

# **IHLP® Tin / Lead Inductors, Low DCR Series**



## **FEATURES**

- Magnetically shielded construction
- 11.5 mm x 10.2 mm x 4.0 mm SMD package
- Low DCR
- Termination: tin / lead (60Sn40Pb) plated (not dipped) terminals
- IHLP design; PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)

## **LINKS TO ADDITIONAL RESOURCES**



## **APPLICATIONS**

- DC/DC power supplies
- Smart grid and solar
- Telecommunications equipment
- Noise suppression and filtering

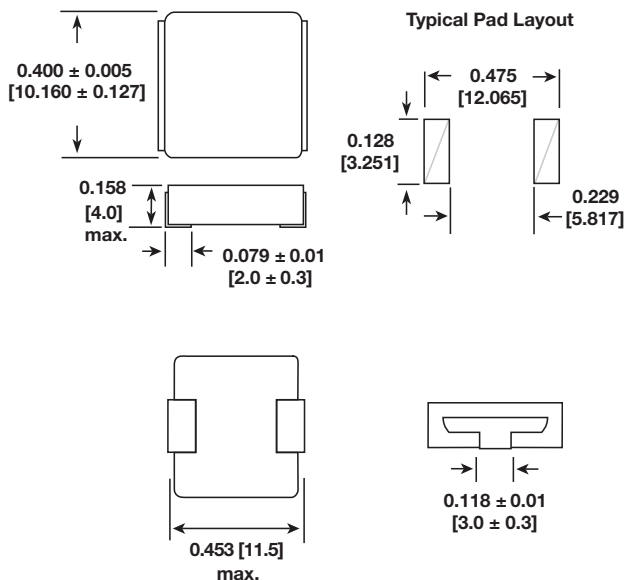
<b>STANDARD ELECTRICAL SPECIFICATIONS</b>					
<b>PART NUMBER</b>	<b>L<sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)</b>	<b>DCR TYP. 25 °C (mΩ)</b>	<b>DCR MAX. 25 °C (mΩ)</b>	<b>HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup></b>	<b>SATURATION CURRENT DC TYP. (A) <sup>(2)</sup></b>
IHLP4040DZRZ19M1L	0.19	0.70	0.80	40	46
IHLP4040DZRZ22M1L	0.22	0.85	0.95	33	44
IHLP4040DZRZ24M1L	0.24	0.85	0.95	33	44
IHLP4040DZRZ36M1L	0.36	1.05	1.35	32	30
IHLP4040DZRZ47M1L	0.47	1.53	1.68	30	30
IHLP4040DZRZ56M1L	0.56	1.61	1.80	32	22
IHLP4040DZRZ78M1L	0.78	1.80	1.90	27	22
IHLP4040DZRZ1R0M1L	1.0	2.30	2.50	25	20
IHLP4040DZRZ1R8M1L	1.8	4.50	5.00	17	16
IHLP4040DZRZ2R0M1L	2.0	5.20	5.80	16	14
IHLP4040DZRZ4R7M1L	4.7	12.90	14.20	9.5	7.6
IHLP4040DZRZ6R8M1L	6.8	17.50	19.30	9.0	7.5
IHLP4040DZRZ100M1L	10	27.80	30.50	7.5	7.1
IHLP4040DZRZ150M1L	15	40.90	45.00	6.25	6.0
IHLP4040DZRZ180M1L	18	46.40	51.90	5.6	4.6
IHLP4040DZRZ220M1L	22	60.40	66.00	5.0	4.5
IHLP4040DZRZ330M1L	33	87.50	94.50	4.4	4.0
IHLP4040DZRZ470M1L	47	132.0	145.0	3.3	3.0
IHLP4040DZRZ101M1L	100	249.0	270.0	2.5	2.25

## **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 ΔT of 40 °C
- <sup>(2)</sup> DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %

**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.**

**DIMENSIONS** in inches [millimeters]

**DESCRIPTION**
**IHLP-4040DZ-1L**  
MODEL

**2.0  $\mu$ H**  
INDUCTANCE VALUE

**± 20 %**  
INDUCTANCE TOLERANCE

**RZ**  
PACKAGE CODE

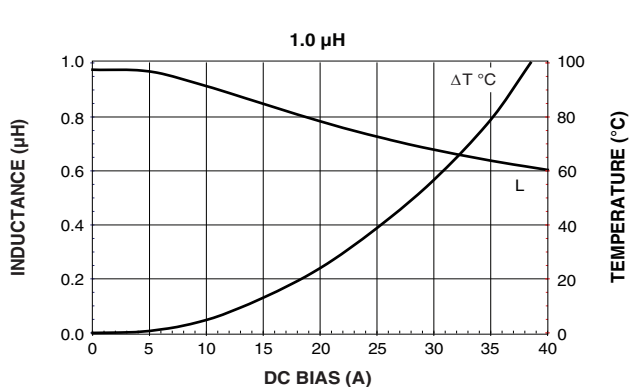
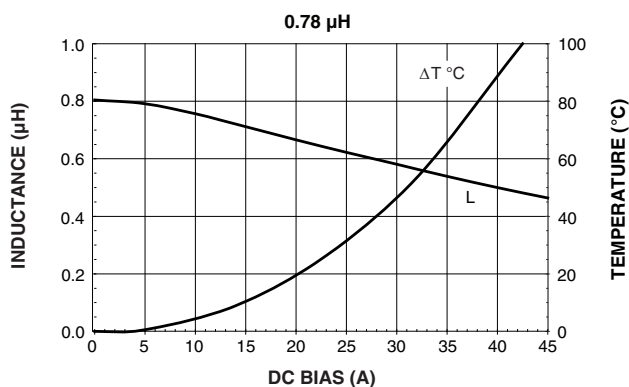
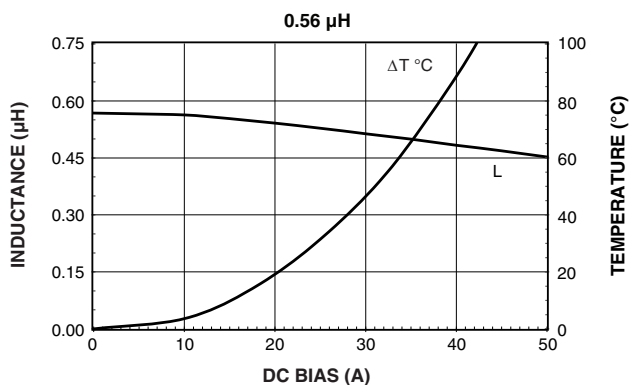
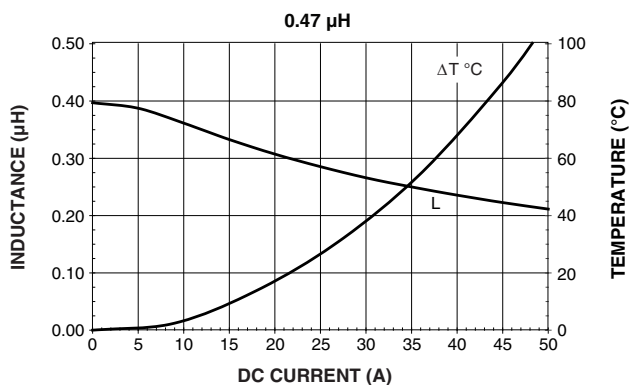
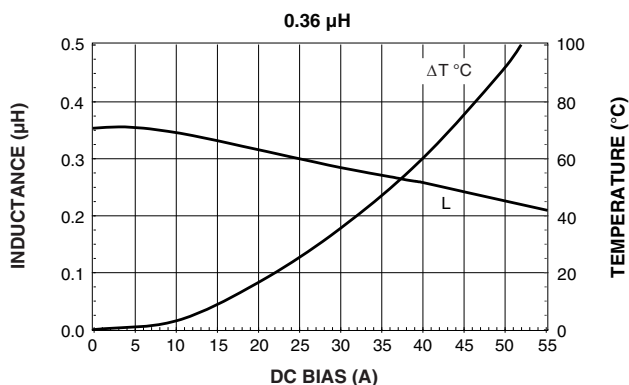
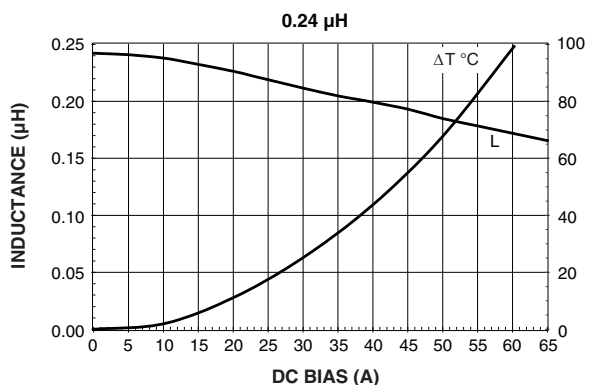
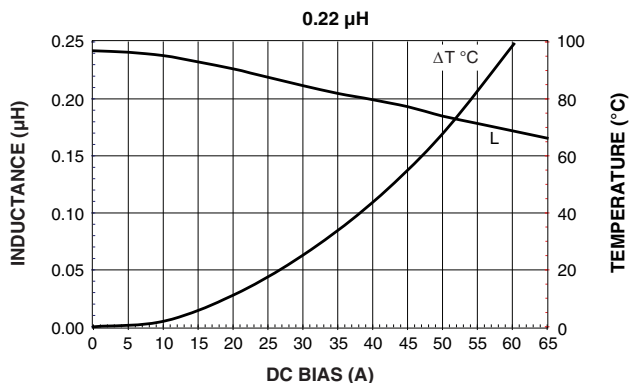
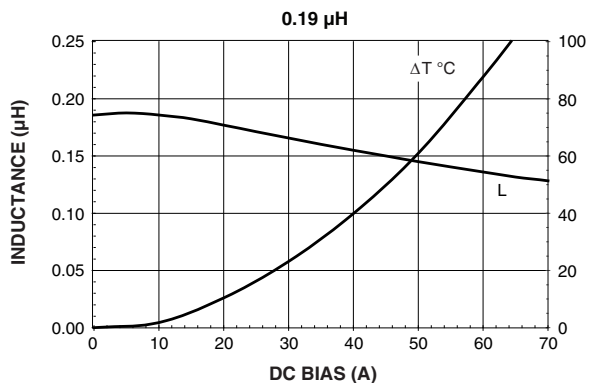
**GLOBAL PART NUMBER**

I	H	L	P	4	0	4	0	D	Z	R	Z	2	R	0	M	1	L
PRODUCT FAMILY				SIZE					PACKAGE CODE		INDUCTANCE VALUE			TOLERANCE		SERIES	

**RZ** = tape and reel + SnPb  
**SL** = tape and reel + SnPb +  
 single lot date code

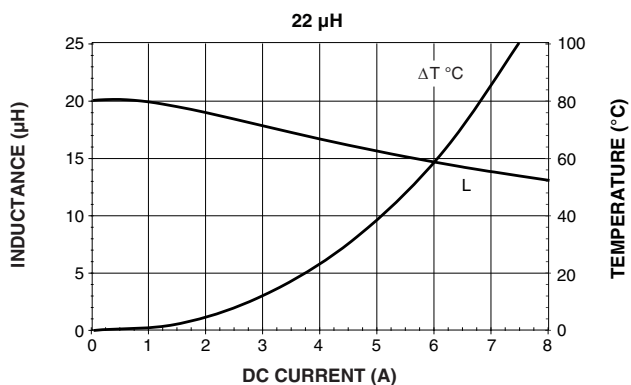
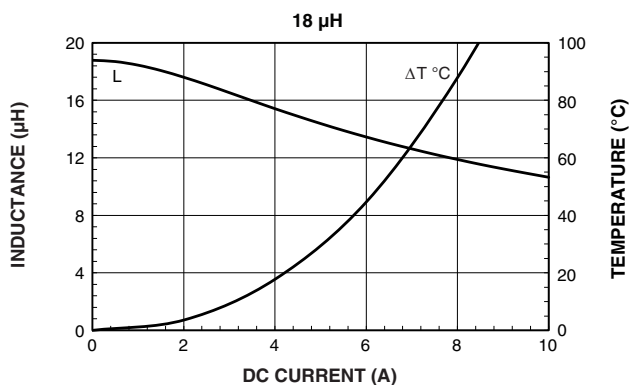
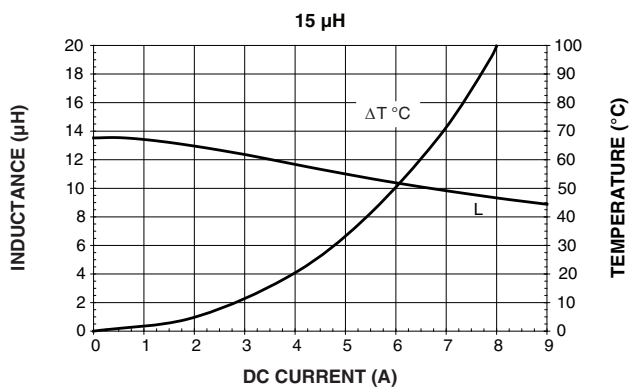
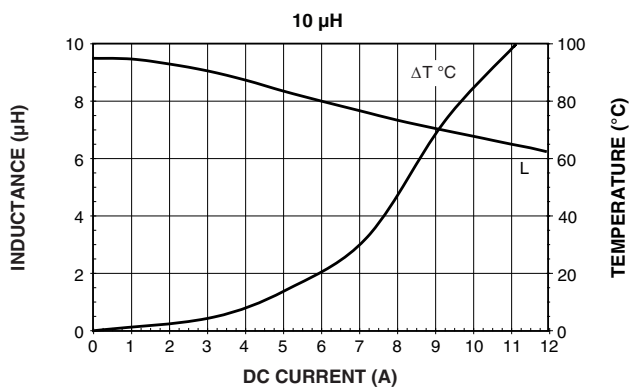
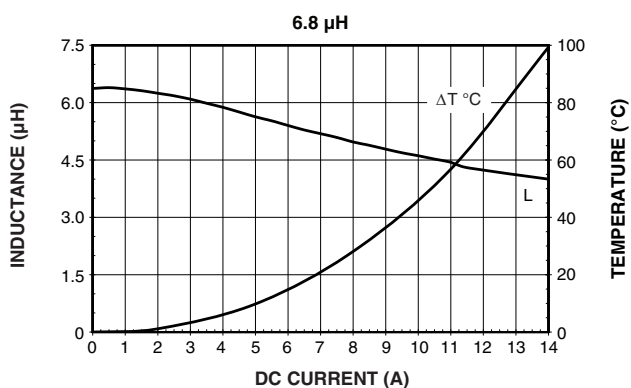
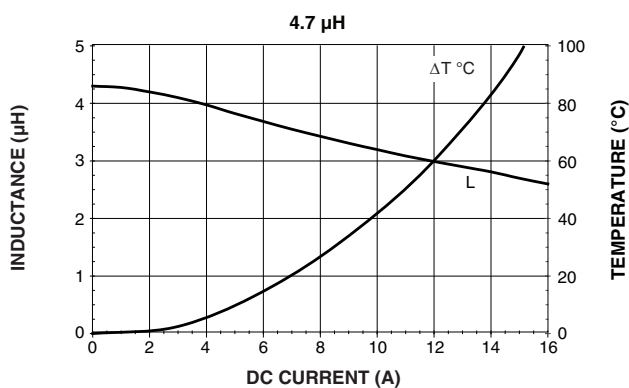
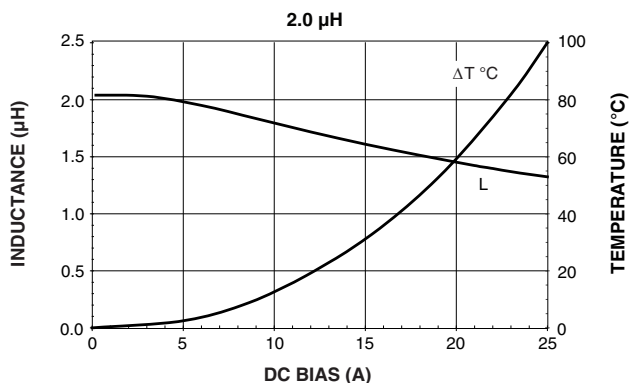
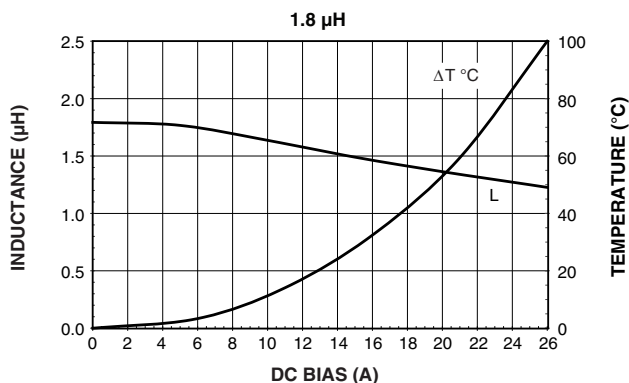


PERFORMANCE GRAPHS



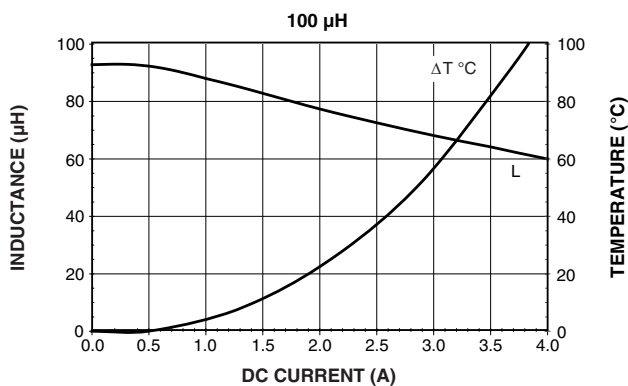
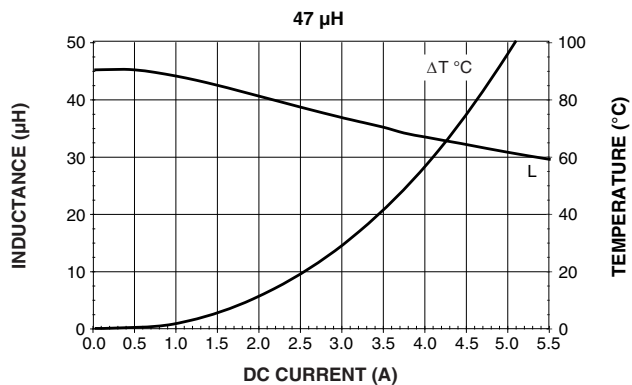
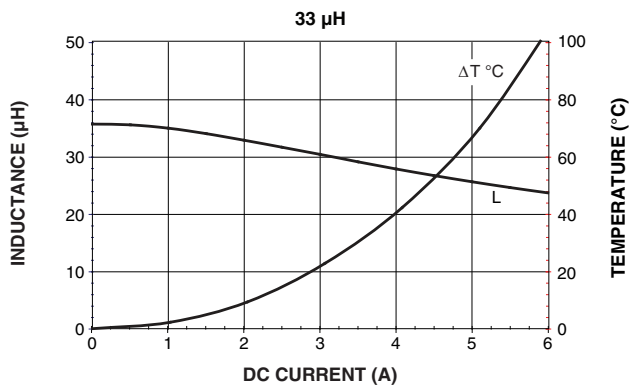


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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