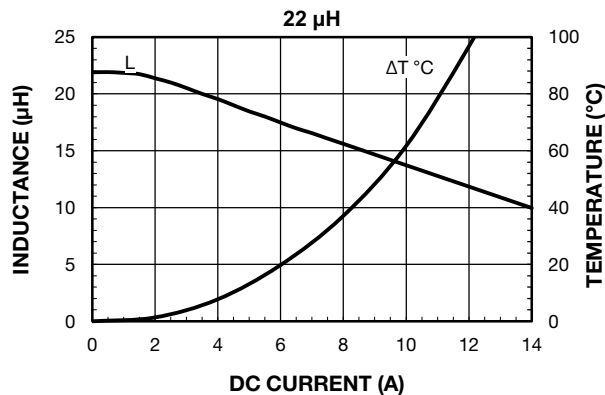
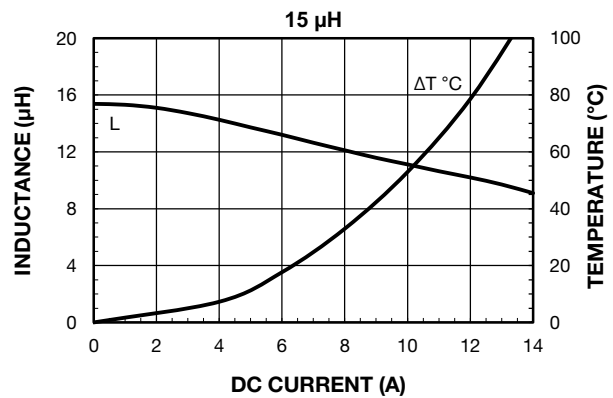
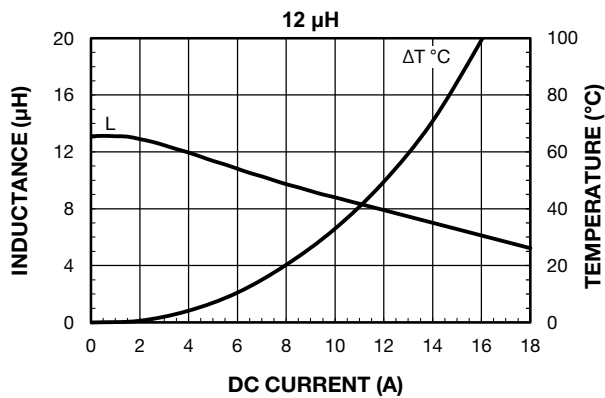
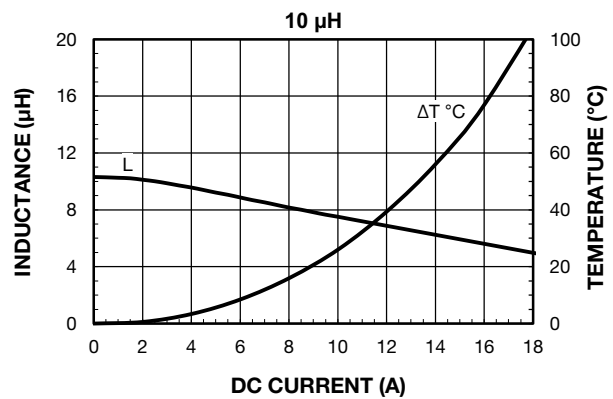
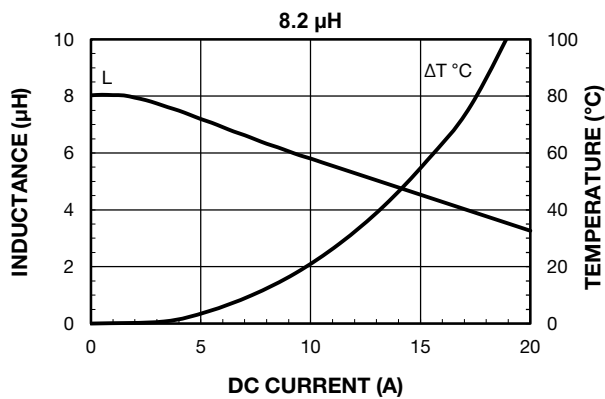
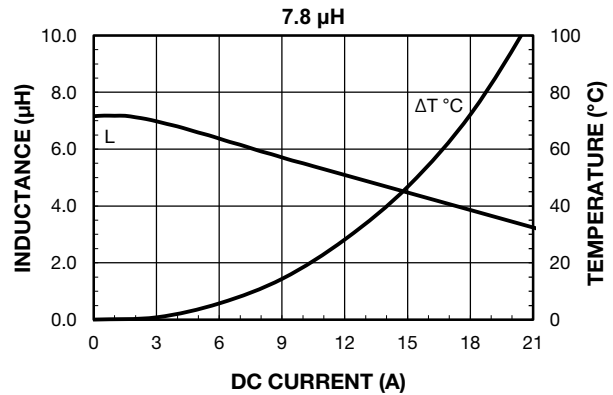
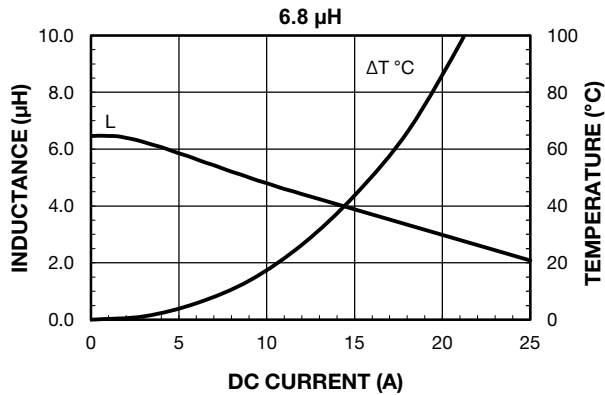


**PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY**





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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