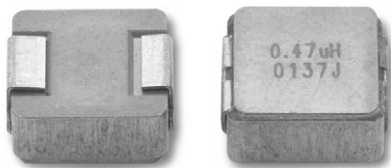


## IHLP® Automotive Inductors, Low DCR Series



### LINKS TO ADDITIONAL RESOURCES



3D Models



Calculators

STANDARD ELECTRICAL SPECIFICATIONS					
$L_0$ 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) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)
0.10	2.7	2.9	21.0	25.0	266
0.22	4.1	4.5	17.0	13.0	146
0.33	5.5	5.9	13.0	7.5	108
0.47	7.1	7.7	12.5	8.0	83
1.0	16.8	18.1	7.5	7.0	66
2.2	34.9	37.7	5.0	5.5	41
3.3	53.5	57.8	4.1	4.7	29
4.7	75.3	81.3	3.2	3.0	27
5.6	85.2	92.0	3.0	2.2	24
6.8	114.0	121.0	2.8	2.1	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, 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) = 40 V
- (1) DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- (2) DC current (A) that will cause  $L_0$  to drop approximately 20 %

### FEATURES

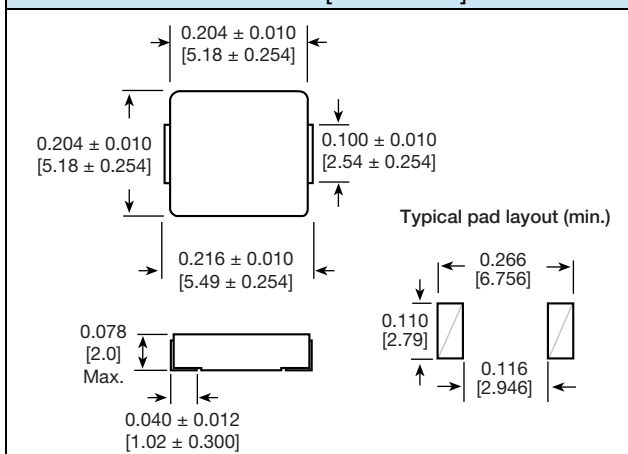
- Shielded construction
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specifications" table)
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



### 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 blower / HID lighting
- LED drivers

### DIMENSIONS in inches [millimeters]



### DESCRIPTION

<b>IHLP-2020BZ-1A</b>	<b>4.7 µH</b>	<b>± 20 %</b>	<b>EK</b>	<b>e3</b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

### GLOBAL PART NUMBER

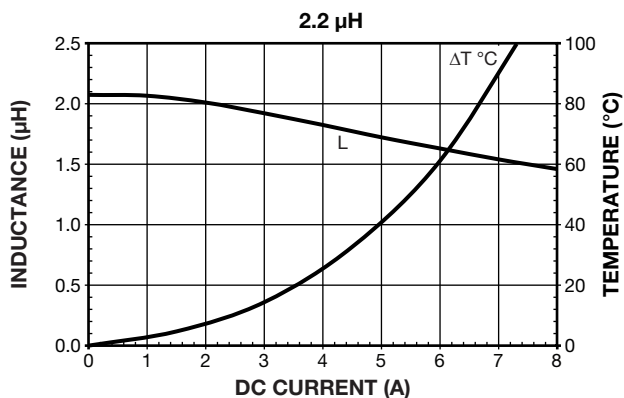
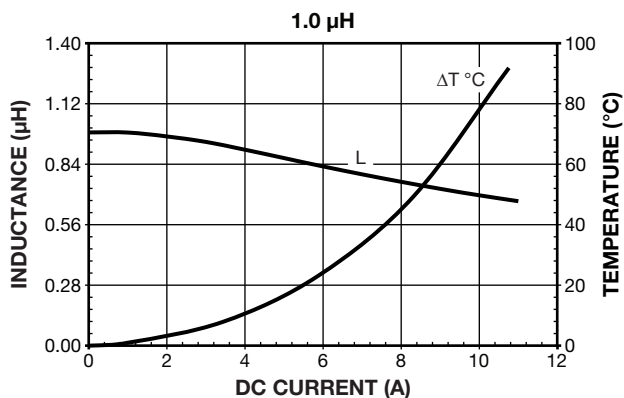
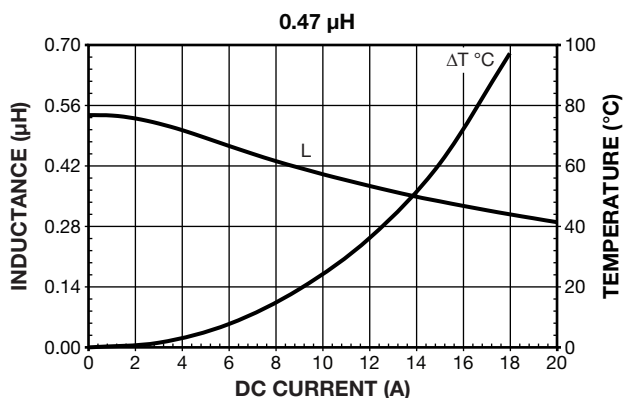
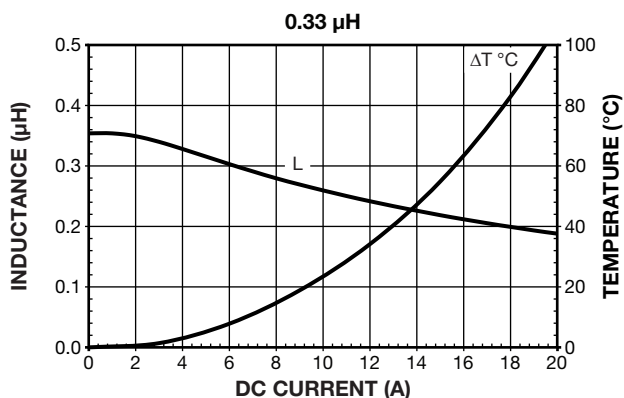
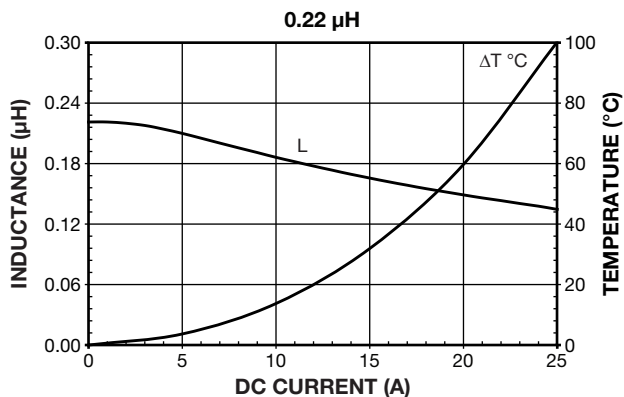
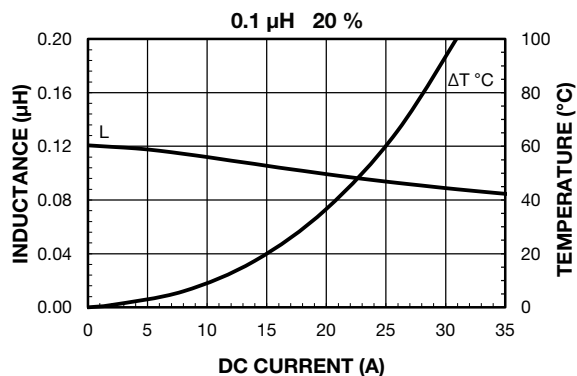
I	H	L	P	2	0	2	0	B	Z	E	K	4	R	7	M	1	A
PRODUCT FAMILY				SIZE						PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES	

### 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)

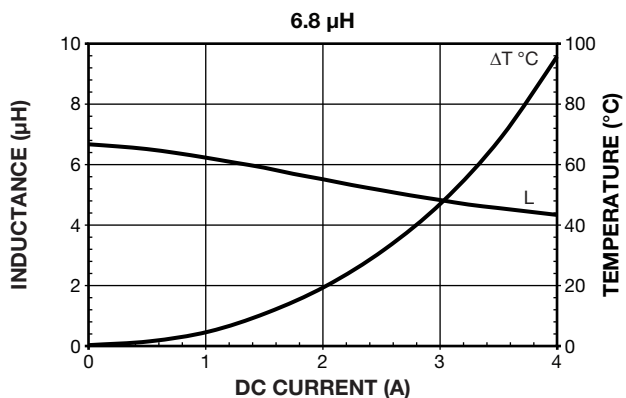
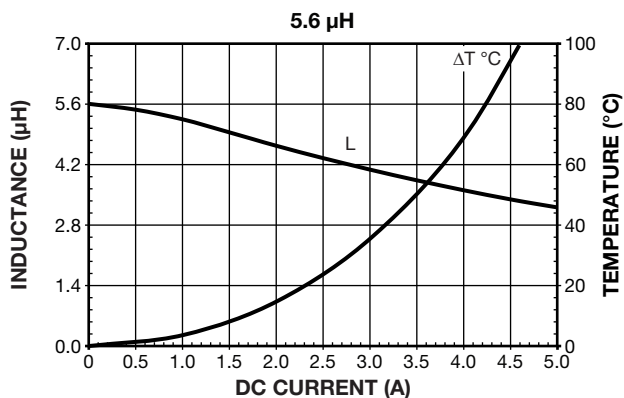
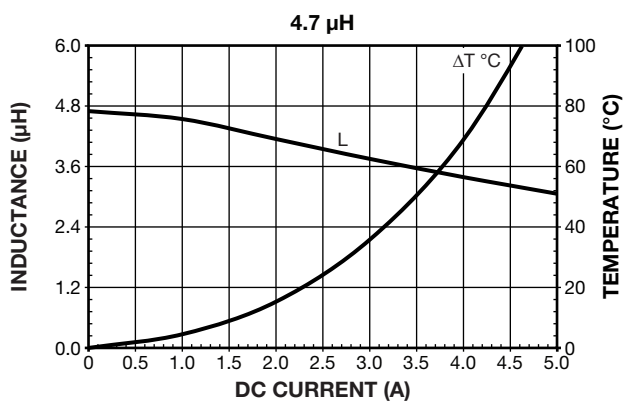
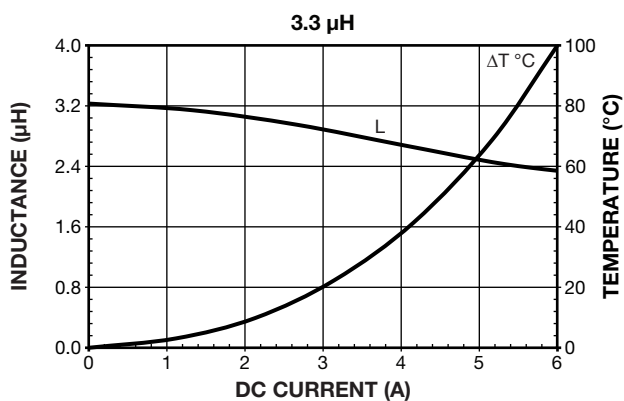


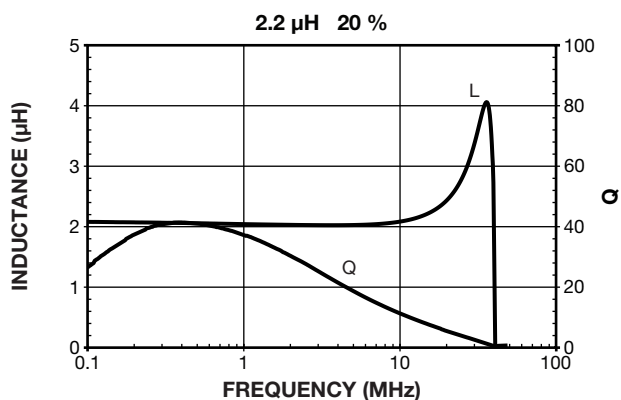
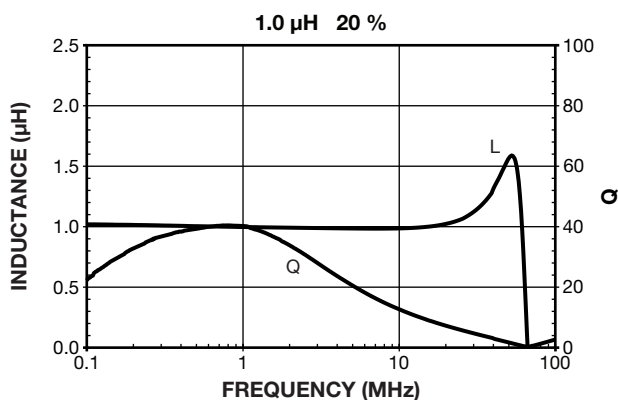
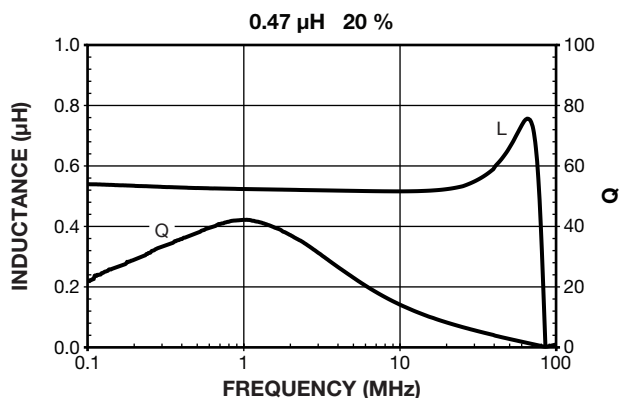
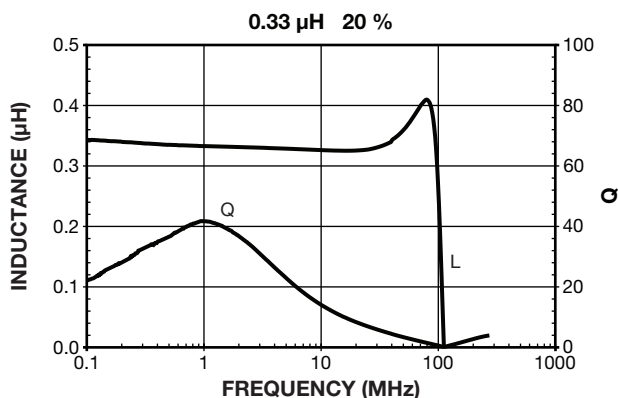
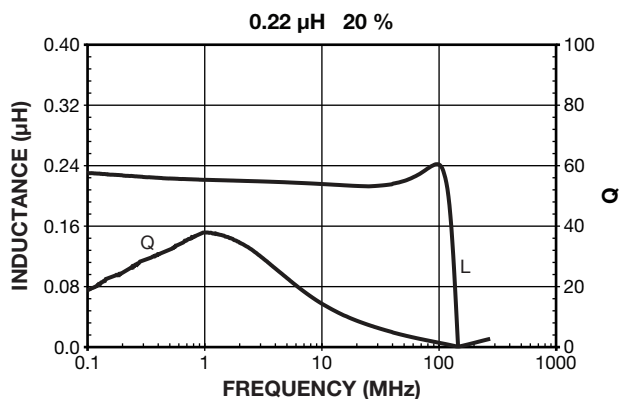
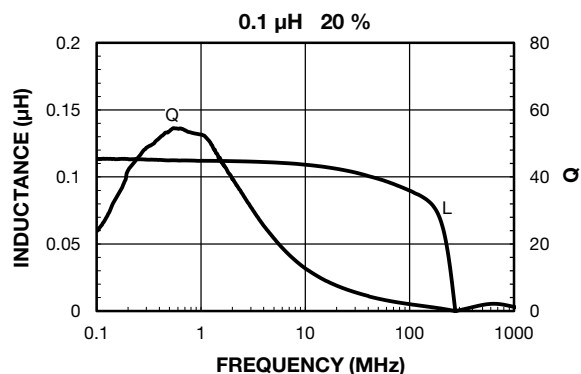
PERFORMANCE GRAPHS





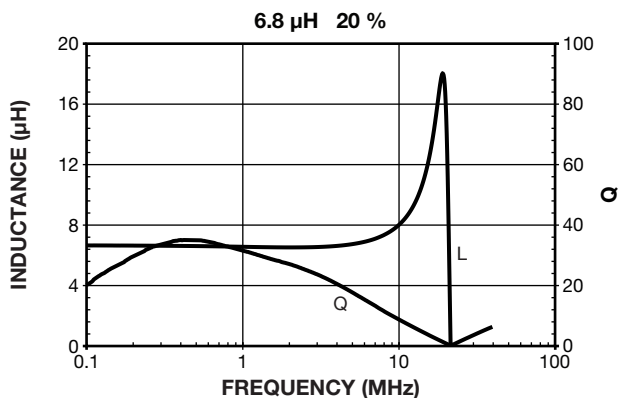
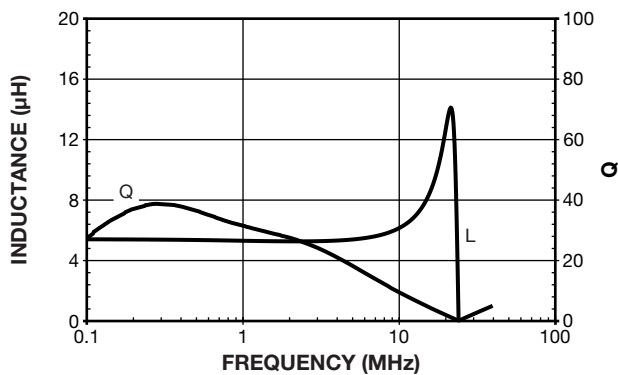
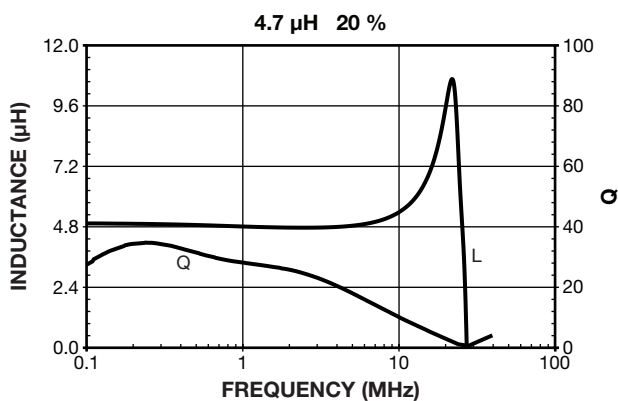
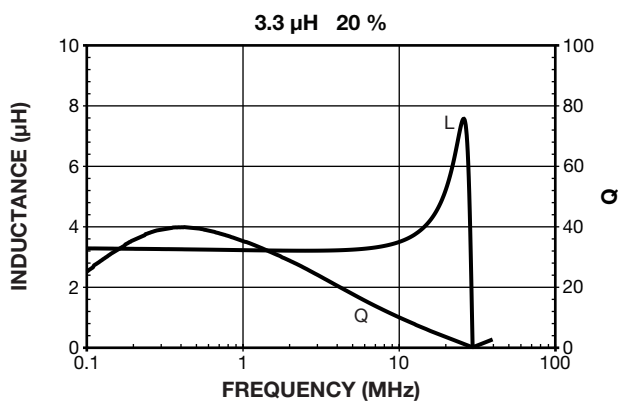
PERFORMANCE GRAPHS



**PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY**




PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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