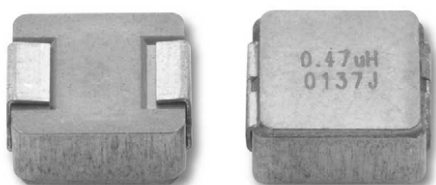


IHLP® Automotive Inductors, High Saturation Series



LINKS TO ADDITIONAL RESOURCES


[Product Page](#)

[3D Models](#)

[Calculators](#)

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


RoHS
COMPLIANT

HALOGEN
FREE
GREEN
(5-2008)

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

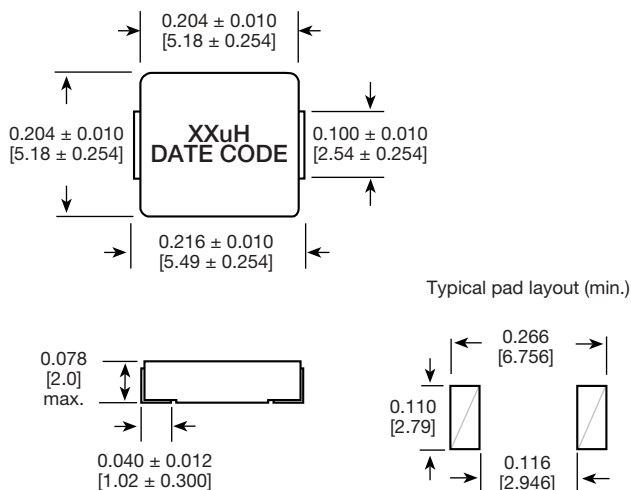
PART NUMBER	L_0 INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A (μ H)	DCR TYP. 25 °C (m Ω)	DCR MAX. 25 °C (m Ω)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾	SRF TYP. (MHz)
IHLP2020BZERR10MA1	0.10	3.6	3.9	17.0	45.0	239
IHLP2020BZERR22MA1	0.22	4.9	5.2	15.0	22.0	145
IHLP2020BZERR33MA1	0.33	7.6	8.2	12.0	25.0	125
IHLP2020BZERR47MA1	0.47	8.9	9.4	11.5	21.0	98
IHLP2020BZERR68MA1	0.68	11.2	12.4	10.0	15.0	77
IHLP2020BZER1R0MA1	1.0	18.9	20.0	7.0	16.0	62
IHLP2020BZER2R2MA1	2.2	45.6	50.1	4.2	9.5	39
IHLP2020BZER3R3MA1	3.3	79.2	85.5	3.3	8.5	30
IHLP2020BZER4R7MA1	4.7	108.0	116.6	2.8	5.0	28
IHLP2020BZER5R6MA1	5.6	113.0	122.0	2.5	4.5	24
IHLP2020BZER6R8MA1	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]



DESCRIPTION

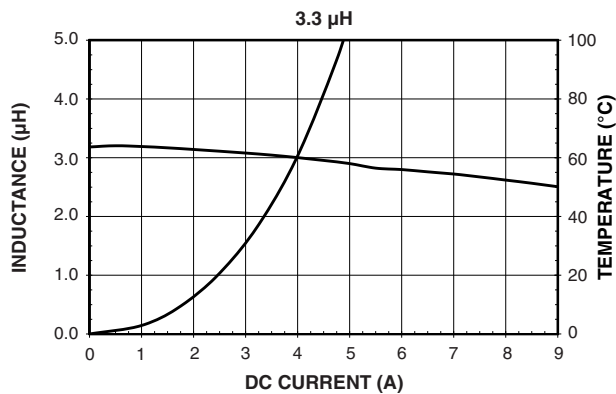
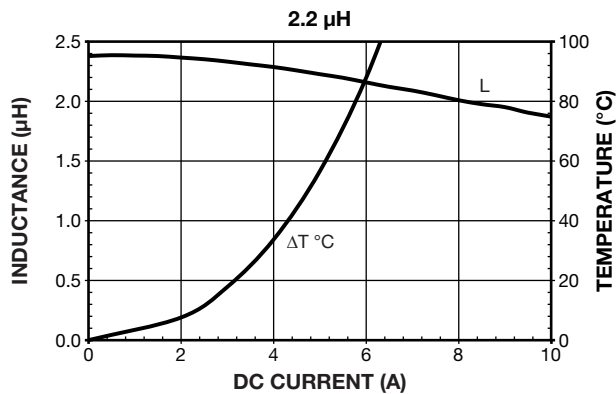
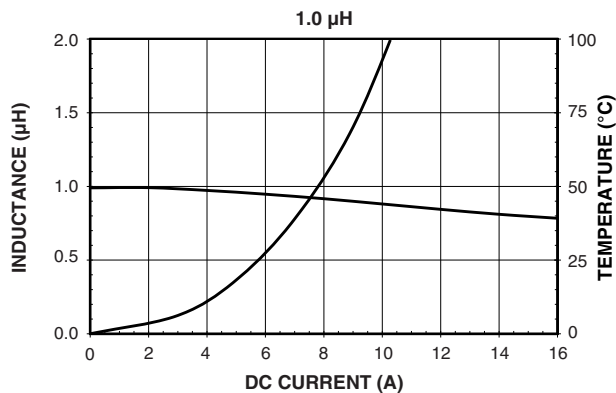
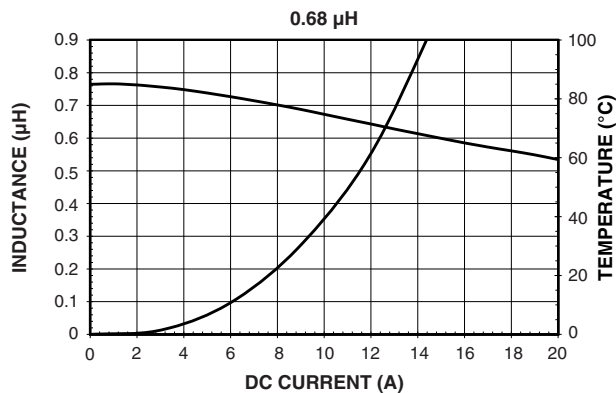
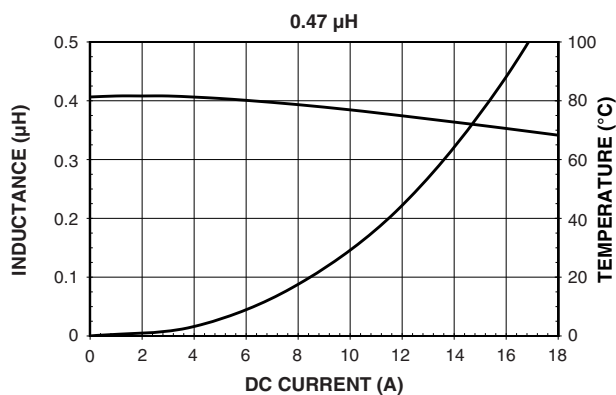
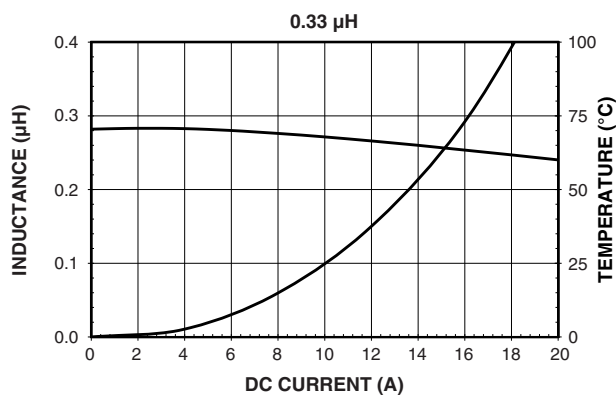
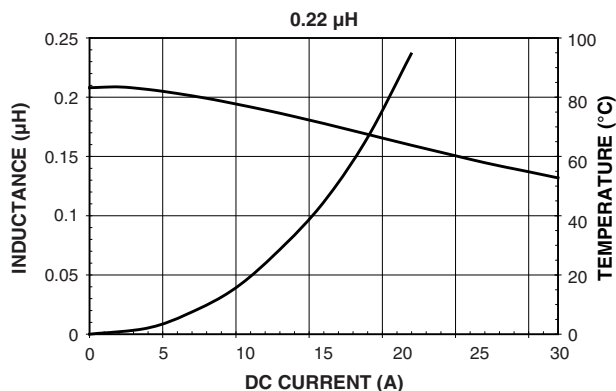
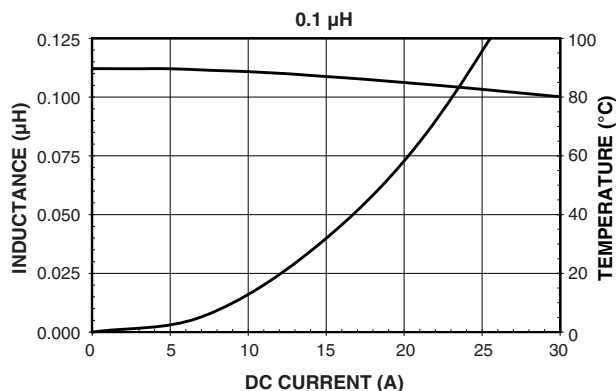
IHLP-2020BZ-A1	3.3 μH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

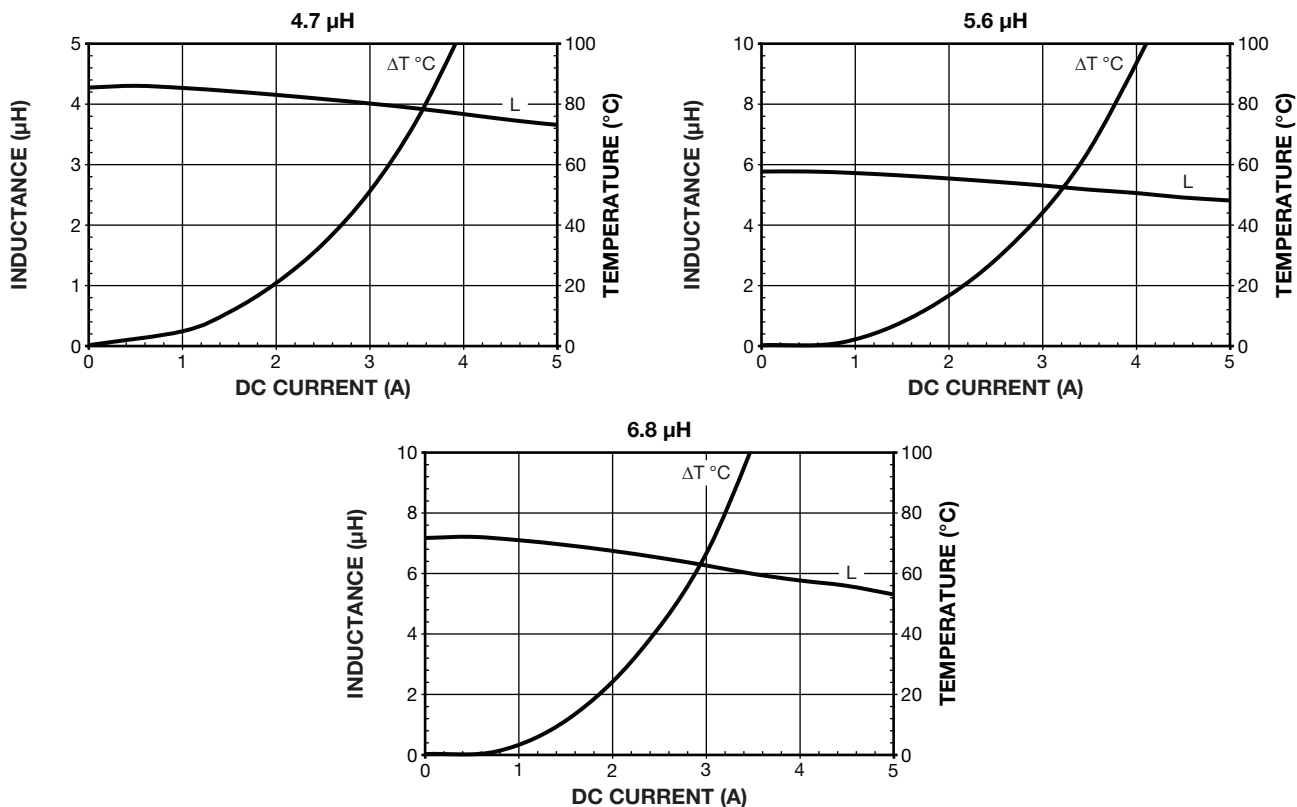
GLOBAL PART NUMBER

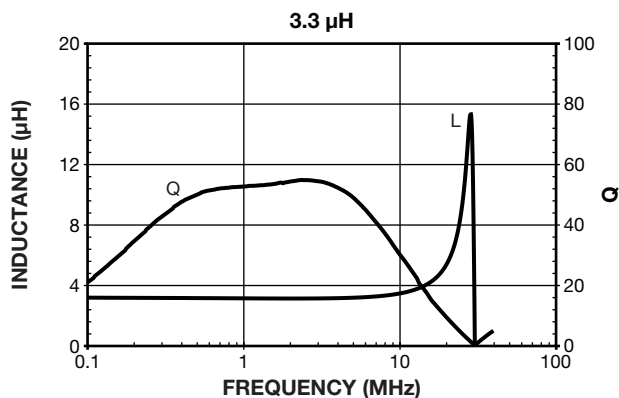
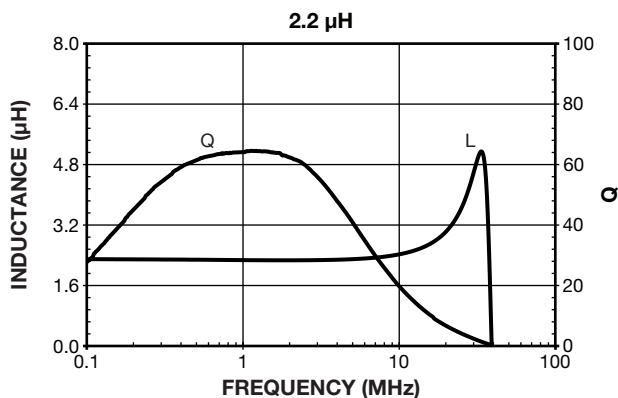
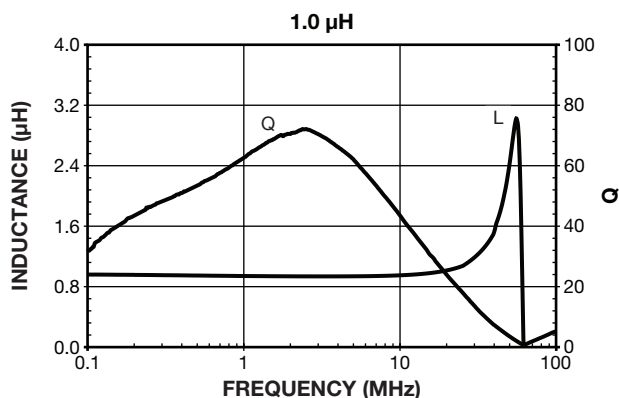
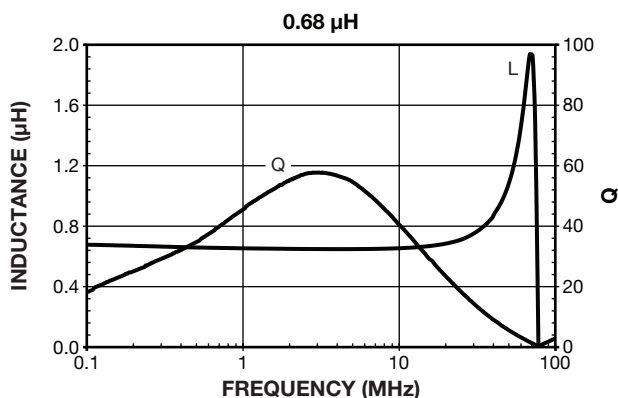
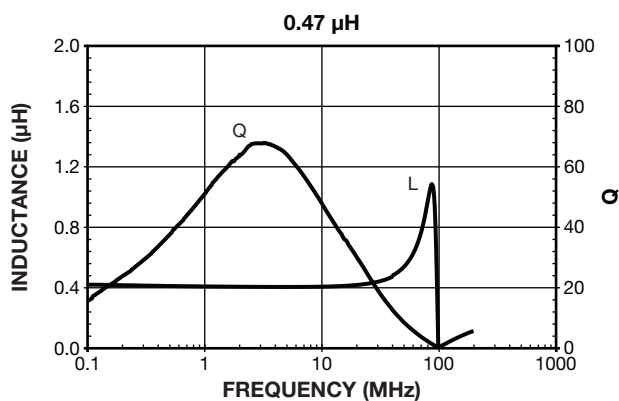
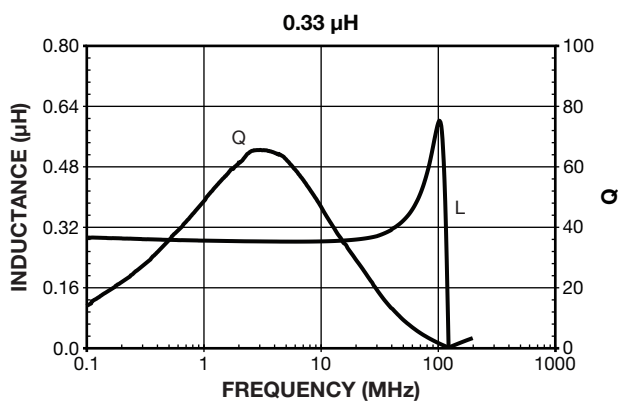
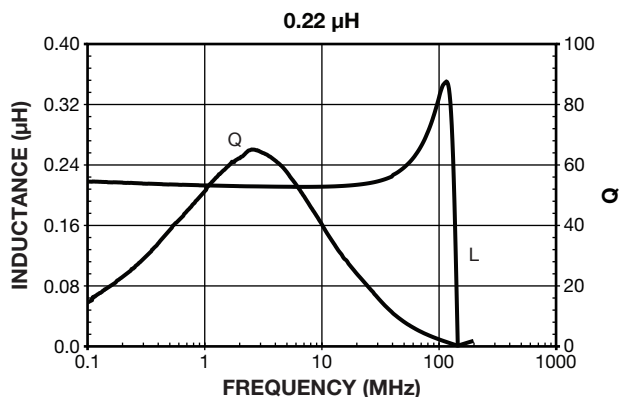
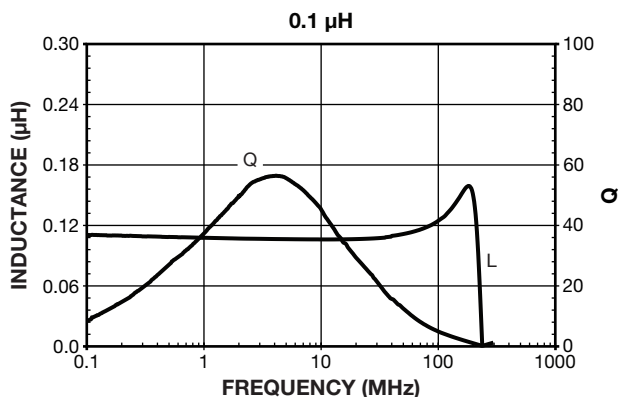
I H L P	2 0 2 0 B Z	E R	3 R 3	M	A 1
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOLERANCE	SERIES
ER = tape and reel			3R3 = 3.3 Ω	M = 20 %	



PERFORMANCE GRAPHS

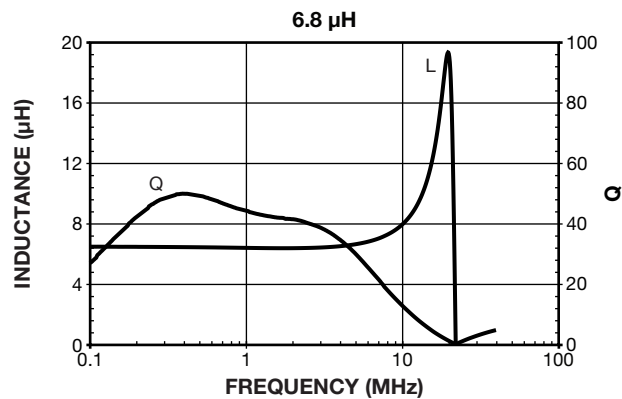
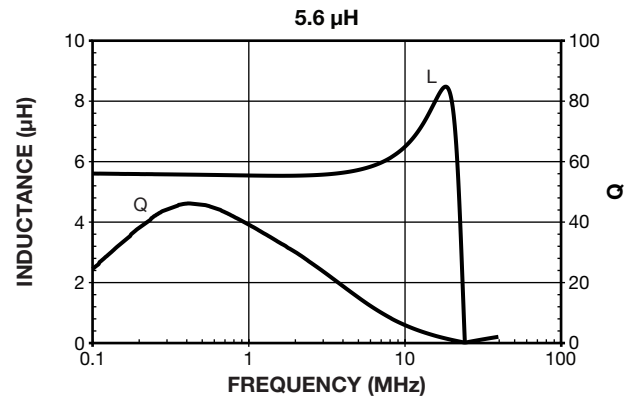
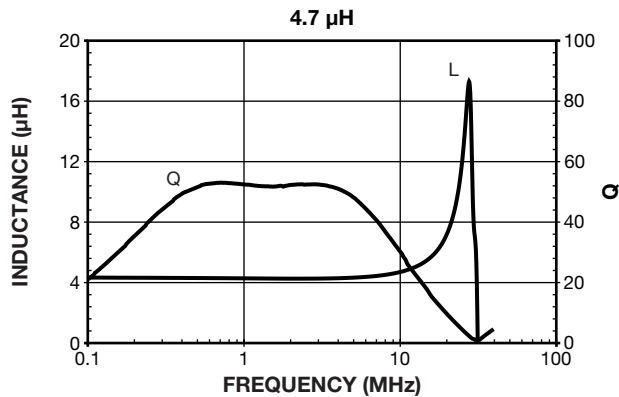


PERFORMANCE GRAPHS


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY




PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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