

# IHLP® Automotive Inductors, High Saturation Series



## LINKS TO ADDITIONAL RESOURCES



STANDARD ELECTRICAL SPECIFICATIONS					
$L_0$ INDUCTANCE $\pm 20\%$ AT 100 kHz, 0.25 V, 0 A ( $\mu\text{H}$ )	DCR TYP. 25 °C ( $\text{m}\Omega$ )	DCR MAX. 25 °C ( $\text{m}\Omega$ )	HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)
0.047	3.25	3.75	13.0	32.0	565
0.10	5.50	6.00	11.5	25.0	277
0.22	11.0	12.0	8.5	20.0	183
0.47	20.0	22.0	5.0	13.0	101
0.68	29.3	31.4	4.9	9.3	100
1.0	50.0	52.5	4.0	7.0	64

### 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) = 50 V
- <sup>(1)</sup> DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- <sup>(2)</sup> DC current (A) that will cause  $L_0$  to drop approximately 20 %

## FEATURES

- Shielded construction
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Excellent DC/DC energy storage up to 5 MHz. Filter inductor applications up to SRF (see “Standard Electrical Specifications” table)
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

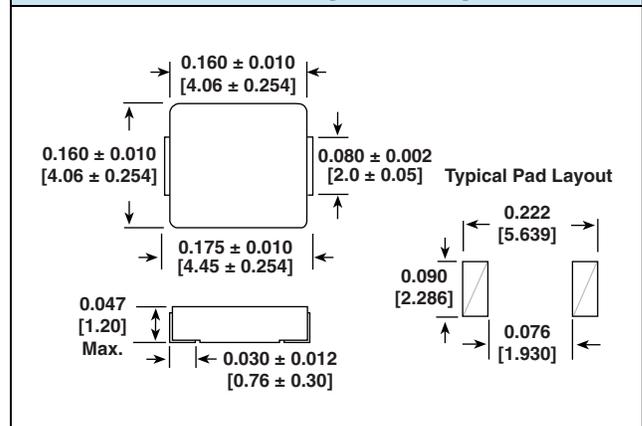
 AUTOMOTIVE  
GRADE

**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
[5-2008]

## APPLICATIONS

- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors
  - Windshield wipers
  - Power seats
  - Power mirrors
  - Heating and ventilation blowers
  - HID lighting
- LED drivers

## DIMENSIONS in inches [millimeters]





DESCRIPTION					
IHLP-1616AB-A1	0.47 $\mu$ H	$\pm 20\%$	EK	e3	
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD	

GLOBAL PART NUMBER					
I H L P	1 6 1 6 A B	E K	R 4 7	M	A 1
PRODUCT FAMILY		SIZE	PACKAGE CODE	INDUCTANCE	INDUCTANCE TOLERANCE
					SERIES
			EK = tape and reel	R47 = 0.47 $\mu$ H	M = $\pm 20\%$

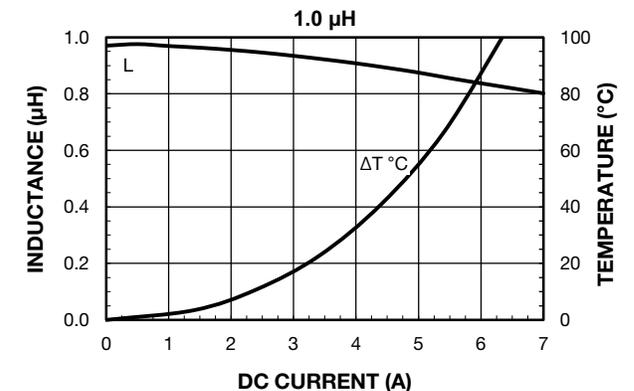
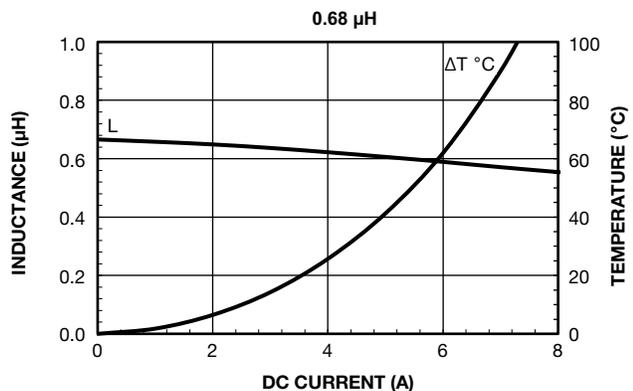
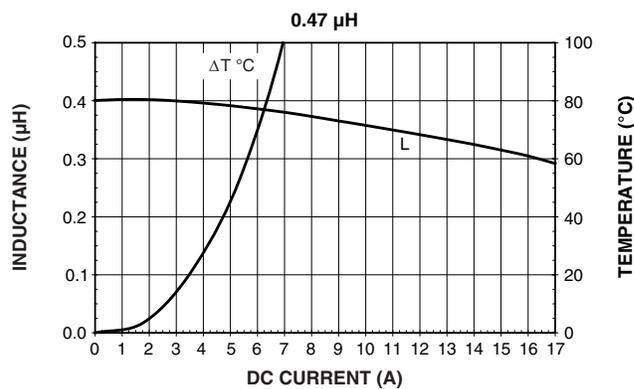
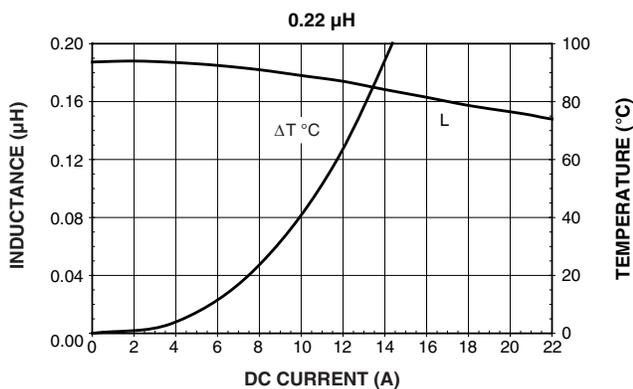
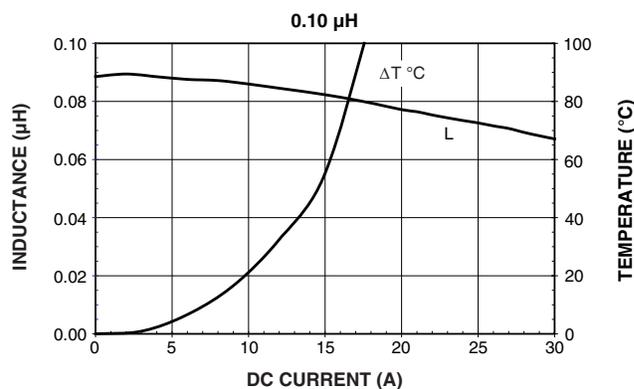
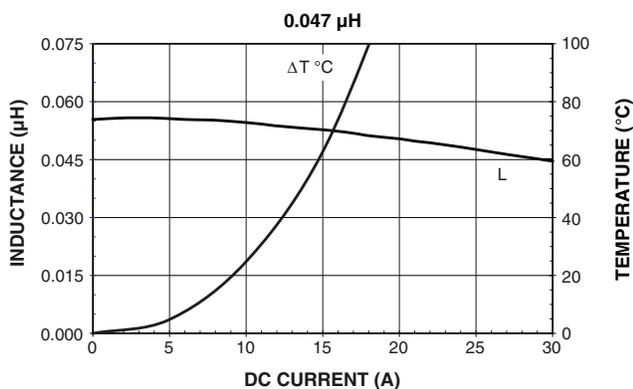
PACKAGE CODE OPTIONS
EK = tape and reel packaging (4800 pcs on 13-inch reel)
ER = tape and reel packaging (4000 pcs on 13-inch reel)

**Note**

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

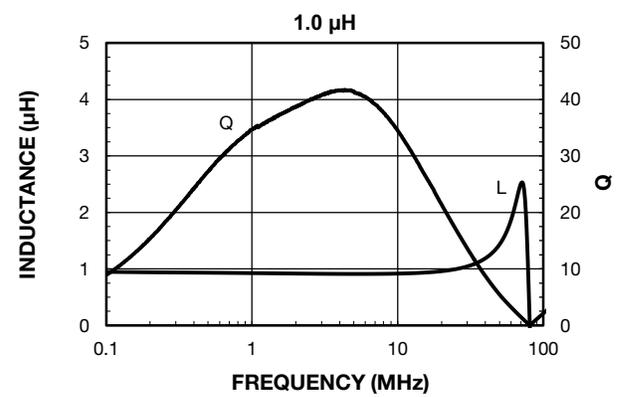
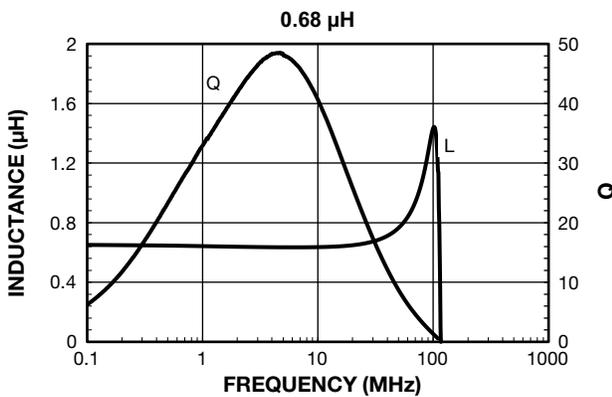
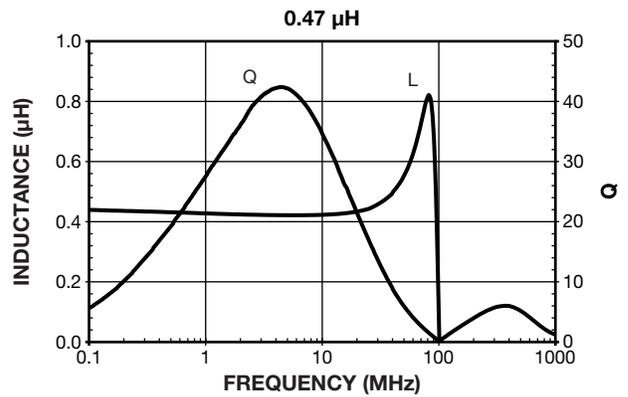
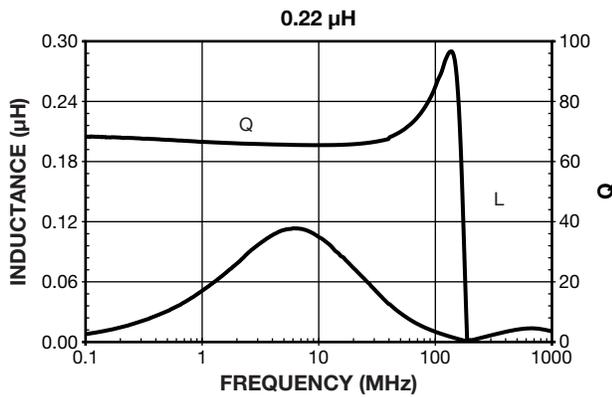
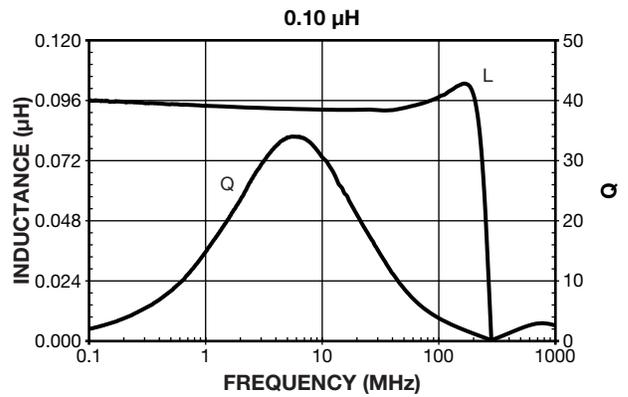
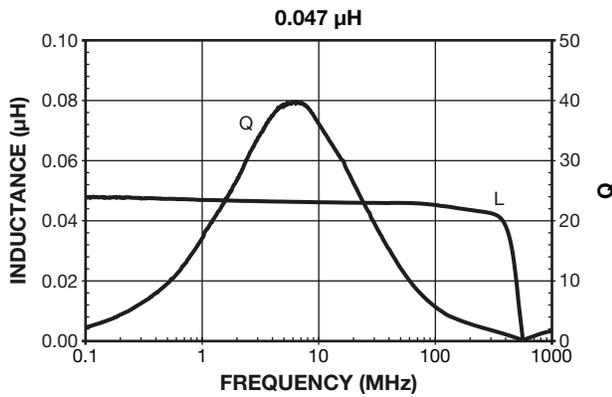


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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