

IHLP® Automotive Inductors, Low DCR Series


 AUTOMOTIVE
GRADE

RoHS
COMPLIANT

FEATURES

- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up to SRF (see “Standard Electrical Specifications” table)
- Operating temperature up to 125 °C
- 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
- 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)
0.22	1.51	1.62	36.0	24.0	151
0.33	2.22	2.38	27.0	18.0	101
0.47	2.54	2.72	24.0	18.0	69
0.68	3.73	3.99	20.0	15.2	59
0.82	4.55	4.87	18.5	15.0	53
1.0	6.07	6.49	16.0	14.8	51
1.5	8.29	9.94	12.5	11.3	35
2.2	13.70	14.70	10.4	10.4	30
4.7	26.70	28.60	7.6	5.4	21
6.8	35.30	37.80	6.5	5.0	17
8.2	43.60	46.70	5.9	4.2	16
10	51.50	55.10	5.3	3.8	12
15	79.70	85.30	4.3	3.8	11
22	123.0	132.0	3.6	2.8	7.7

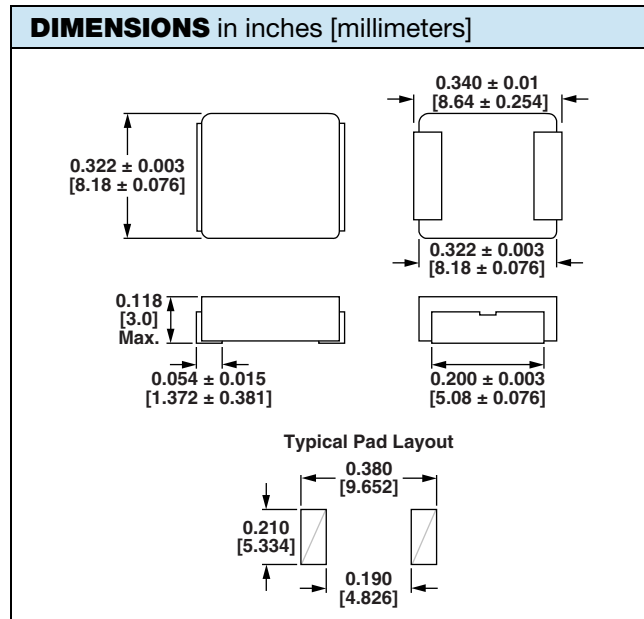
Notes

- All test data is referenced to 25 °C ambient
 - Operating temperature range -55 °C to +125 °C
 - The part temperature (ambient + temp. rise) should not exceed 125 °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) = 50 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					
IHLP3232CZ-1A	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	3 2 3 2 C Z	E K	4 R 7	M	1 A
PRODUCT FAMILY		SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE
			EK = tape and reel	4R7 = 4.7 μ H	M = $\pm 20 \%$ N = $\pm 30 \%$
					SERIES

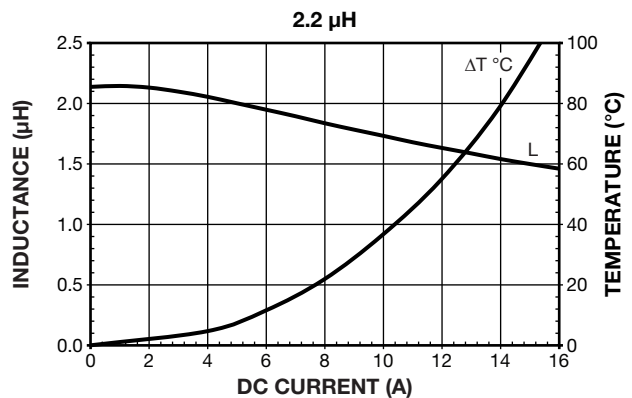
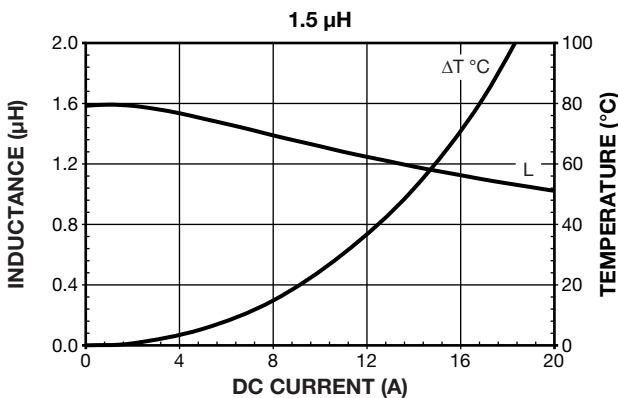
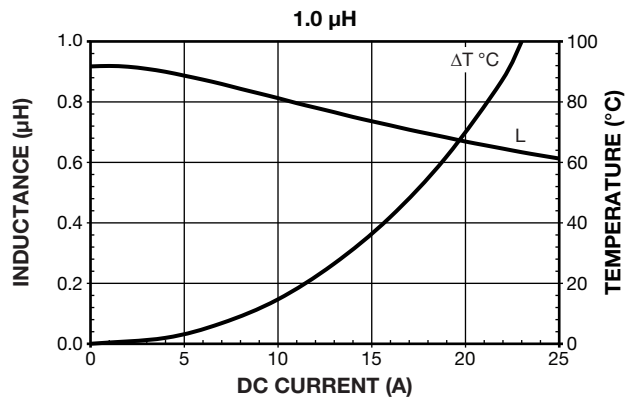
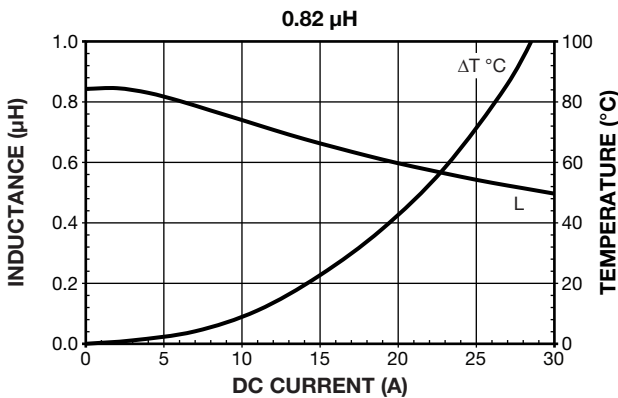
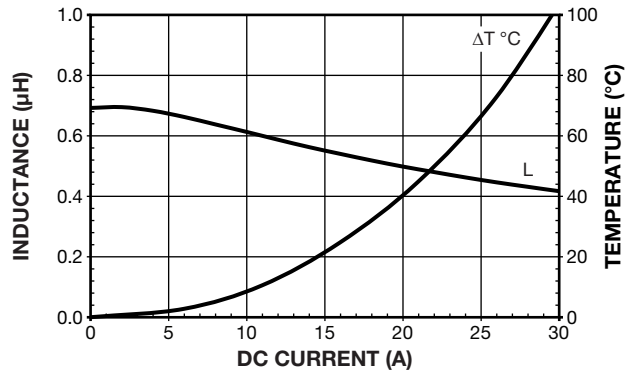
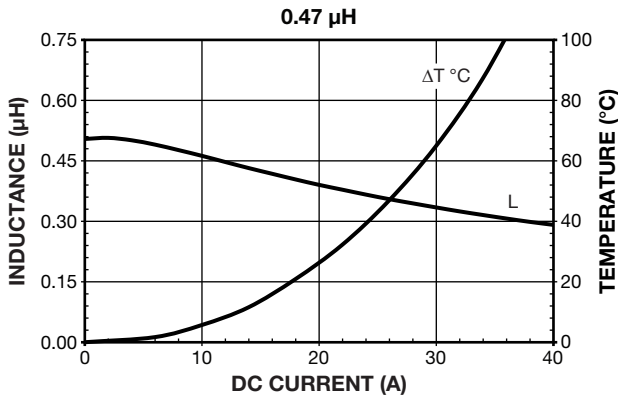
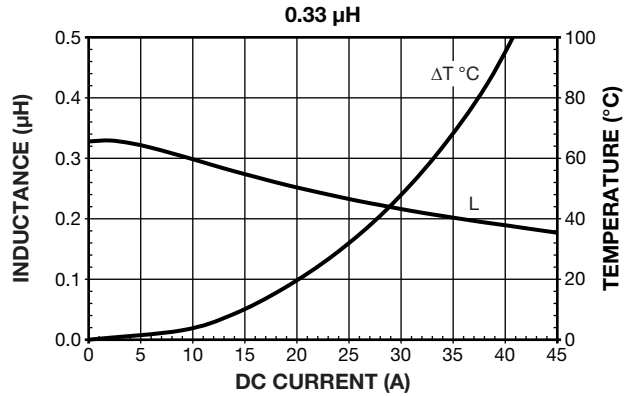
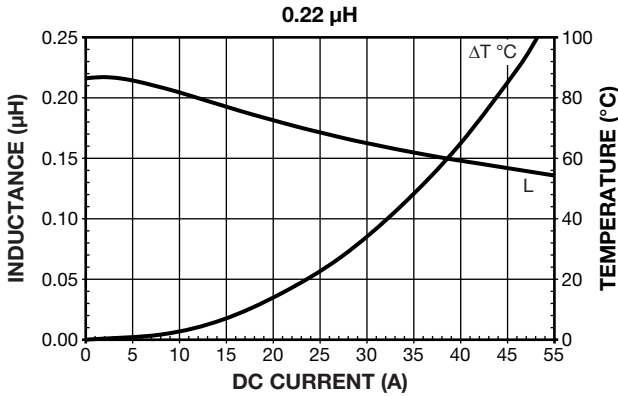
PACKAGE CODE OPTIONS
EK = tape and reel packaging (1500 pcs on 13-inch reel)
ER = tape and reel packaging (1000 pcs on 13-inch reel)

Note

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

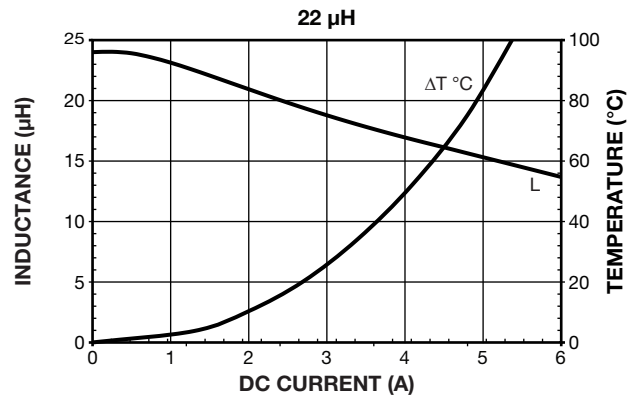
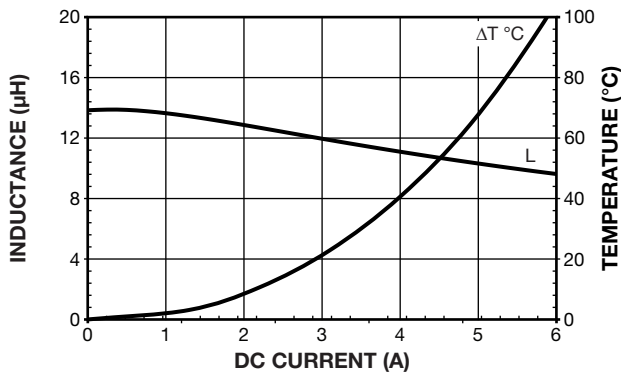
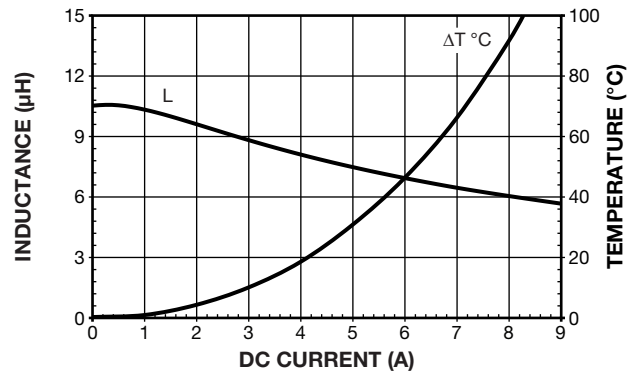
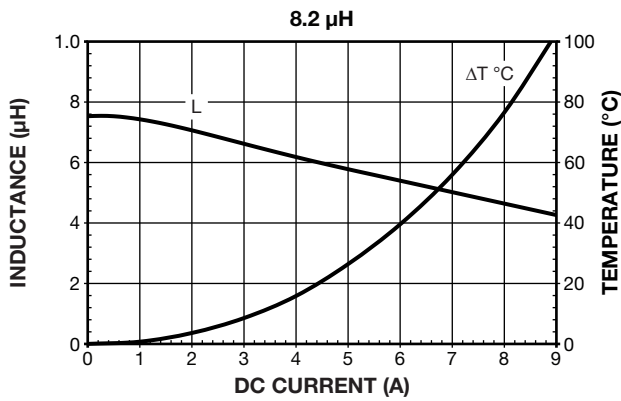
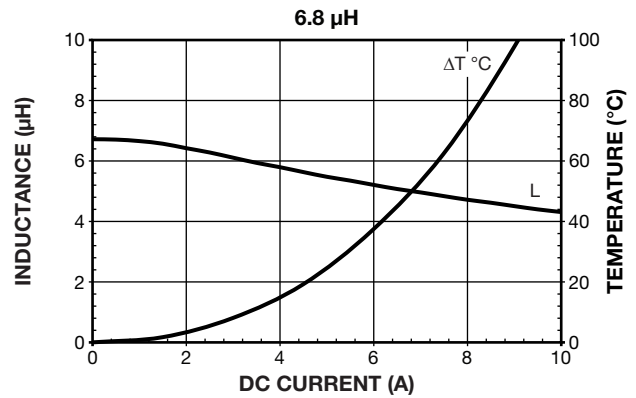
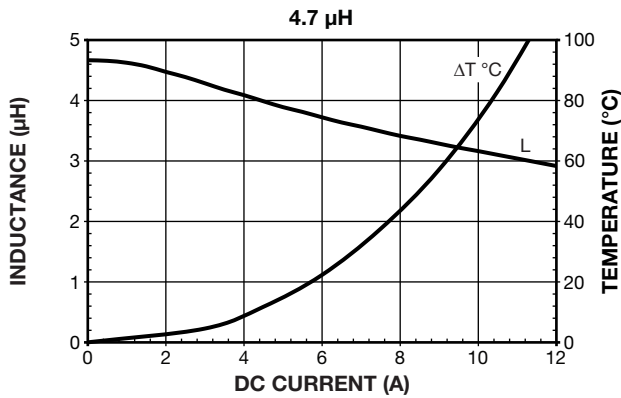


PERFORMANCE GRAPHS



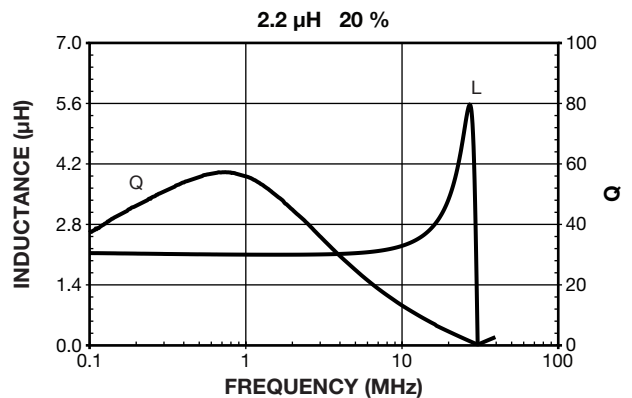
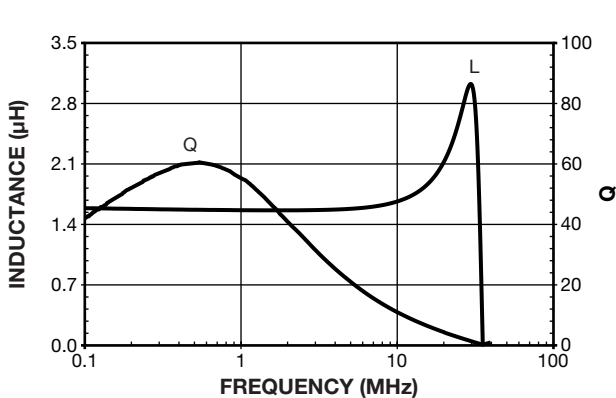
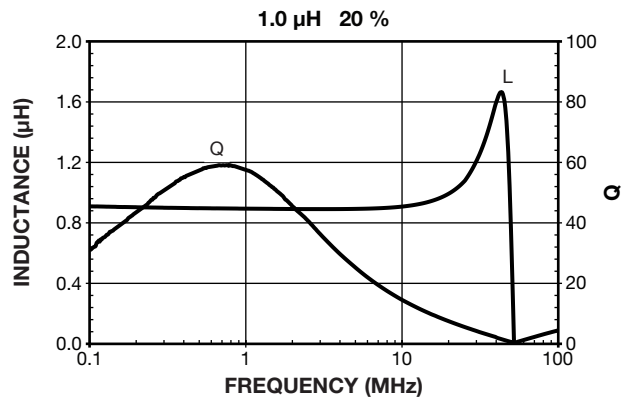
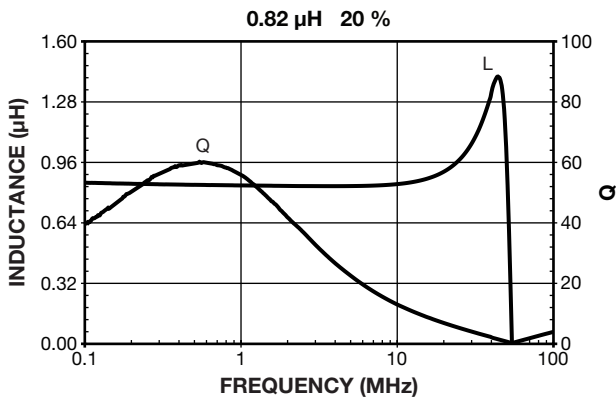
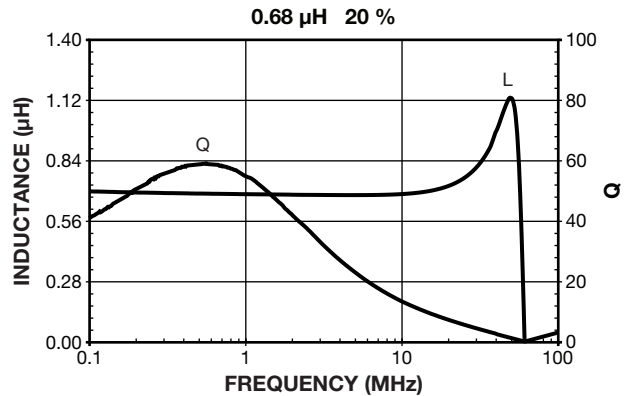
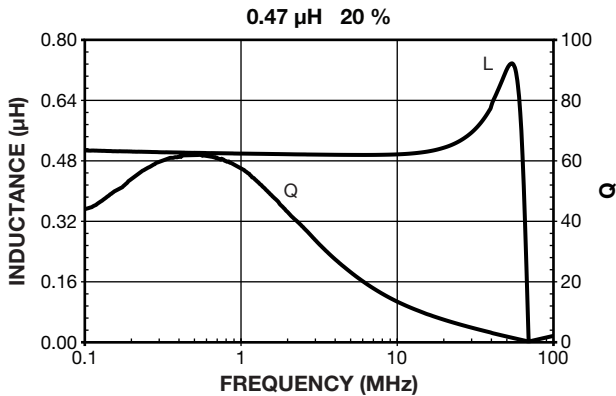
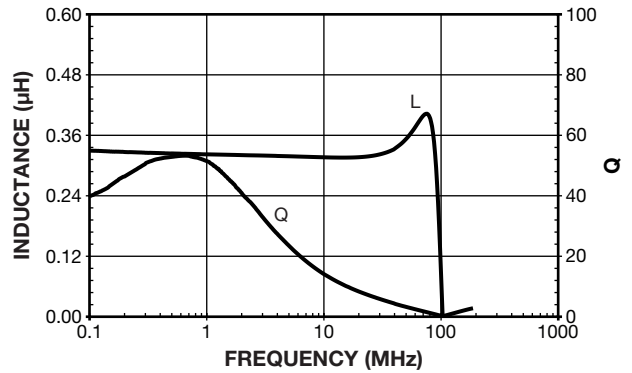
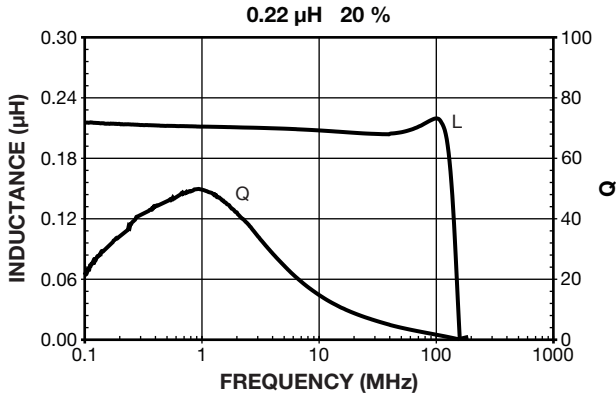


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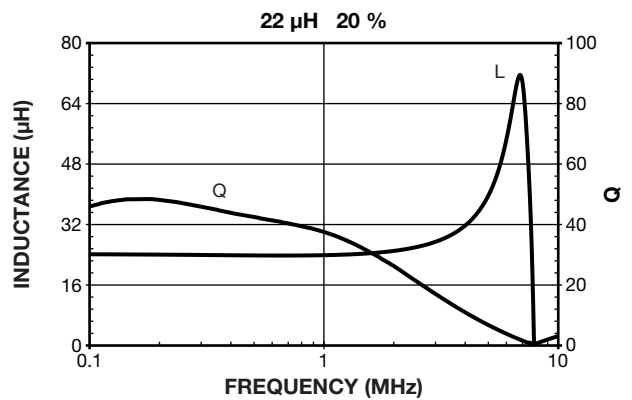
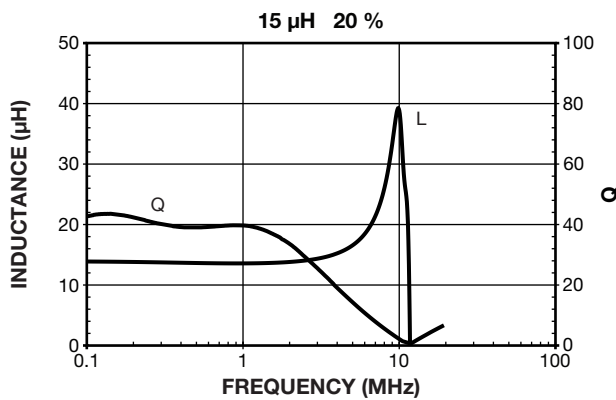
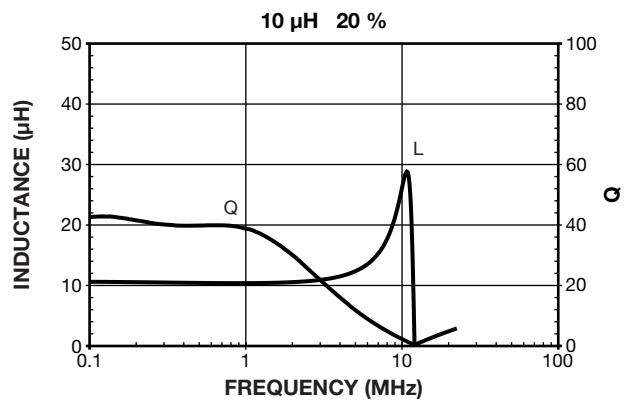
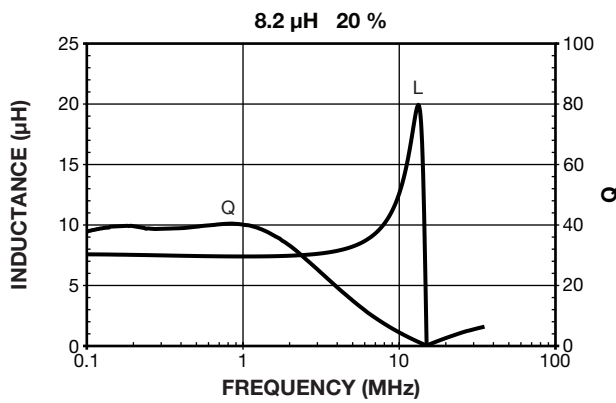
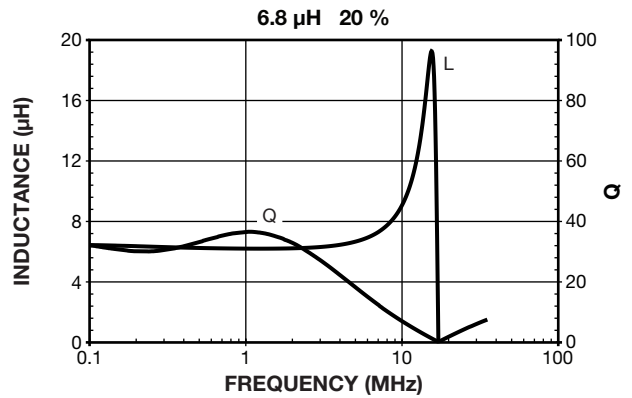
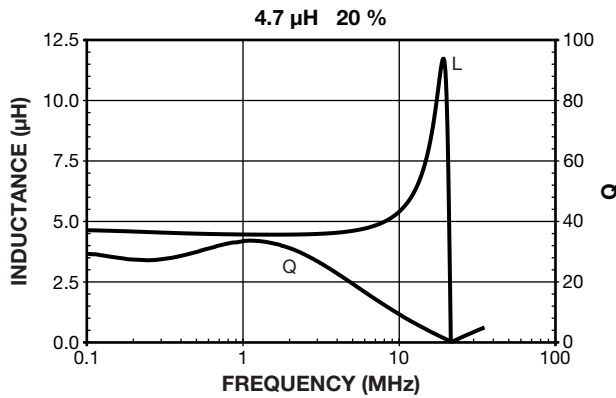


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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