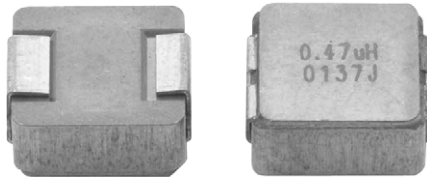


## IHLP® Automotive Inductors, Low DCR Series



AUTOMOTIVE GRADE


**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### LINKS TO ADDITIONAL RESOURCES



### FEATURES

- Shielded construction
- Frequency range up to 1.0 MHz
- Lowest DCR/µH, in this package size
- Powered iron composition provides soft saturation
- Handles high transient current spikes without hard saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- IHLP design; PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

### APPLICATIONS

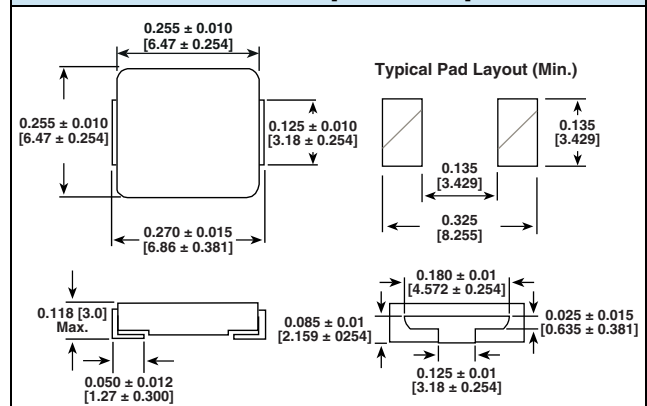
- Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors: windshield wipers / power seats / power mirrors / heating and ventilation blower / HID lighting
- LED drivers

STANDARD ELECTRICAL SPECIFICATIONS				
L <sub>0</sub> 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>
1.0	7.6	8.0	12.5	9.5
2.2	15.7	16.5	9.0	7.0
3.3	24.8	26.0	7.0	6.5
4.7	31.8	33.4	6.0	4.0
6.8	44.6	46.8	5.5	4.0
8.2	52.3	54.9	5.0	4.0
10	67.8	71.2	4.0	3.5
15	88.4	95.0	3.7	3.2
22	128.9	135.0	2.9	2.5

#### 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
- (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 %

### DIMENSIONS in inches [millimeters]



DESCRIPTION				
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD
IHLP-2525CZ-1A	1.0 µH	± 20 %	ER	e3

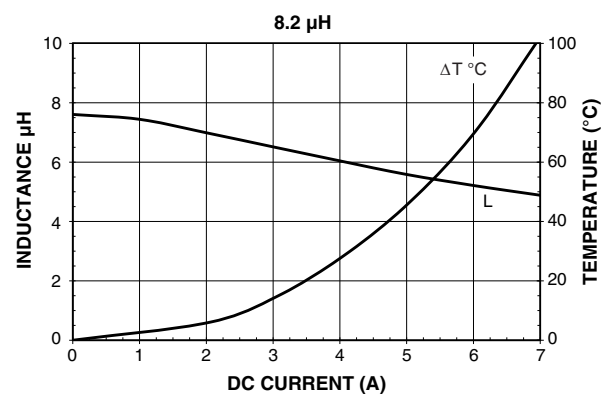
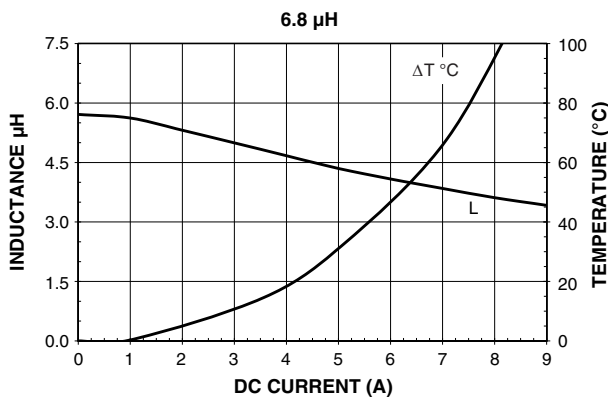
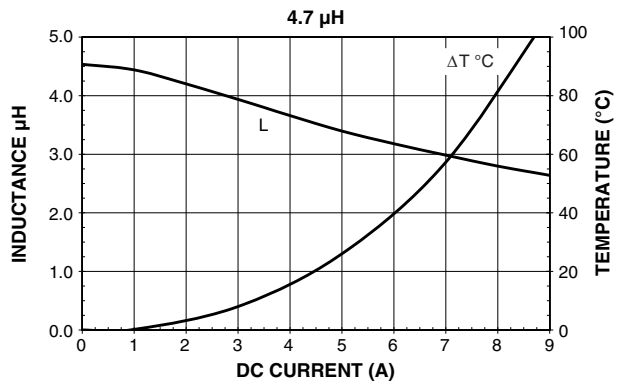
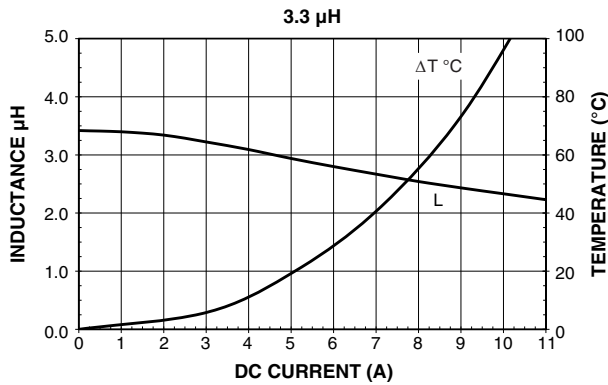
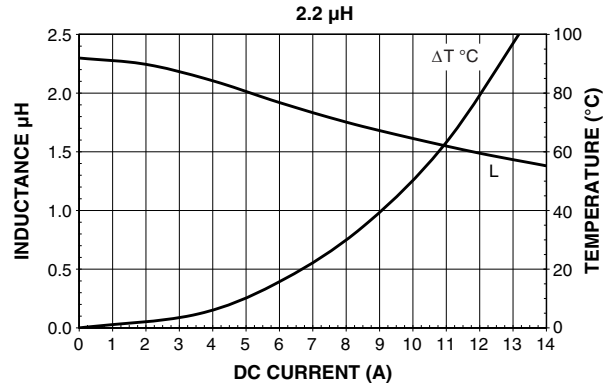
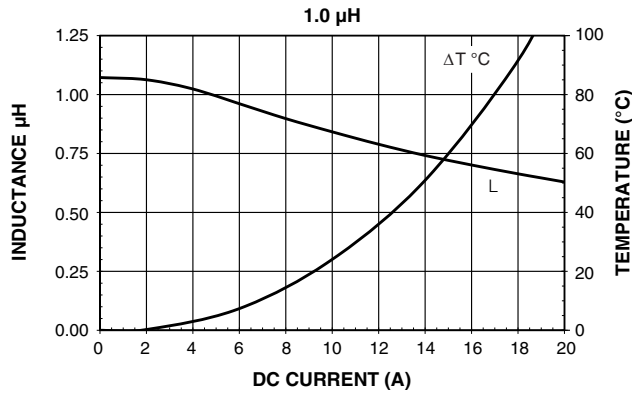
GLOBAL PART NUMBER											
I	H	L	P	2	5	2	5	C	Z	E R 1 R 0 M 1 A	
PRODUCT FAMILY				SIZE				PACKAGE CODE	INDUCTANCE VALUE	TOL.	SERIES

 PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)

This Vishay product is protected by one or more United States and international patents.

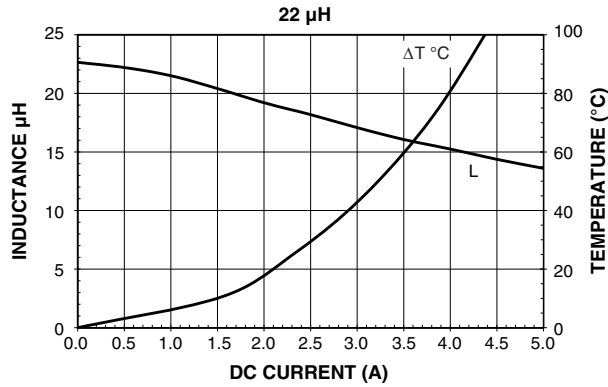
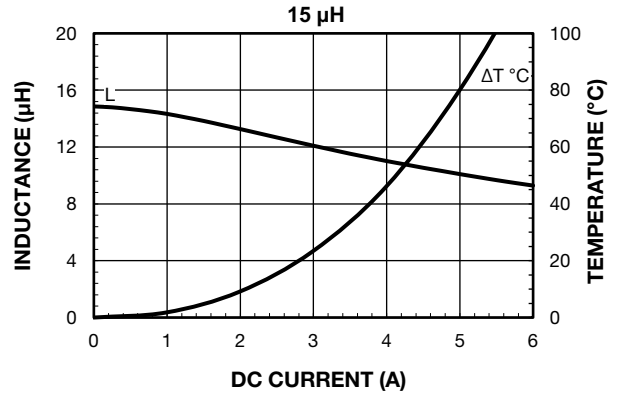
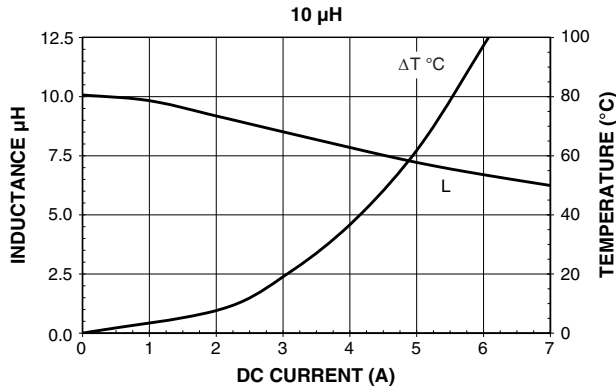


PERFORMANCE GRAPHS



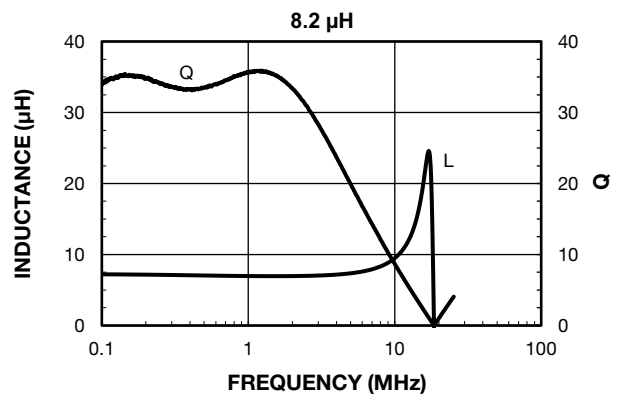
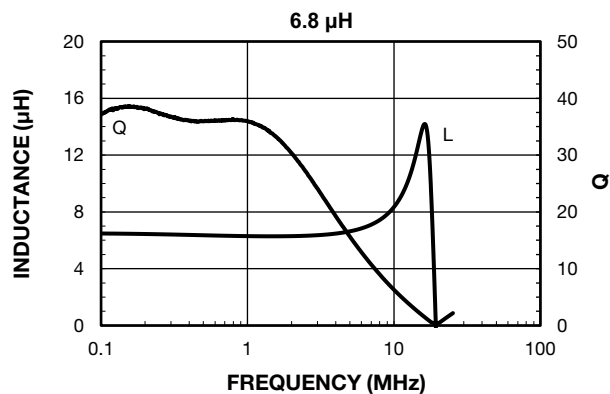
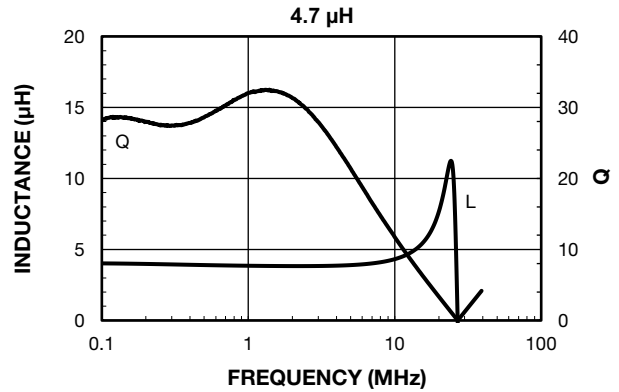
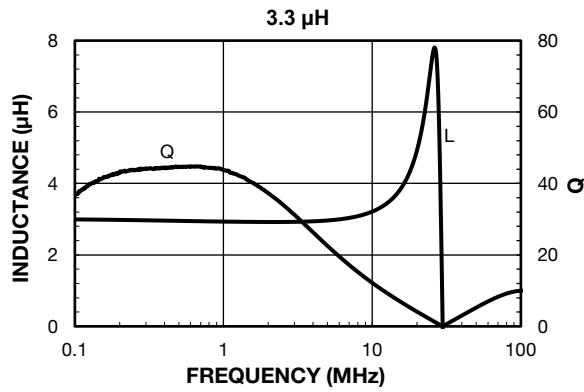
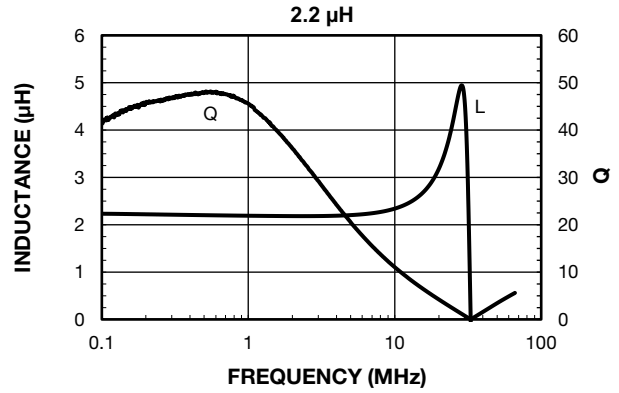
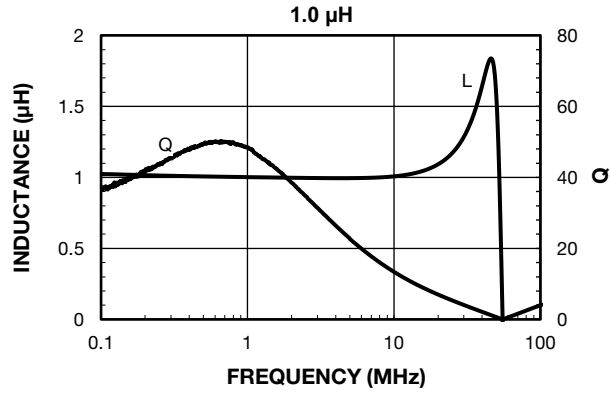


PERFORMANCE GRAPHS



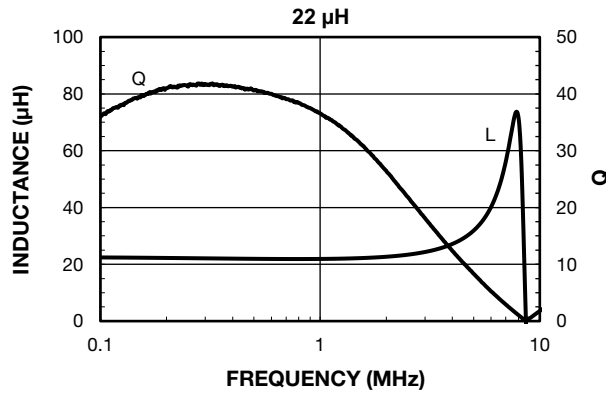
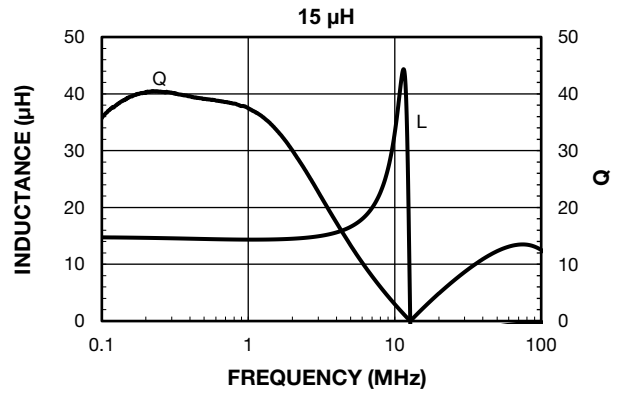
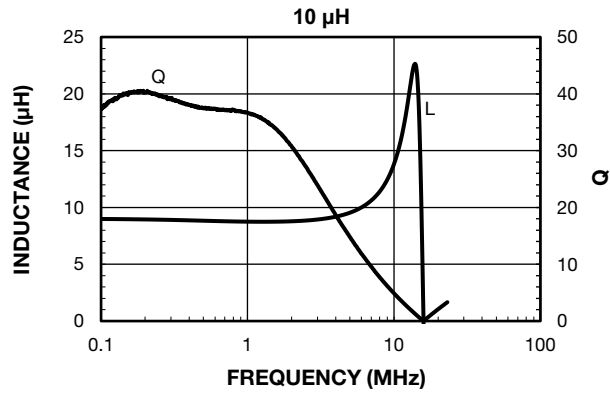


PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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