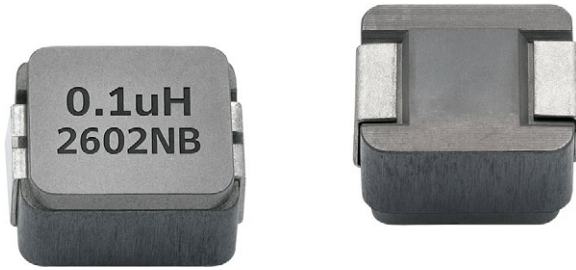


# IHLP® Automotive Inductors, High Saturation Series



## FEATURES

- Size: 5.49 mm x 5.18 mm x 1.2 mm
- Shielded construction
- Handles high transient current spikes without saturation
- Excellent temperature stability for inductance and saturation
- AEC-Q200 qualified
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

AUTOMOTIVE GRADE


**RoHS**  
 COMPLIANT  
 HALOGEN  
**FREE**  
**GREEN**  
 (5-2008)

## LINKS TO ADDITIONAL RESOURCES



## APPLICATIONS

- Automotive DC/DC converters
- Power line noise suppression and filtering
- ADAS modules, USB chargers

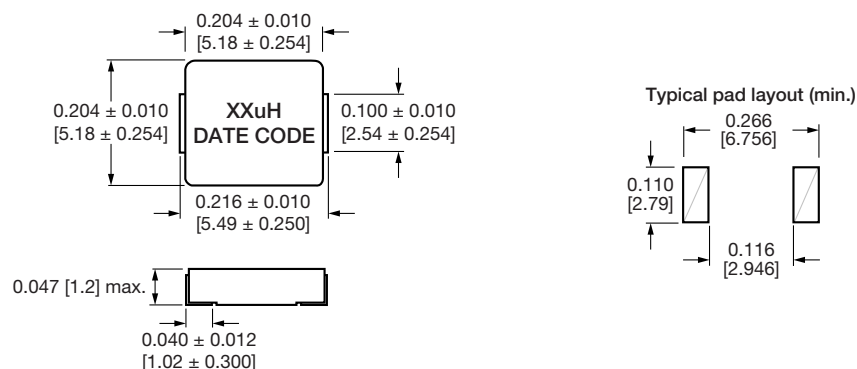
## STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR 25 °C (mΩ)		HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>		SRF TYP. (MHz)
		TYP.	MAX.		20 % DROP	30 % DROP	
IHLP2020AB**R10MA1	0.1	4.32	4.6	13.5	35.0	45.0	256
IHLP2020AB**R47MA1	0.47	18.2	19.2	6.5	13.0	16.0	108
IHLP2020AB**1R0MA1	1	44.3	46.5	4.4	6.5	10.0	64
IHLP2020AB**2R2MA1	2.2	73.6	77.3	3.4	4.7	6.5	47
IHLP2020AB**3R3MA1	3.3	98.4	103	2.8	5	7.0	33
IHLP2020AB**4R7MA1	4.7	159	168	2.2	3	4.5	30

## 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<sub>0</sub> to drop approximately 20 % and 30 %

## DIMENSIONS in inches [millimeters]





DESCRIPTION					
IHLP2020AB-A1	4.7 $\mu$ H	$\pm 20\%$	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 A B	E K	4 R 7	M	A 1
PRODUCT FAMILY		SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE
			EK = tape and reel	4R7 = 4.7 $\mu$ H	M = $\pm 20\%$ N = $\pm 30\%$
					SERIES

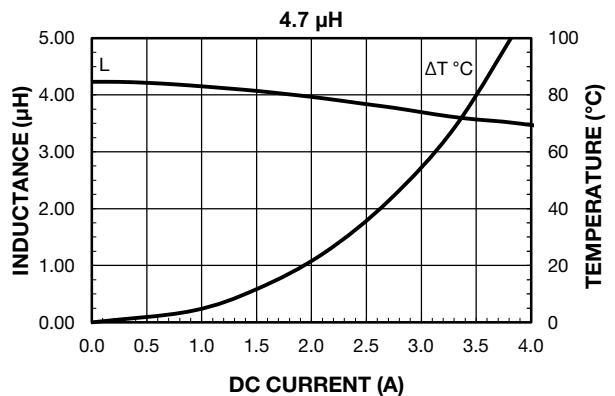
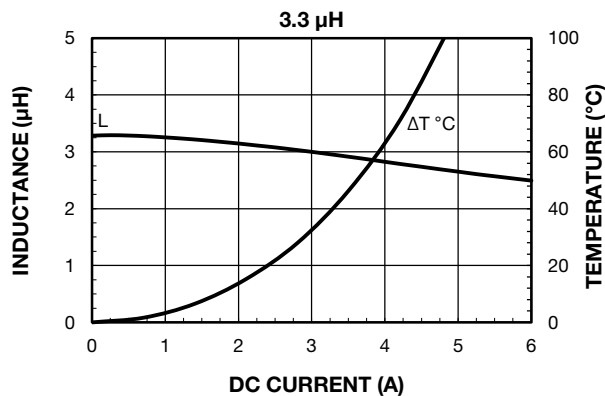
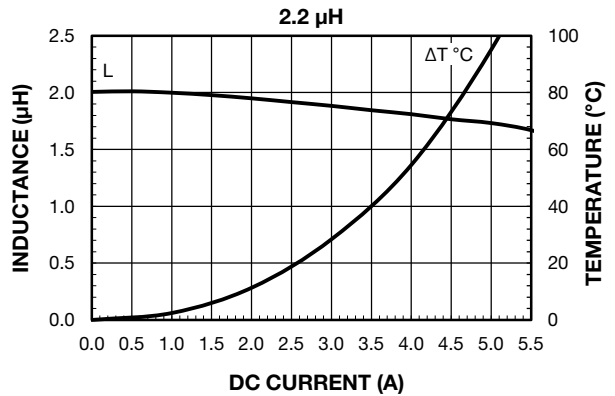
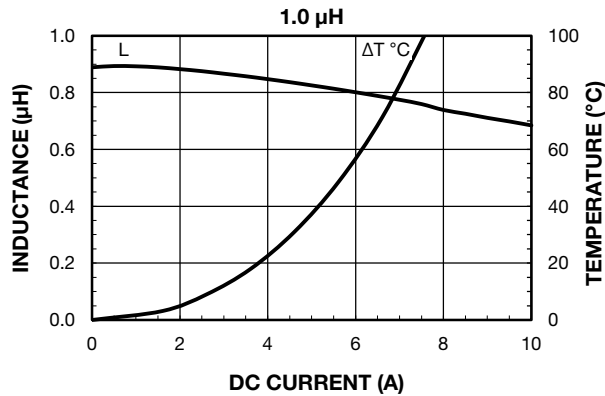
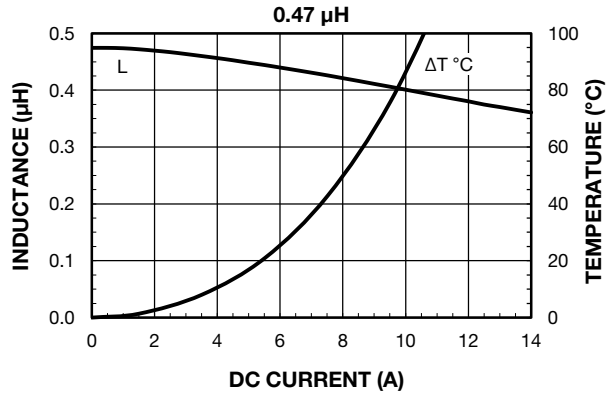
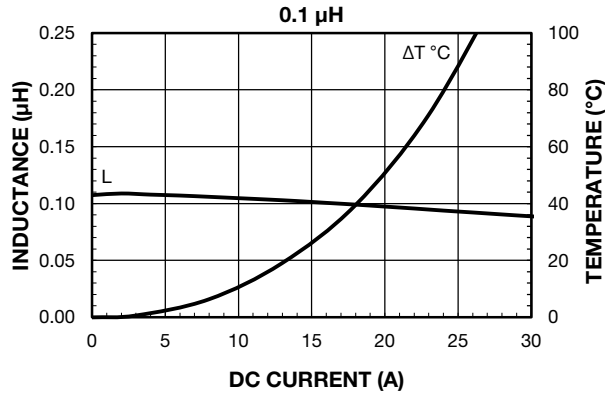
PACKAGE CODE OPTIONS
EK = tape and reel packaging (4800 pcs on 13-inch reel)
ER = tape and reel packaging (4000 pcs on 13-inch reel)

**Note**

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

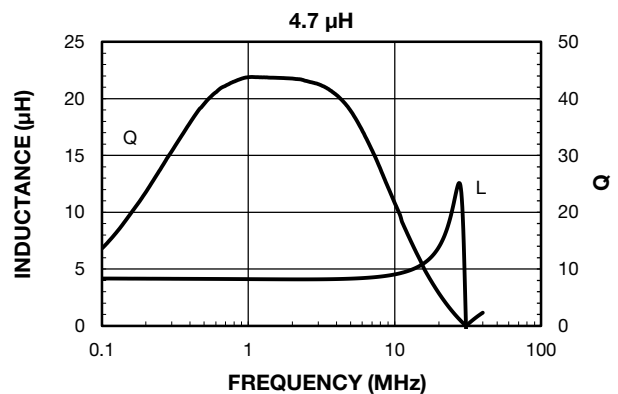
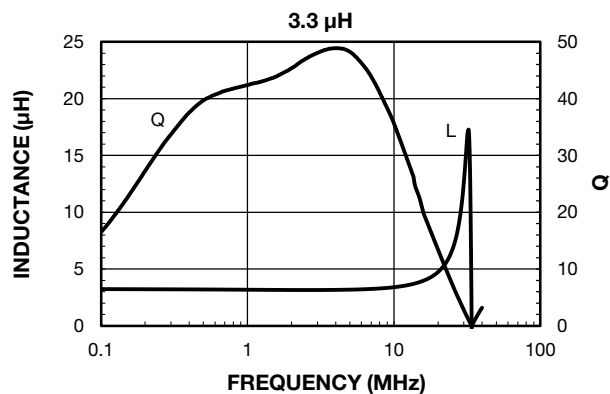
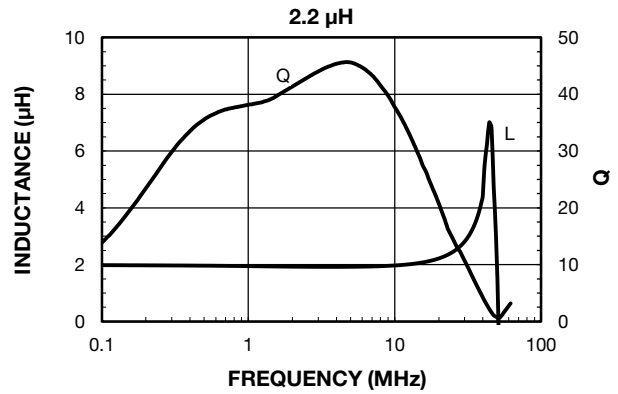
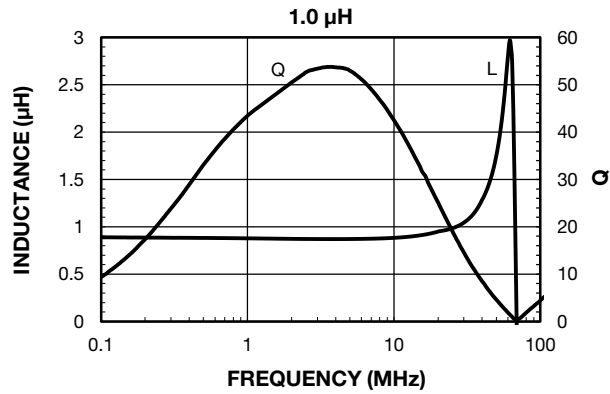
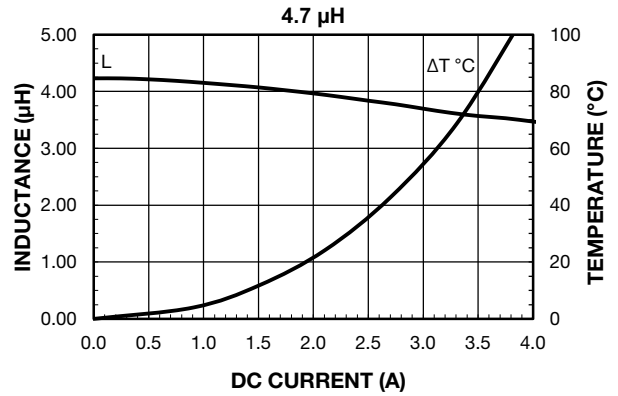
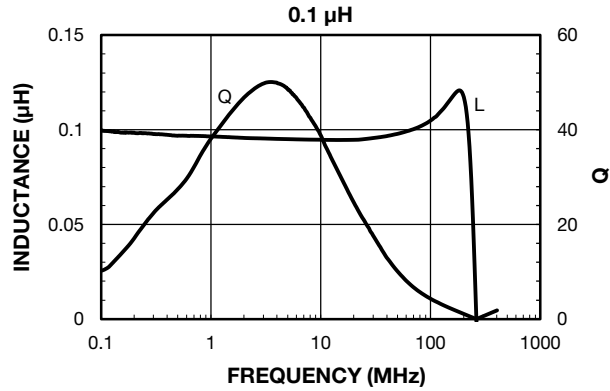


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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