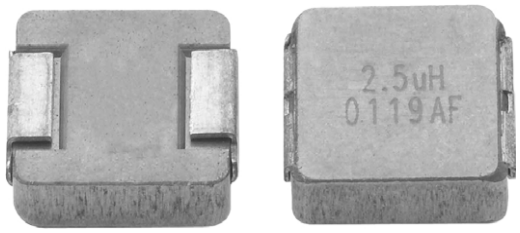
IHLP® Commercial Inductors, High Saturation Series



FEATURES

- Lowest height (1.8 mm) in this package footprint
- 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
HALOGEN FREE GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

3D Models Calculators

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)

STANDARD ELECTRICAL SPECIFICATIONS

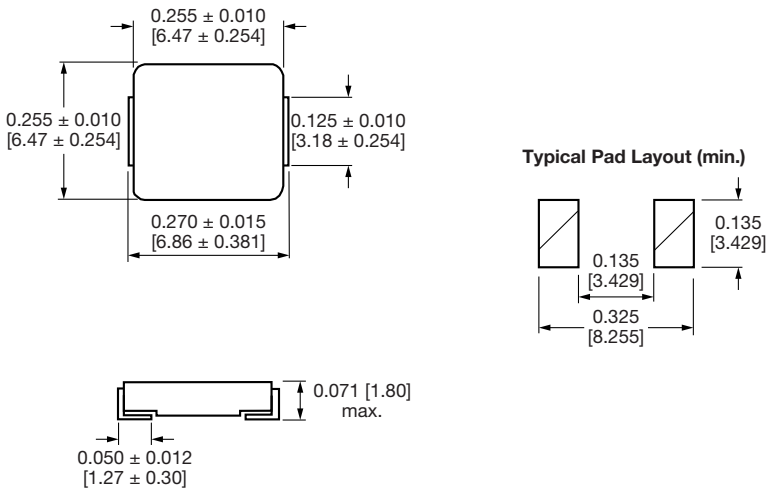
PART NUMBER	L_0 INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) (1)	SATURATION CURRENT DC TYP. (A)		SRF TYP. (MHz)
					20 % DROP (2)	30 % DROP (3)	
IHLP2525AHEKR10M01	0.10	3.0	3.5	23.6	38.5	46.3	288
IHLP2525AHEKR15M01	0.15	4.7	5.2	19.5	29.7	40.0	222
IHLP2525AHEKR22M01	0.22	5.3	5.7	16.6	25.8	32.4	183
IHLP2525AHEKR33M01	0.33	6.6	7.0	14.1	21.9	26.1	136
IHLP2525AHEKR47M01	0.47	8.4	9.3	13.4	17.7	21.6	96
IHLP2525AHEKR68M01	0.68	12.7	13.9	11.1	17.8	23.7	84
IHLP2525AHEKR82M01	0.82	13.8	15.9	10.0	15.1	22.3	78
IHLP2525AHEK1R0M01	1.0	17.5	18.3	8.8	13.6	17.7	65
IHLP2525AHEK1R5M01	1.5	32.6	34.0	6.5	10.5	14.3	50
IHLP2525AHEK2R2M01	2.2	40.3	46.0	6.0	8.9	12.4	43
IHLP2525AHEK2R5M01	2.5	49.9	52.4	5.3	10.0	12.5	37
IHLP2525AHEK3R3M01	3.3	56.2	60.1	5.1	8.2	10.4	36
IHLP2525AHEK4R7M01	4.7	76.6	78.0	4.4	6.2	8.6	25

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 %
(3) DC current (A) that will cause L_0 to drop approximately 30 %

DIMENSIONS in inches [millimeters]



DESCRIPTION

IHLP-2525AH-01	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 A H	E K	1 R 0	M	0 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE	INDUCTANCE TOLERANCE	SERIES
		EK = tape and reel	**1R0** = 1.0 µH	**M** = ± 20 %	

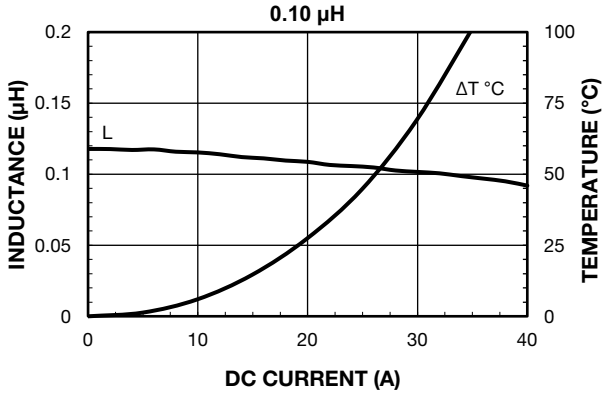
PACKAGE CODE OPTIONS

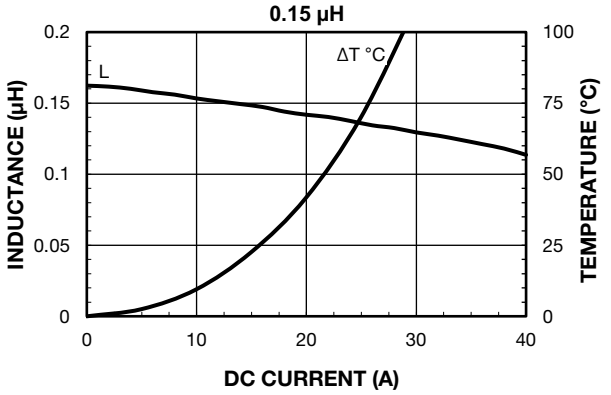
EK =	tape and reel packaging (3400 pcs on 13-inch reel)
ER =	tape and reel packaging (2000 pcs on 13-inch reel)

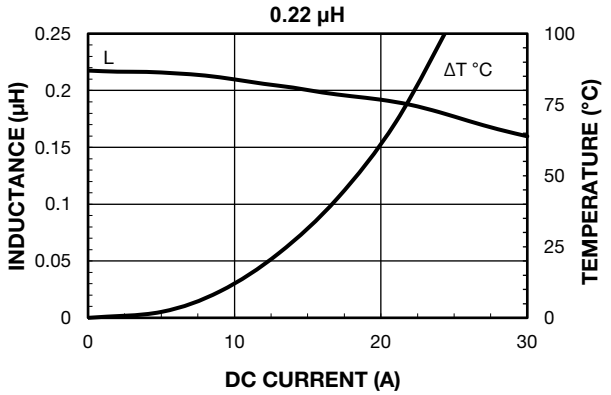
Note

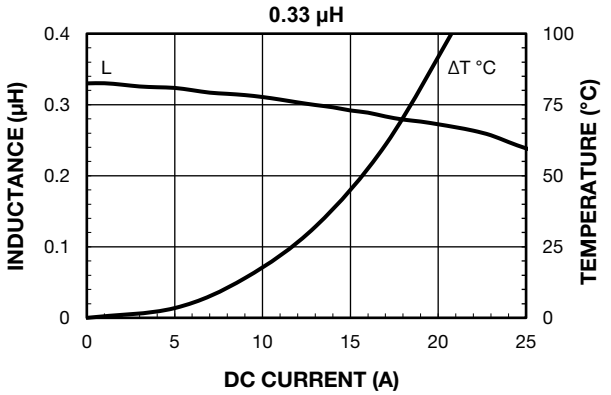
- For additional packaging details see "Packaging Methods"

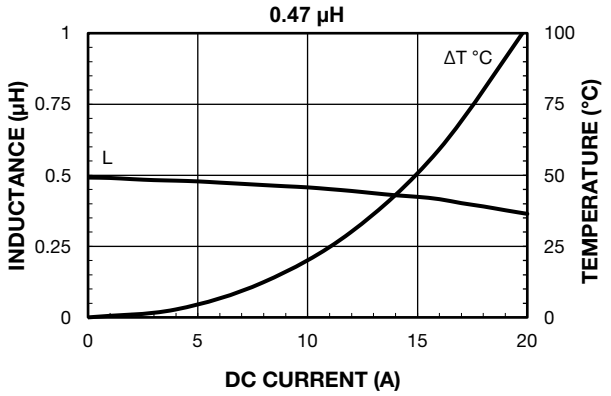
PERFORMANCE GRAPHS

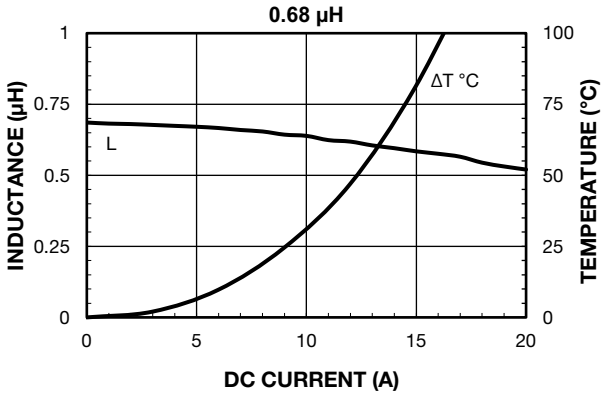


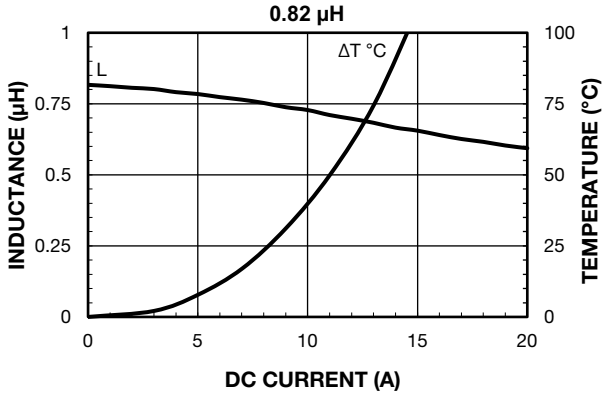


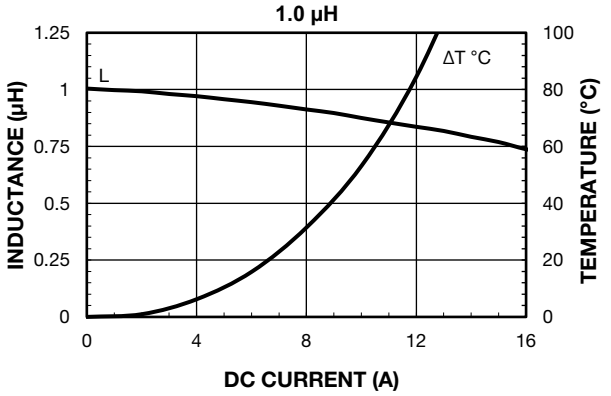












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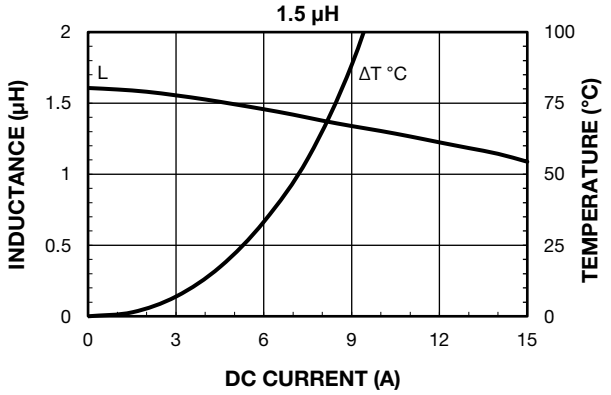
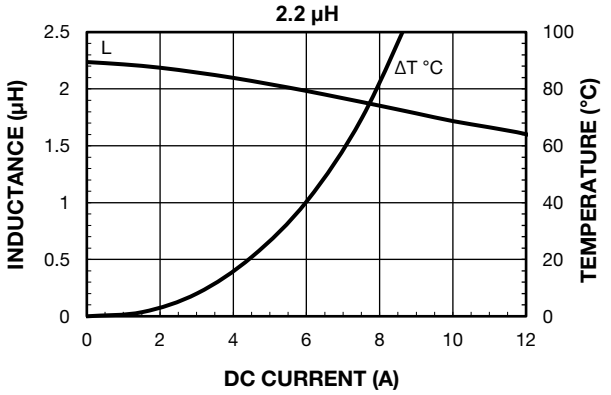
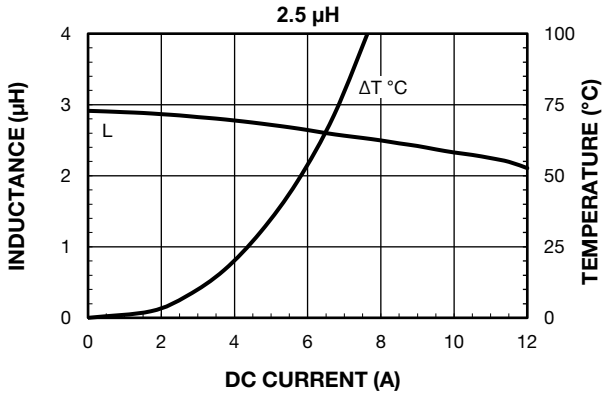
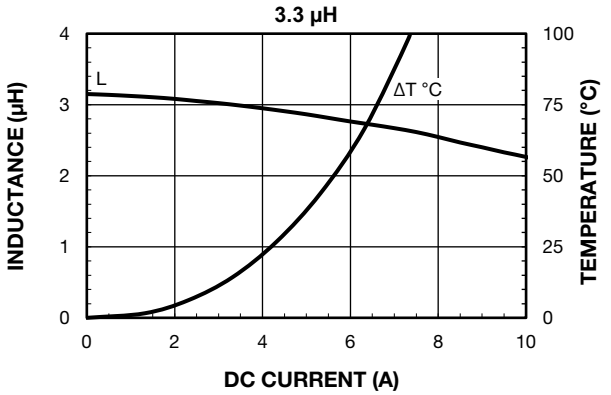
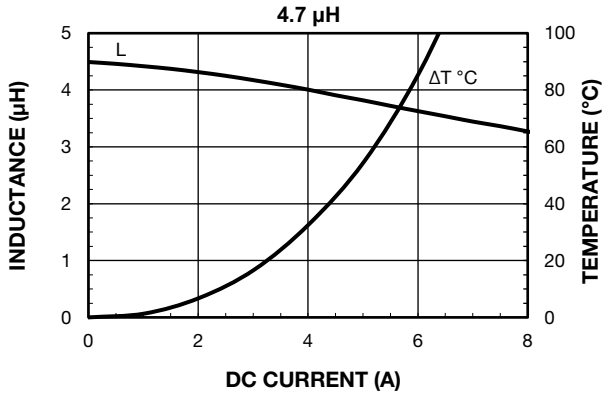


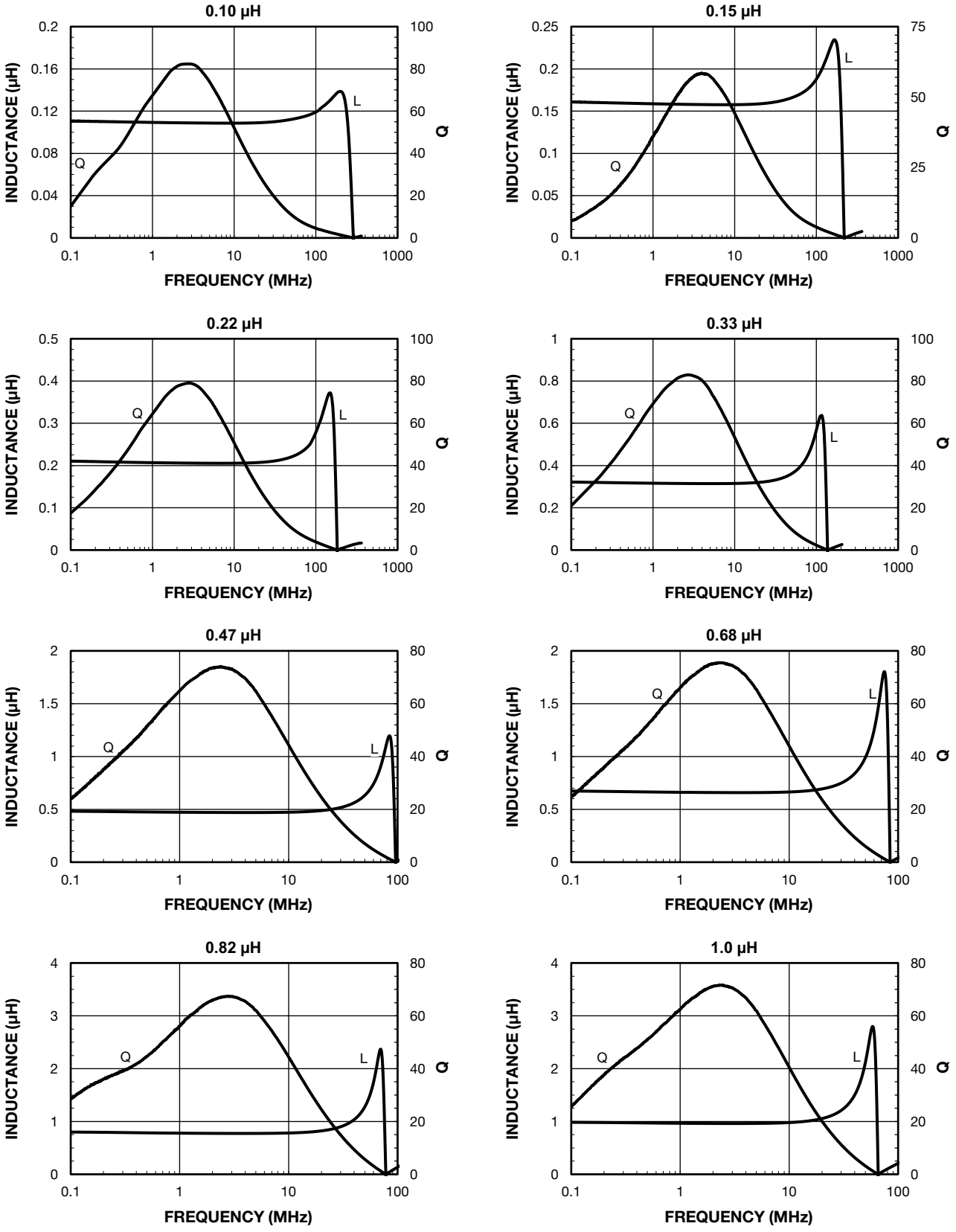








PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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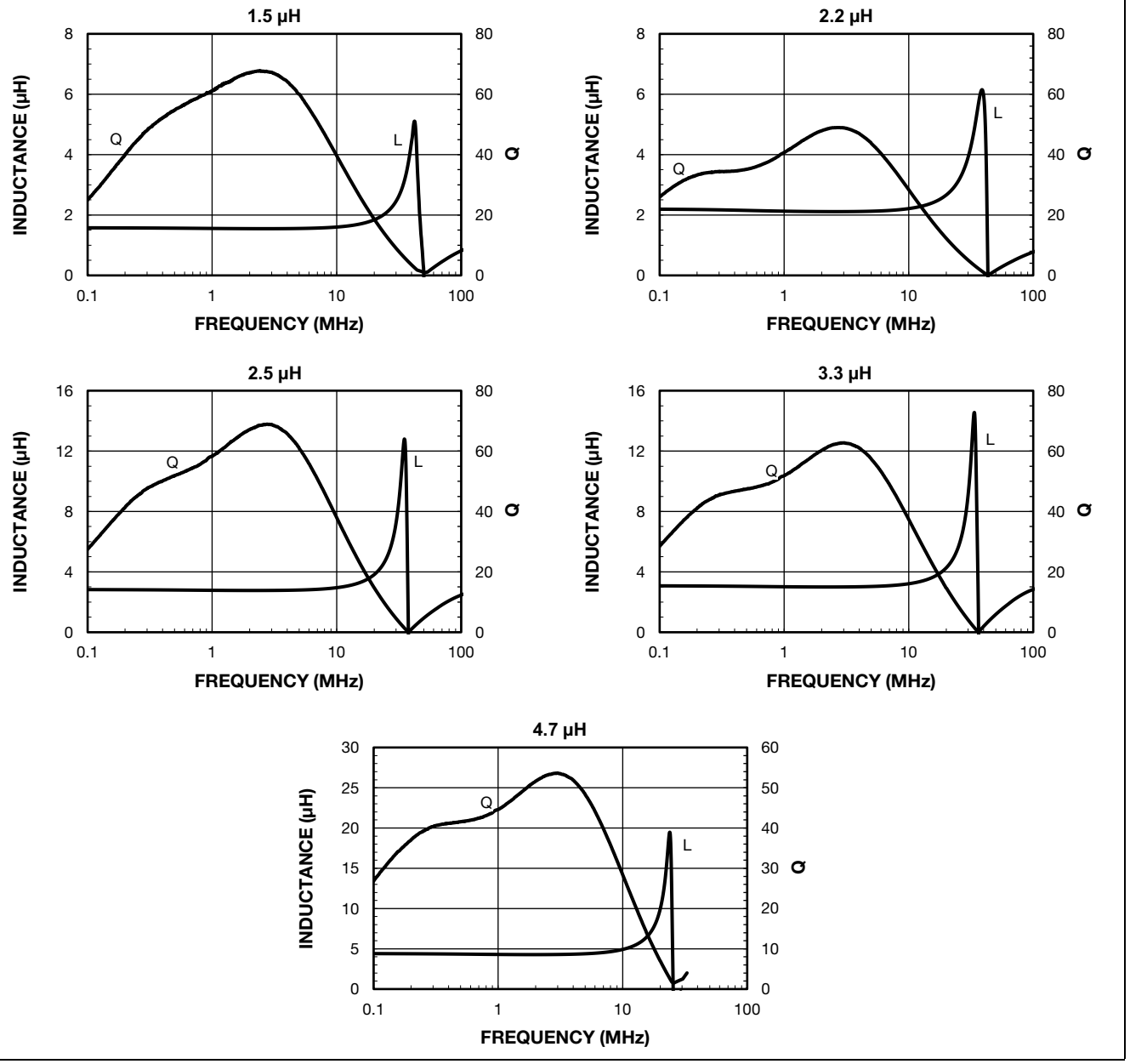

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