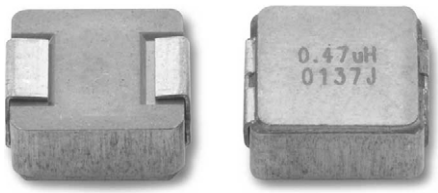
IHLP® Commercial Inductors, High Saturation Series, 5 % DCR Tolerance



LINKS TO ADDITIONAL RESOURCES

3D Models Design Tools

FEATURES

- Shielded construction
- Excellent DC/DC energy storage up to 5 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specifications" table)
- 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

Pb-free
RoHS COMPLIANT

APPLICATIONS

- Tolerance DCR for current sense applications
- Improved current balance in phased power supplies
- Improved thermal management
- PDA / notebook / desktop / server and battery powered devices
- High current, low profile POL converters
- DC/DC converters in distributed power systems
- DC/DC converter for field programmable gate array (FPGA)

STANDARD ELECTRICAL SPECIFICATIONS

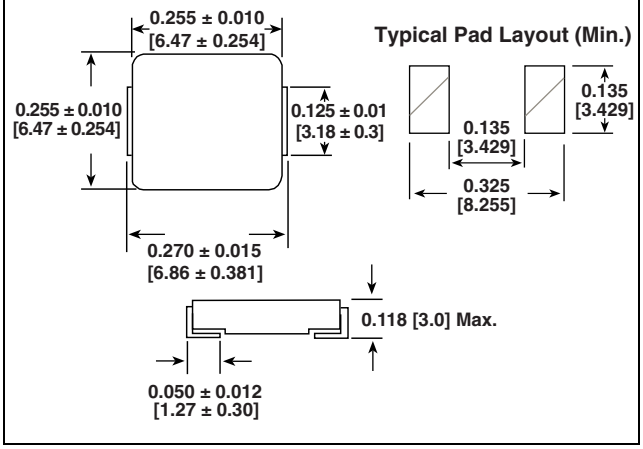
L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR ± 5 % AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A) (2)	SRF TYP. (MHz)
0.10	1.35	32.5	60	400
0.15	1.85	26	52	180
0.20	2.34	24	41	150
0.33	3.20	20	30	100
0.47	3.86	17.5	26	75
0.68	5.20	15.5	25	62
0.82	7.41	13	24	60
1.0	8.00	11	22	55
1.5	14.50	9	18	40
2.2	17.73	8	14	38
3.3	28.21	6	13.5	30
4.7	37.11	5.5	10	25
8.2	61.47	4	7.5	17
10	88.74	3	7.0	16

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) = 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 %

DIMENSIONS in inches [millimeters]



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DESCRIPTION

IHLP-2525CZ-07	1.0 µH	± 20 %	EK	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I H L P	2 5 2 5 C Z	E K	1 R 0	M	0 7
PRODUCT FAMILY	SIZE	PACKAGE CODE	IMPEDANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		EK = tape and reel	**1R0** = 1.0 µH	**M** = ± 20 %	

PACKAGE CODE OPTIONS

EK = tape and reel packaging (2500 pcs on 13-inch reel)

ER = tape and reel packaging (2000 pcs on 13-inch reel)

Note

- For additional packaging details see "Packaging Methods"

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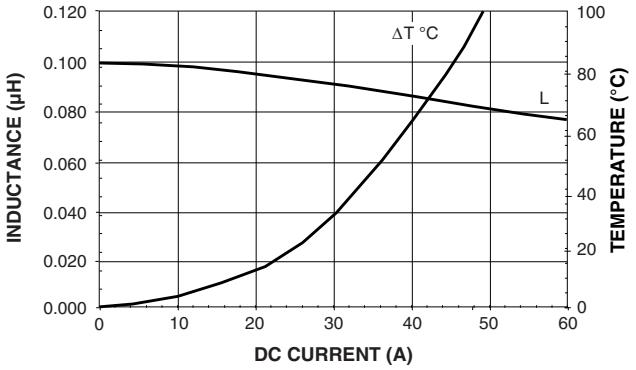
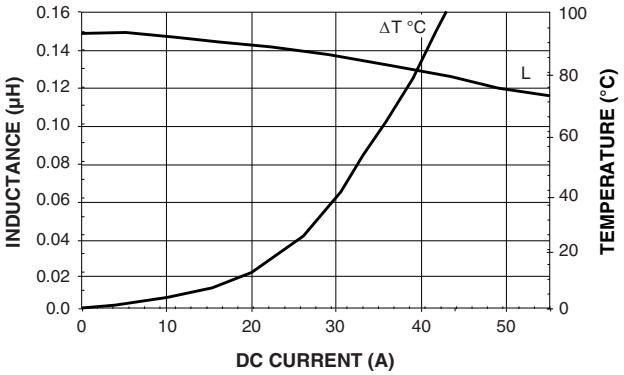
PERFORMANCE GRAPHS

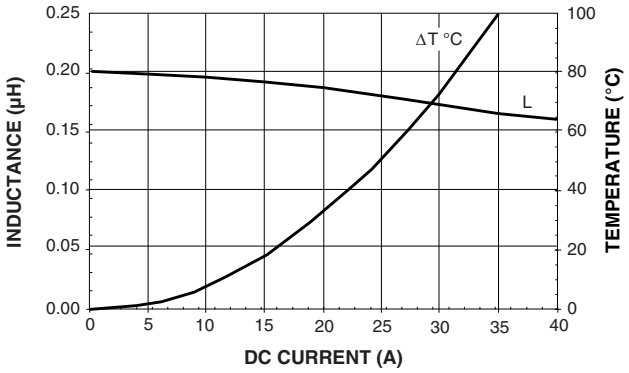
0.10 µH



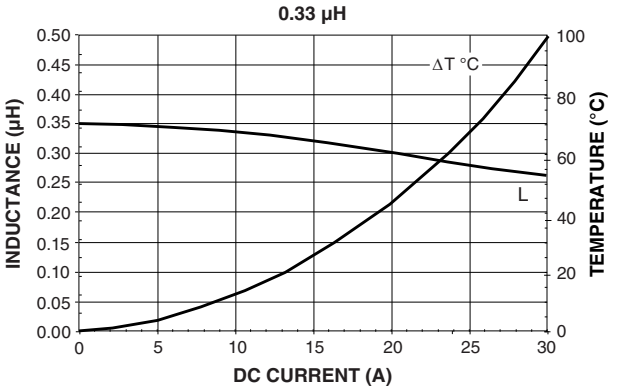
0.15 µH



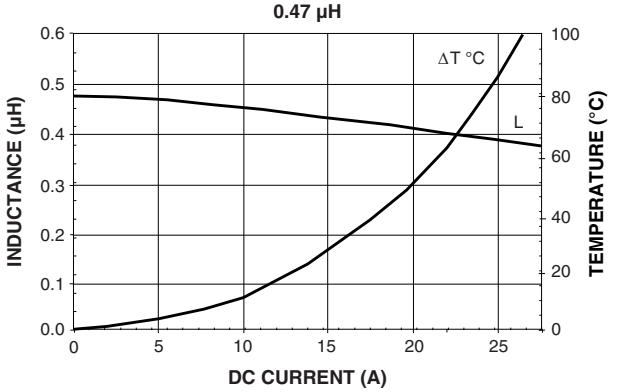
0.20 µH



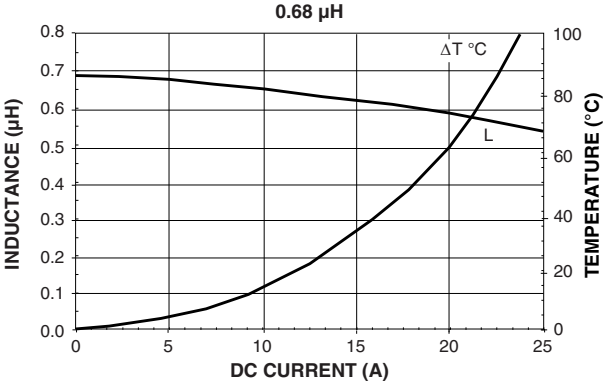
0.33 µH



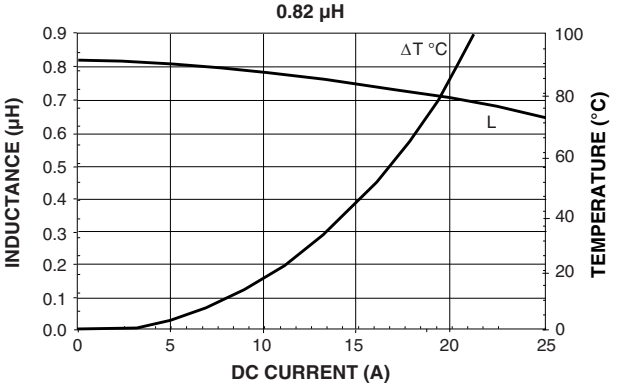
0.47 µH



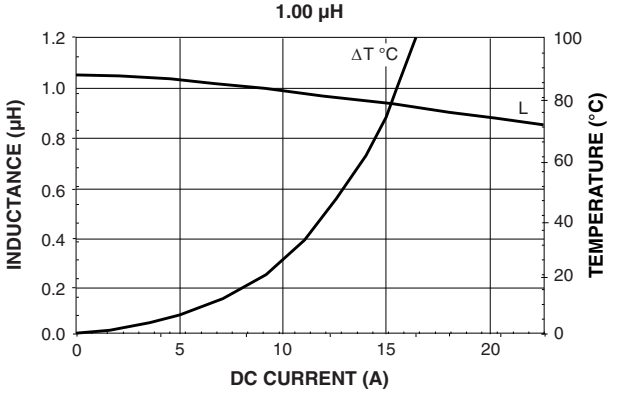
0.68 µH



0.82 µH



1.00 µH



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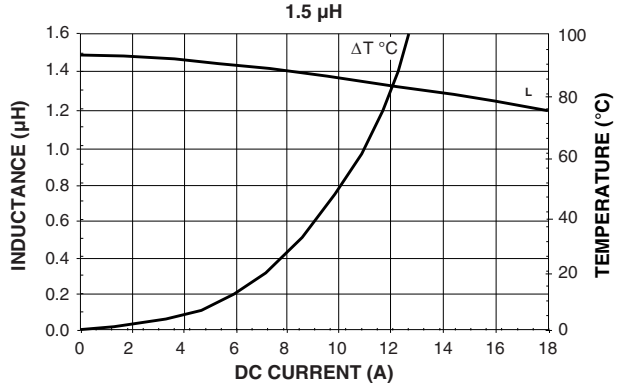
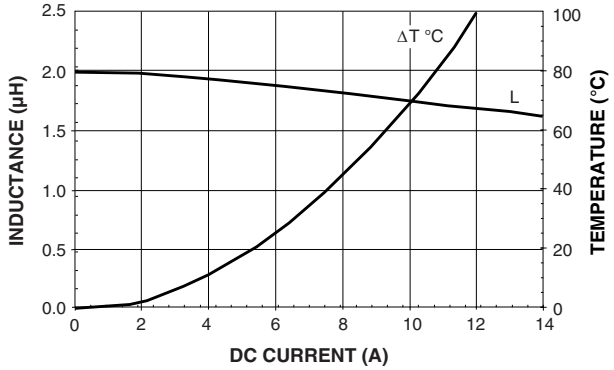
PERFORMANCE GRAPHS

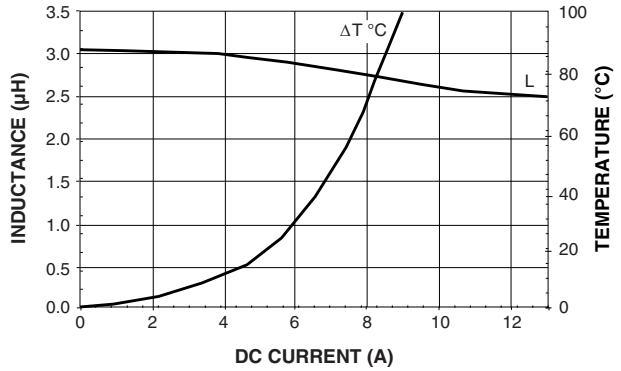
1.5 µH



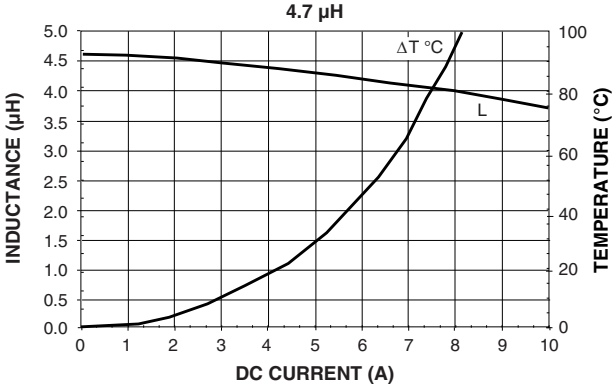
2.2 µH



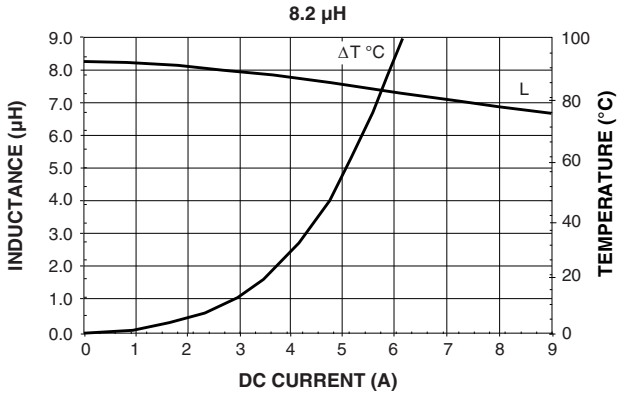
3.3 µH



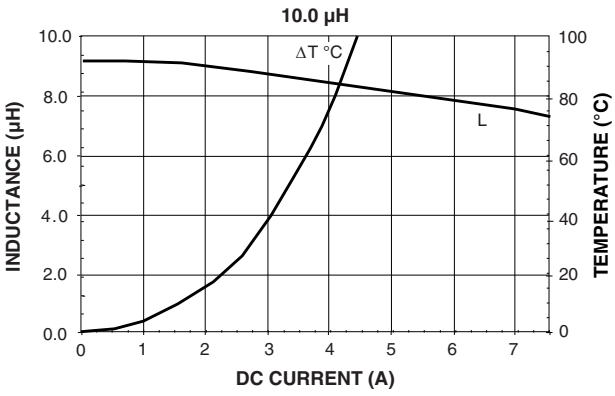
4.7 µH



8.2 µH



10.0 µH



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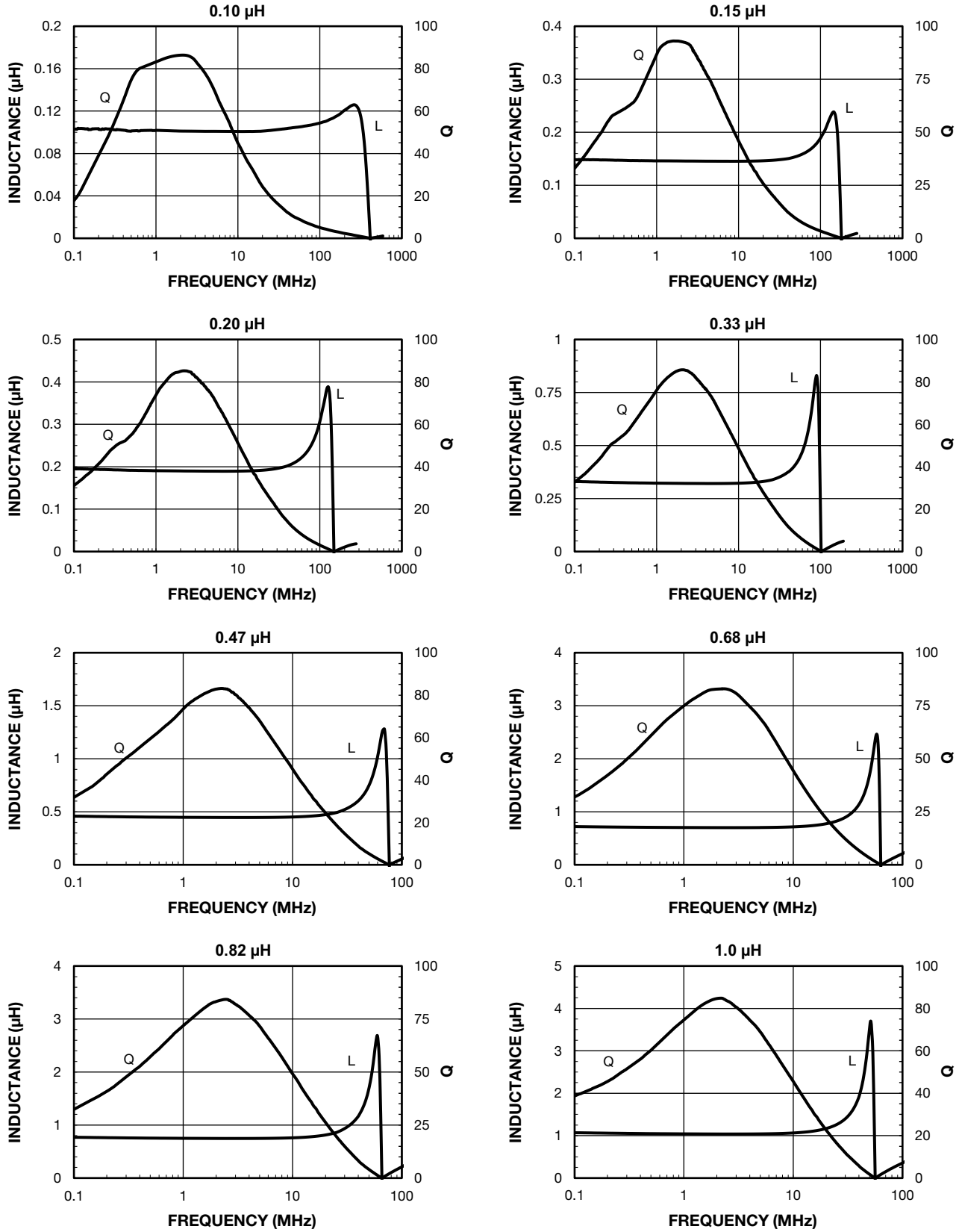
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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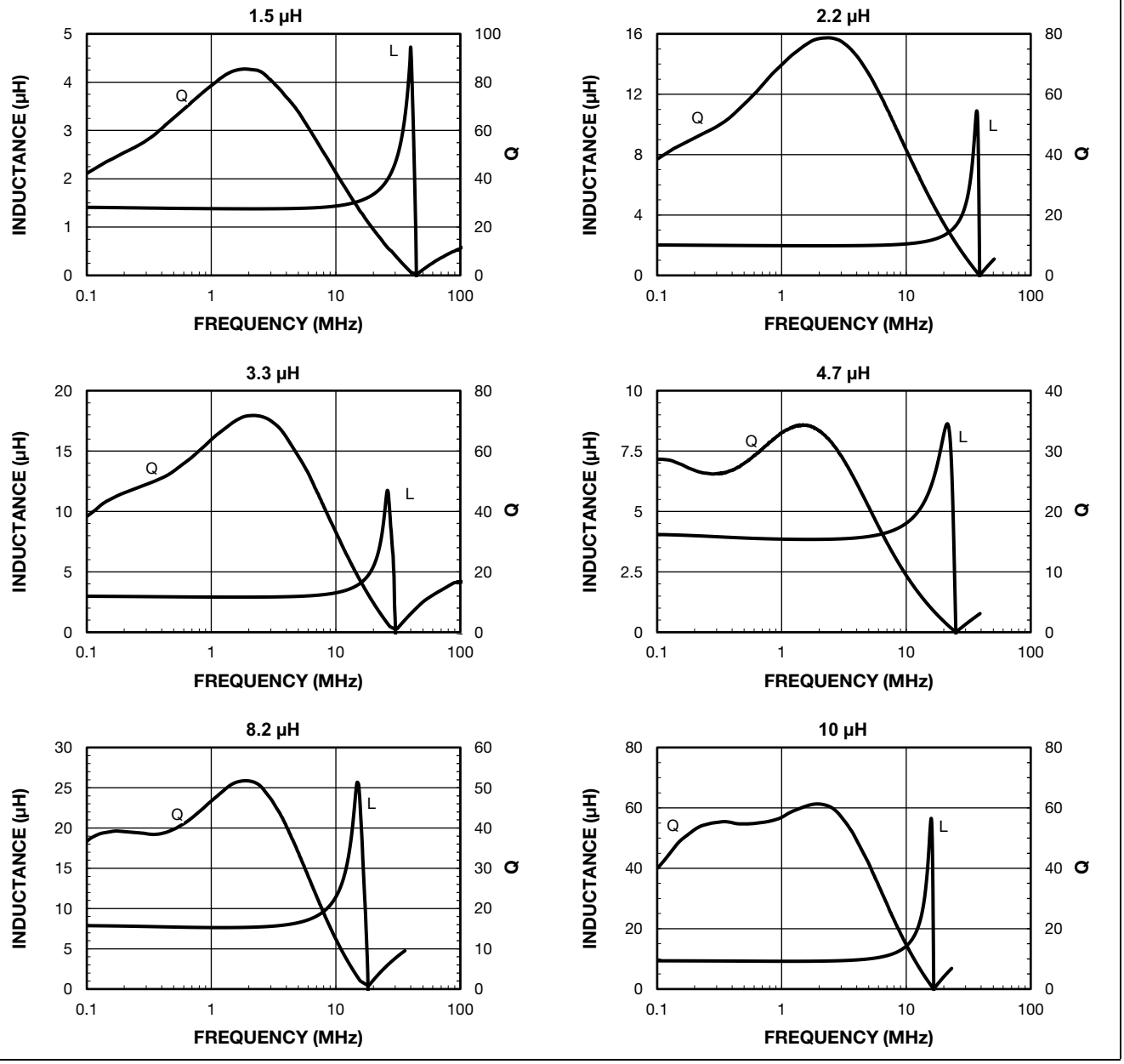
PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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