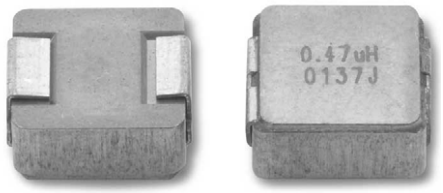
IHLP® Automotive Inductors, High Saturation Series



FEATURES

- Low profile inductor with excellent saturation for maximum ripple regulation and transient current control
- 5.18 mm x 5.18 mm x 2.0 mm SMD package
- Magnetically shielded construction
- Handles high transient current spikes without saturation
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

Product Page | 3D Models | Calculators

APPLICATIONS

- Automotive domain control units (DCU) and transmission / engine control
- DC/DC converters for infotainment, navigation systems, braking systems, LED lighting
- Power line noise suppression and filtering
- SSD modules, USB chargers

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) (2)	SRF TYP. (MHz)
IHLP2020BZE_R10MA1	0.10	3.6	3.9	17.0	45.0	239
IHLP2020BZE_R22MA1	0.22	4.9	5.2	15.0	22.0	145
IHLP2020BZE_R33MA1	0.33	7.6	8.2	12.0	25.0	125
IHLP2020BZE_R47MA1	0.47	8.9	9.4	11.5	21.0	98
IHLP2020BZE_R68MA1	0.68	11.2	12.4	10.0	15.0	77
IHLP2020BZE_1R0MA1	1.0	18.9	20.0	7.0	16.0	62
IHLP2020BZE_2R2MA1	2.2	45.6	50.1	4.2	9.5	39
IHLP2020BZE_3R3MA1	3.3	79.2	85.5	3.3	8.5	30
IHLP2020BZE_4R7MA1	4.7	108.0	116.6	2.8	5.0	28
IHLP2020BZE_5R6MA1	5.6	113.0	122.0	2.5	4.5	24
IHLP2020BZE_6R8MA1	6.8	139.0	150.0	2.4	4.3	21

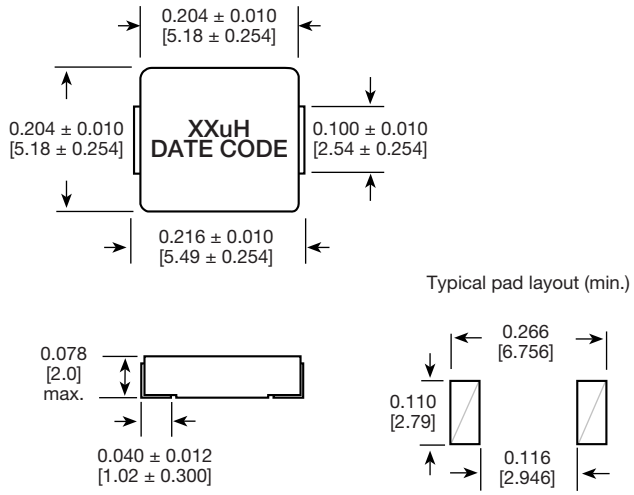
Notes

- 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, 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) = 50 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]



Notes

- Coplanarity of terminals: 0.004" = 0.1 mm max.
- Terminal standoff: the leads extend a minimum of 0.001" = 0.025 mm below the bottom surface of the part

DESCRIPTION

IHLP-2020BZ-A1	3.3 µH	± 20 %	EK	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I H L P	2 0 2 0 B Z	E K	3 R 3	M	A 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOLERANCE	SERIES
		EK = tape and reel	**3R3** = 3.3 µH	**M** = 20 %	

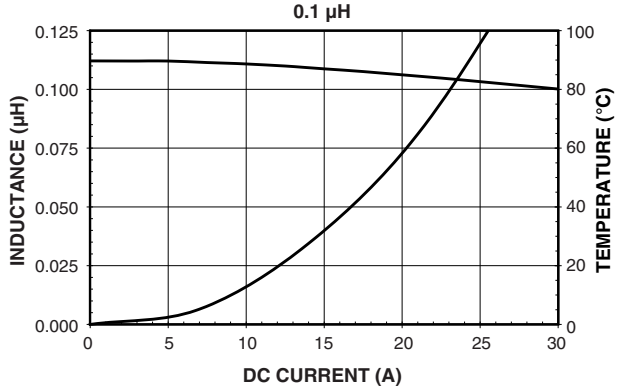
PACKAGE CODE OPTIONS

EK = tape and reel packaging (3500 pcs on 13-inch reel)

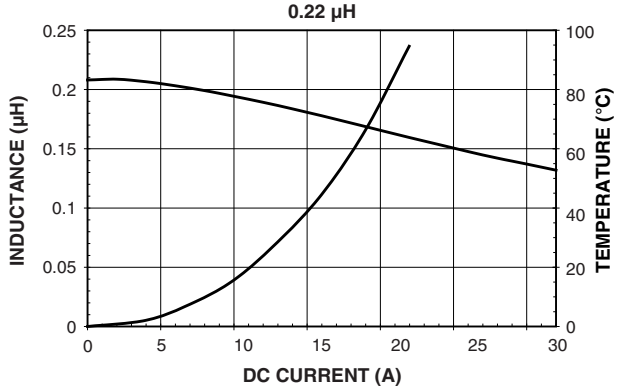
ER = tape and reel packaging (2000 pcs on 13-inch reel)

PERFORMANCE GRAPHS

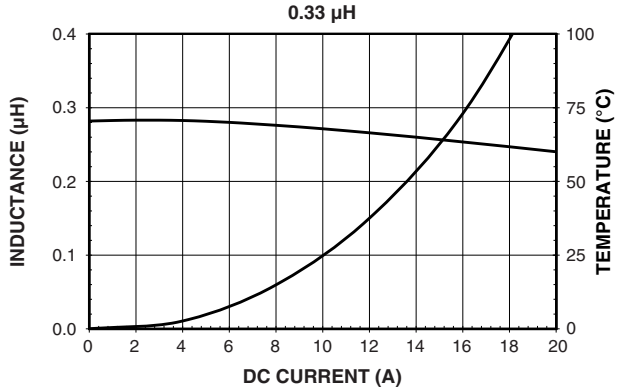
0.1 µH



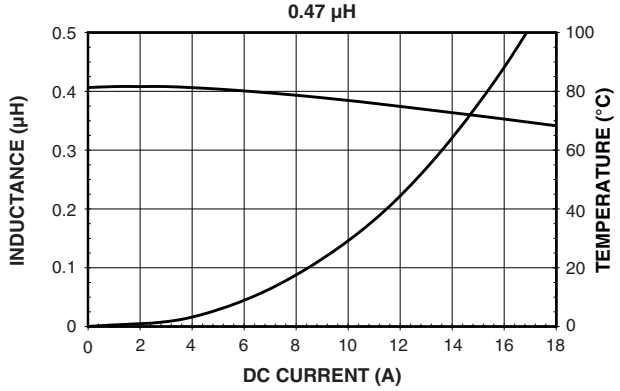
0.22 µH



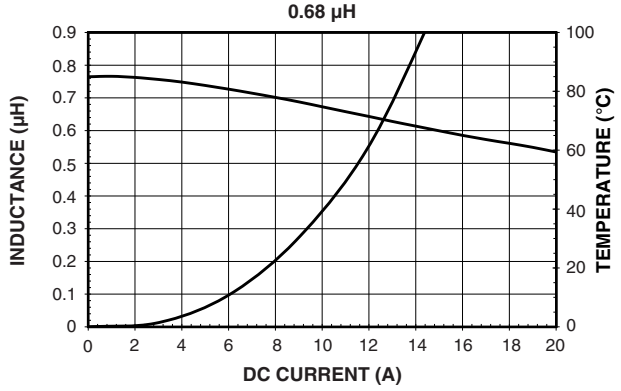
0.33 µH



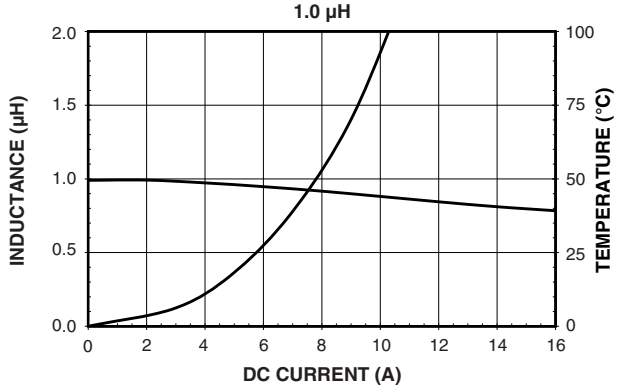
0.47 µH



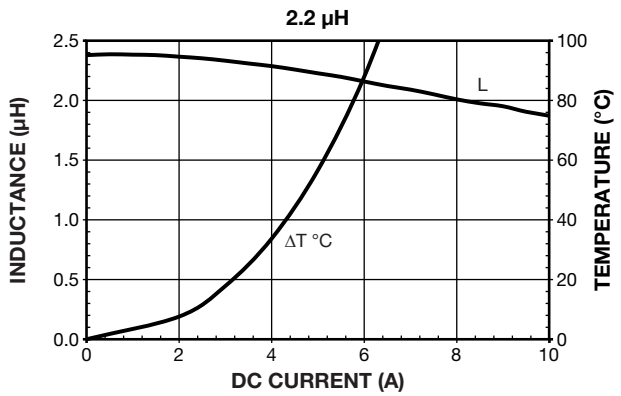
0.68 µH



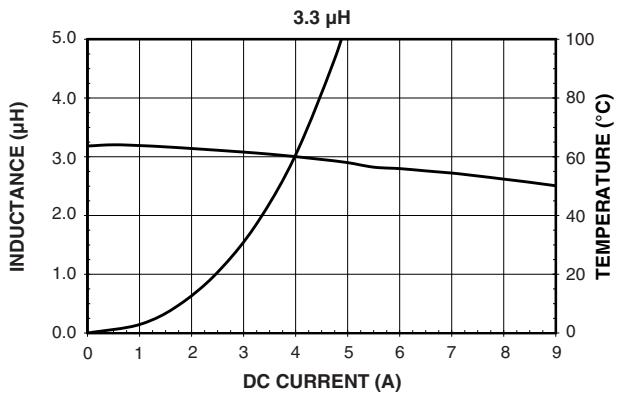
1.0 µH



2.2 µH



3.3 µH



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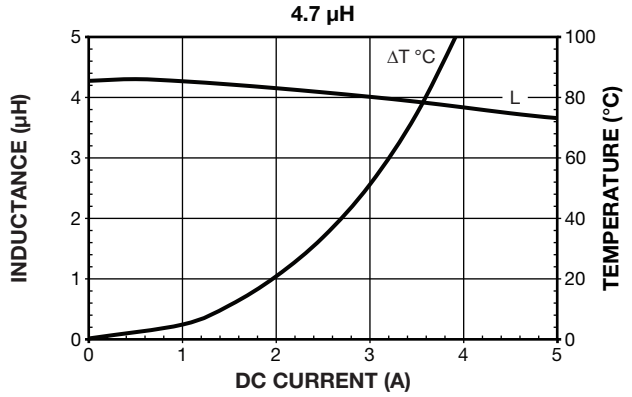
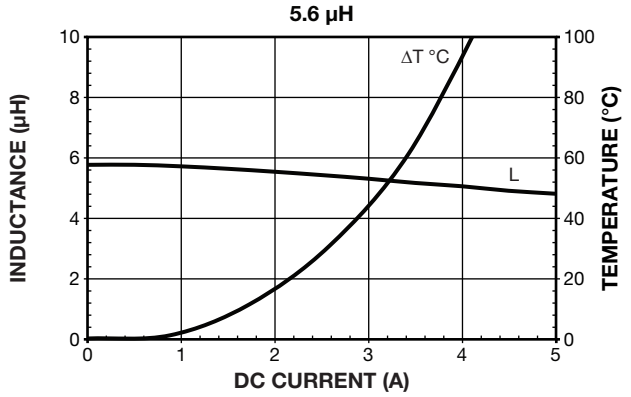
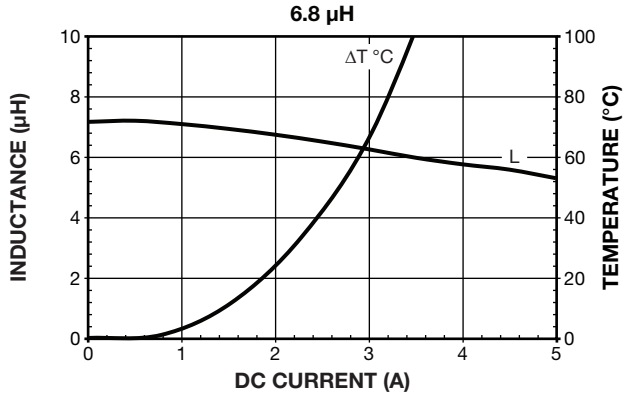
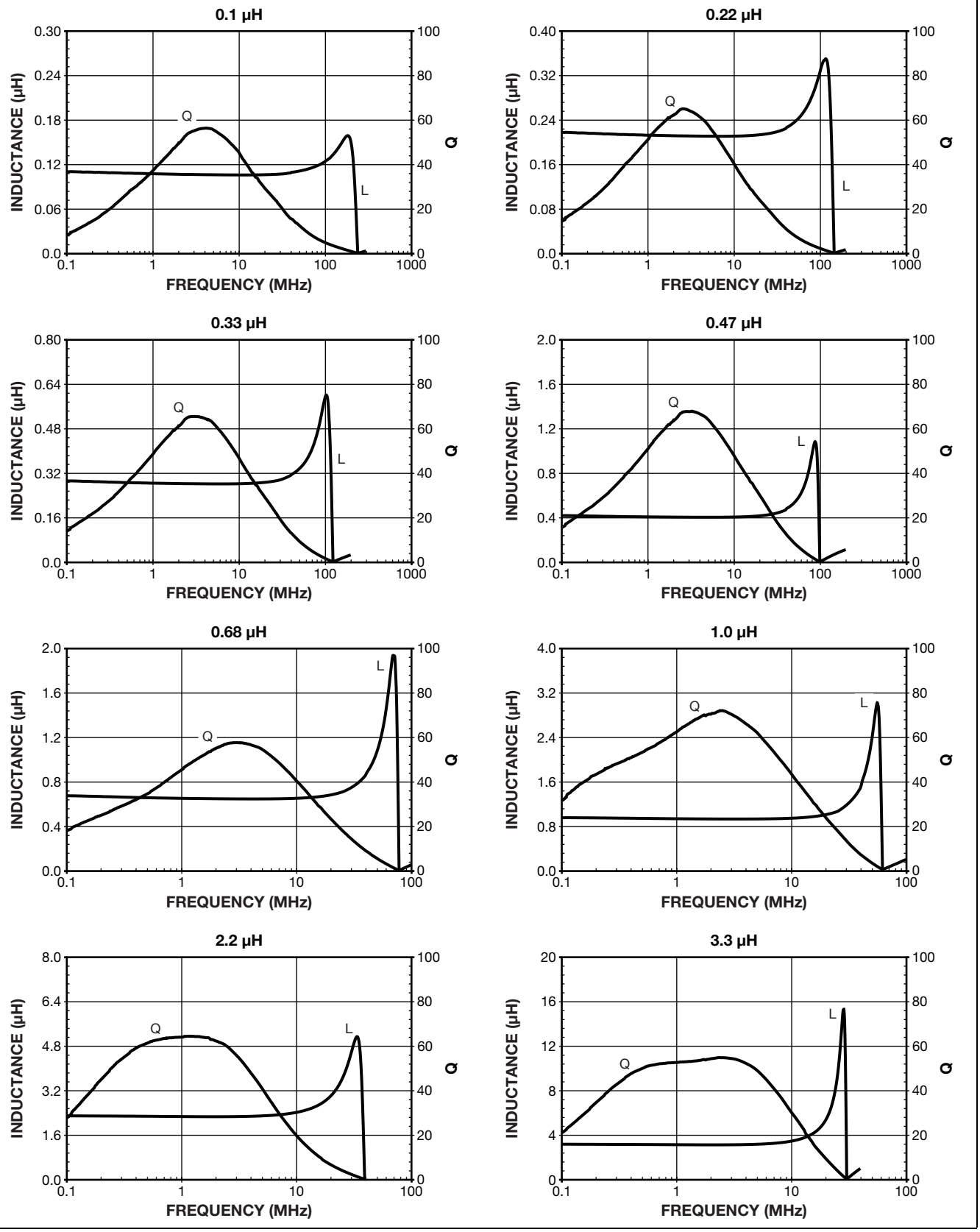


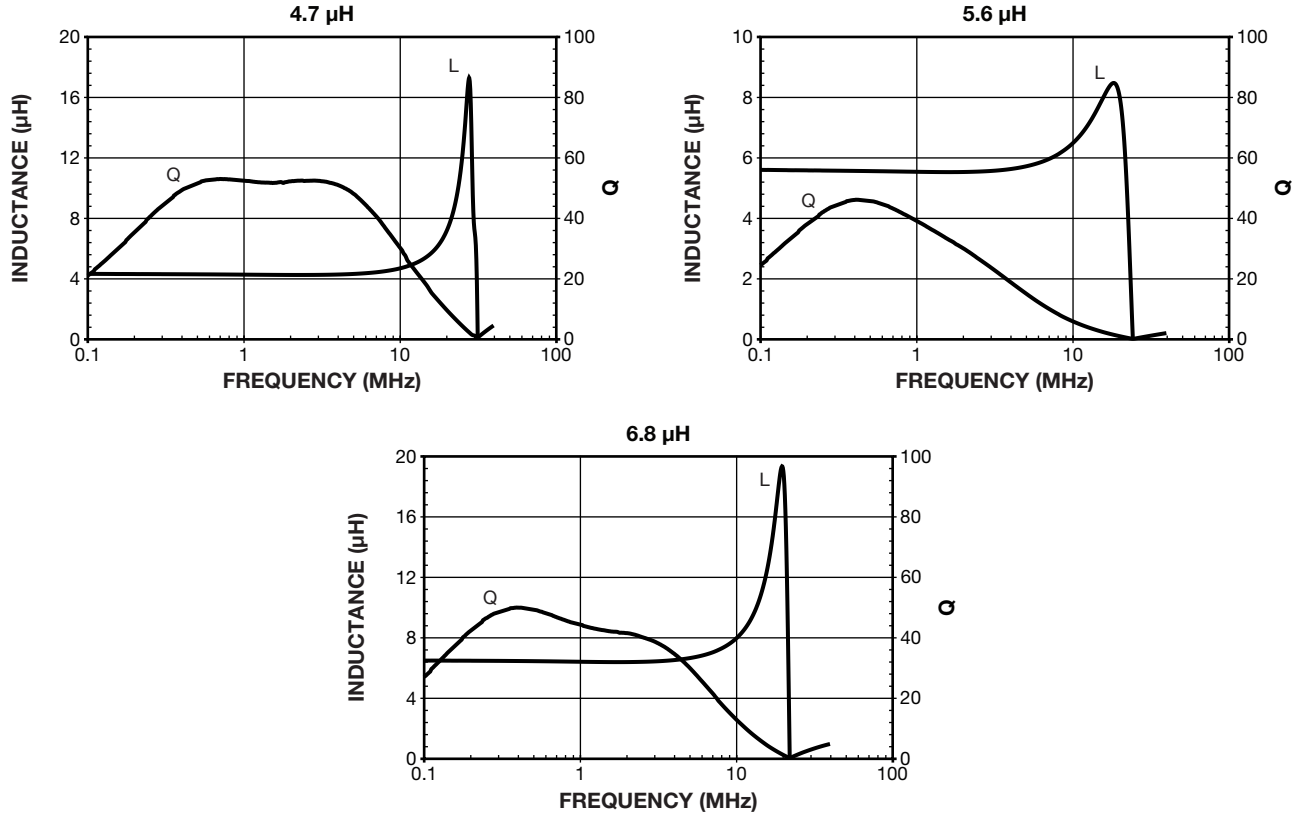




PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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