

## Low Profile, High Current IHLP® Inductors



Manufactured under one or more of the following:  
**US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.**  
 Several foreign patents, and other patents pending.

STANDARD ELECTRICAL SPECIFICATIONS				
$L_0$ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A ( $\mu$ H)	DCR TYP. 25 °C (m $\Omega$ )	DCR MAX. 25 °C (m $\Omega$ )	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>
0.19	0.70	0.80	40	46
0.24	0.85	0.95	33	44
0.36	1.05	1.15	32	30
0.47	1.53	1.68	30	30
0.56	1.60	1.80	32	22
0.78	1.90	2.10	27	22
1.0	2.30	2.50	25	20
1.8	4.50	5.00	17	16
2.0	5.20	5.80	16	14
4.7	12.90	14.20	9.5	7.6
6.8	17.50	19.30	9.0	7.5
10.0	27.80	30.50	7.5	7.1
15	40.90	45.00	6.25	6.0
22	60.40	66.00	5.0	4.5
33	87.5	94.5	4.4	4.0
47	132.0	145.0	3.3	3.0

**Notes**

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +125 °C
- DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- DC current (A) that will cause  $L_0$  to drop approximately 20 %
- 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.

**FEATURES**

- Shielded construction
- Frequency range up to 1.0 MHz
- Lowest DCR/ $\mu$ H, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

AUTOMOTIVE GRADE

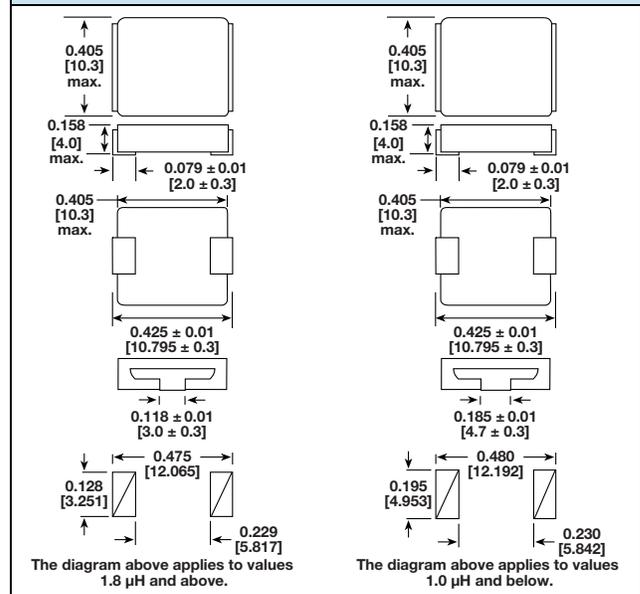


RoHS COMPLIANT  
 HALOGEN FREE

**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]

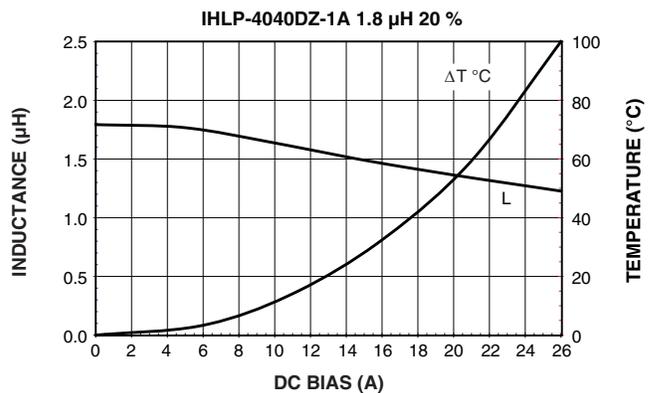
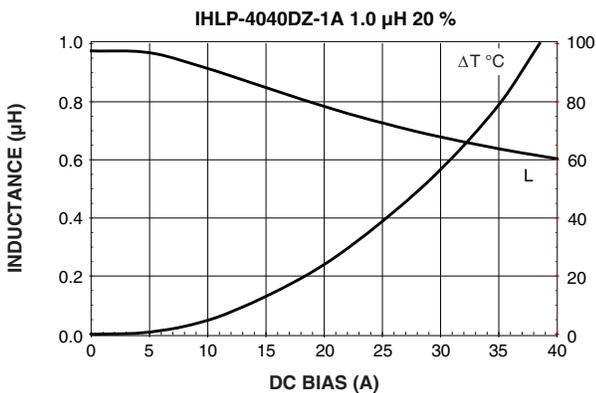
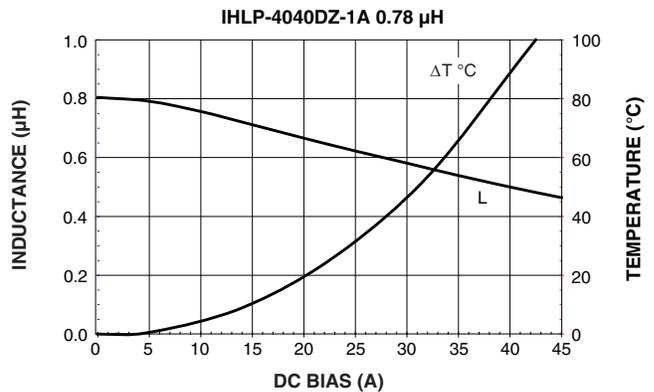
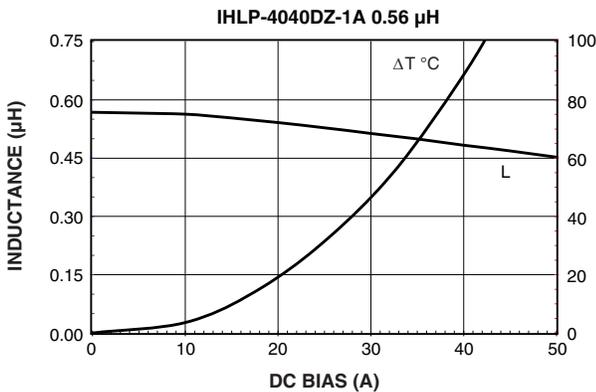
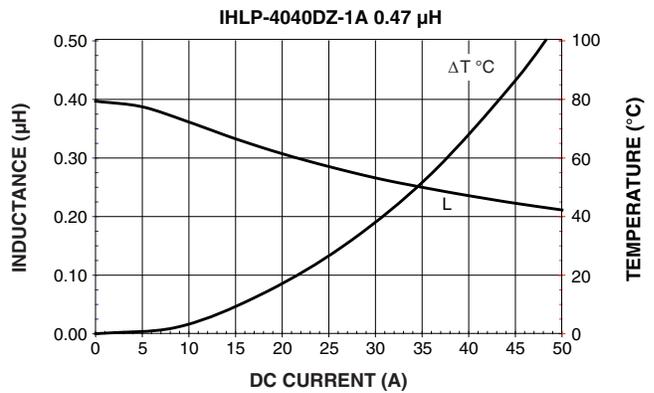
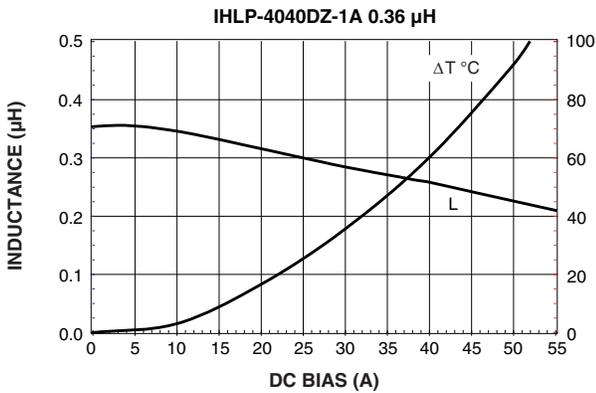
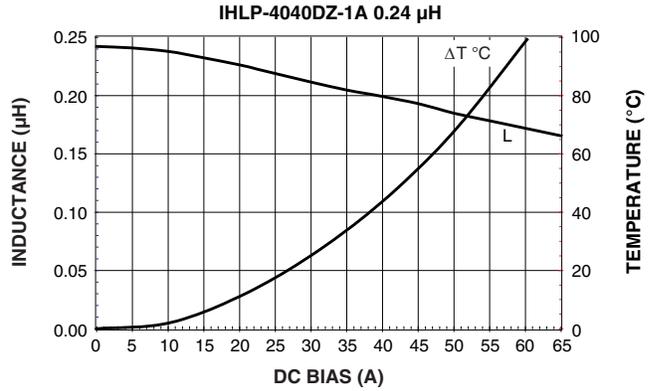
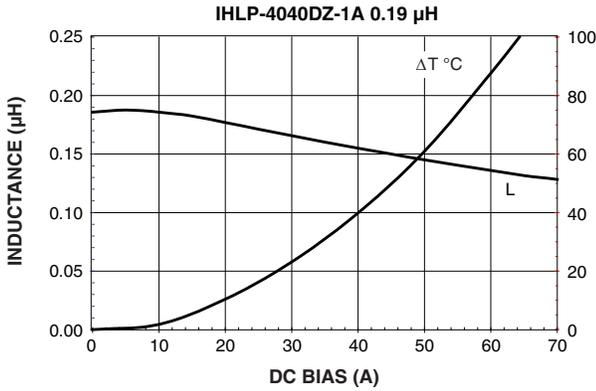


DESCRIPTION				
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD
IHLP-4040DZ-1A	2.0 $\mu$ H	± 20 %	ER	e3

GLOBAL PART NUMBER											
I	H	L	P	4	0	4	0	D	Z	E R 2 R 0 M 1 A	
PRODUCT FAMILY				SIZE				PACKAGE CODE	INDUCTANCE VALUE	TOL.	SERIES

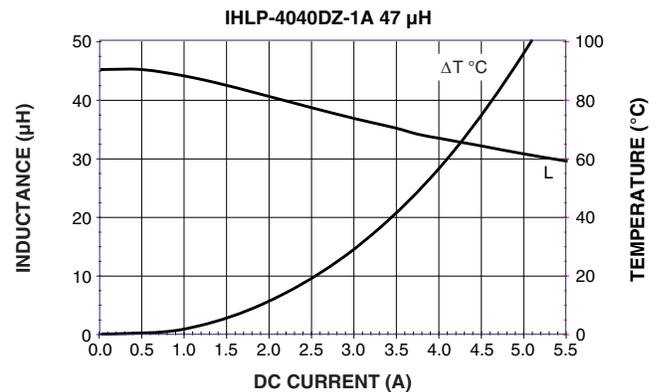
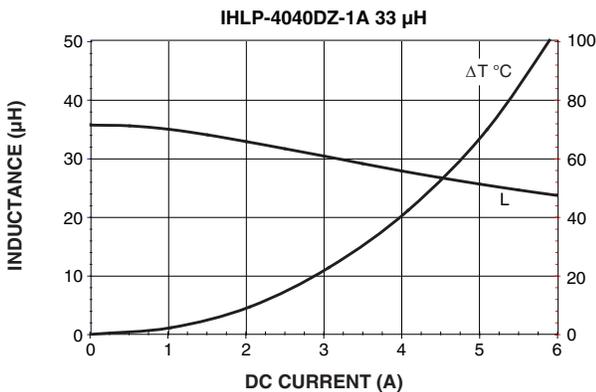
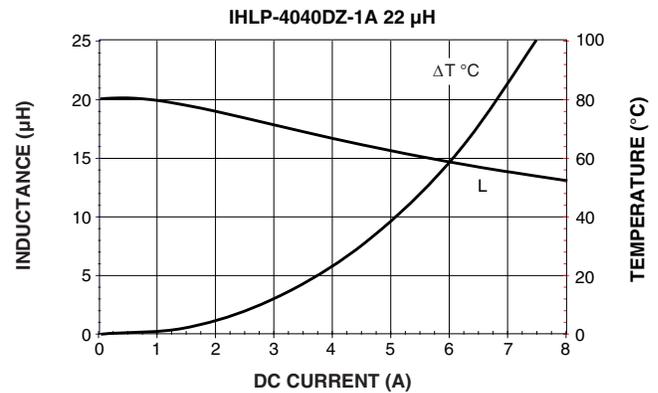
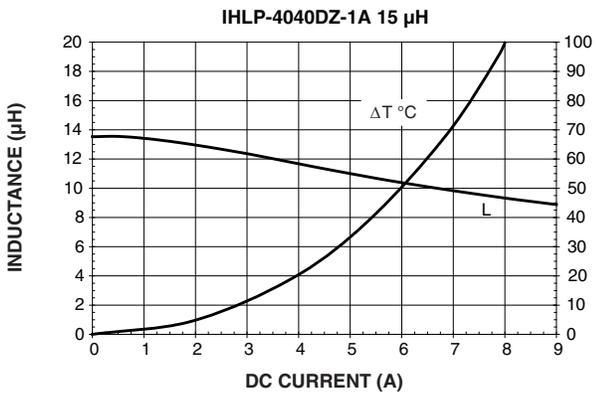
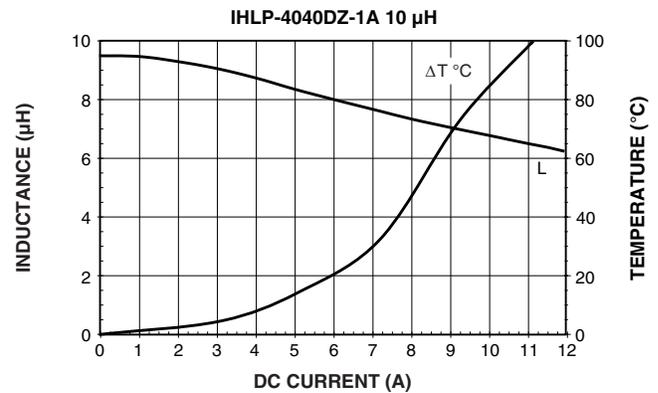
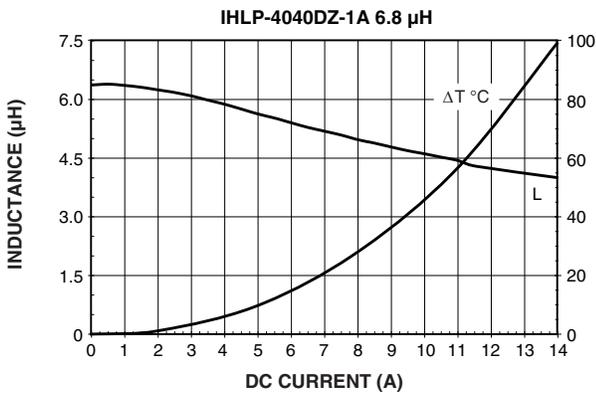
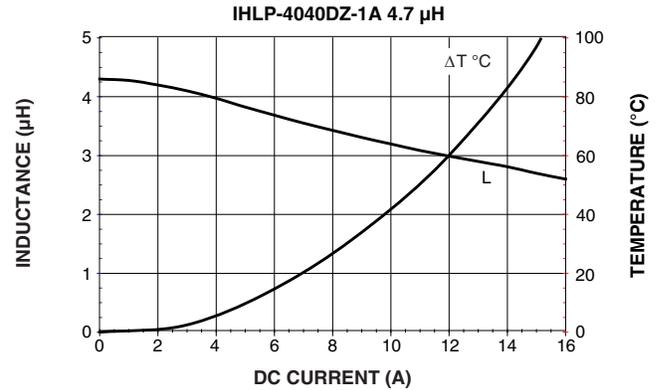
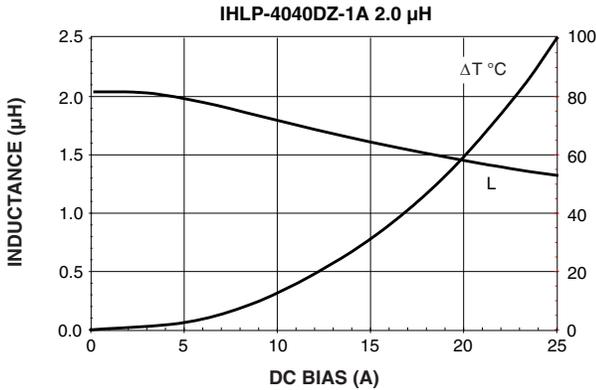


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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