

IHLP® Automotive Inductors, Low DCR Series



LINKS TO ADDITIONAL RESOURCES



FEATURES

- 10.8 mm x 10.16 mm x 4.0 mm package
- Magnetically shielded metal construction
- Optimized for low DCR for up to 20 % reduction in dc power losses over other IHLP series
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



APPLICATIONS

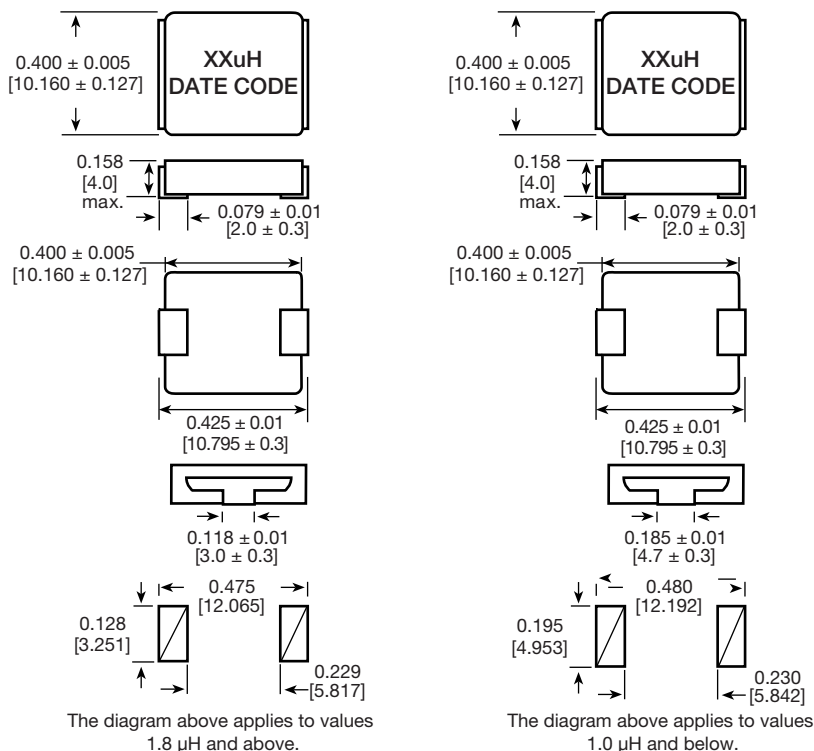
- Engine and transmission control units
- DC/DC converters for infotainment, navigation systems, lighting
- Noise suppression and filtering
- LED drivers

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	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) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾
IHLP4040DZE_R19M1A	0.19	0.70	0.80	40	46
IHLP4040DZE_R24M1A	0.24	0.85	0.95	33	44
IHLP4040DZE_R36M1A	0.36	1.05	1.15	32	30
IHLP4040DZE_R47M1A	0.47	1.53	1.68	30	30
IHLP4040DZE_R56M1A	0.56	1.61	1.80	32	22
IHLP4040DZE_R78M1A	0.78	1.80	1.90	27	22
IHLP4040DZE_1R0M1A	1.0	2.30	2.50	25	20
IHLP4040DZE_1R8M1A	1.8	4.50	5.00	17	16
IHLP4040DZE_2R0M1A	2.0	5.20	5.80	16	14
IHLP4040DZE_4R7M1A	4.7	12.9	14.2	9.5	7.6
IHLP4040DZE_6R8M1A	6.8	17.5	19.3	9.0	7.5
IHLP4040DZE_100M1A	10	27.8	30.5	7.5	7.1
IHLP4040DZE_150M1A	15	40.9	45.0	6.25	6.0
IHLP4040DZE_180M1A	18	46.40	51.90	5.6	4.6
IHLP4040DZE_220M1A	22	60.4	66.0	5.0	4.5
IHLP4040DZE_330M1A	33	87.5	94.5	4.4	4.0
IHLP4040DZE_470M1A	47	132.0	145.0	3.3	3.0
IHLP4040DZE_101M1A	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, PCB 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 (40 V max. for 100 μH value)
- Moisture Sensitivity Level (MSL) = 1 floor life - unlimited
- Resistance to solder heat: 260 °C for 30 s (3 times max. through reflow)
- ⁽¹⁾ DC current (A) that will cause an approximate ΔT of 40 °C
- ⁽²⁾ DC current (A) that will cause L₀ to drop approximately 20 %

DIMENSIONS in inches [millimeters]

DESCRIPTION

IHLP-4040DZ-1A	2.0 µH	± 20 %	EK	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I H L P	4 0 4 0 D Z	E K	2 R 0	M	1 A
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	SERIES
		EK = tape and reel	2R0 = 2.0 µH	M = ± 20 %	

PACKAGE CODE OPTIONS

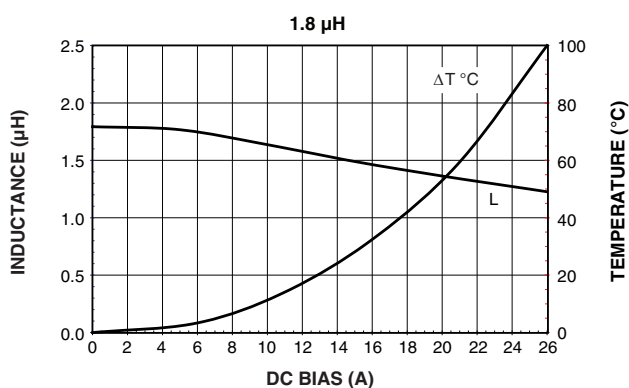
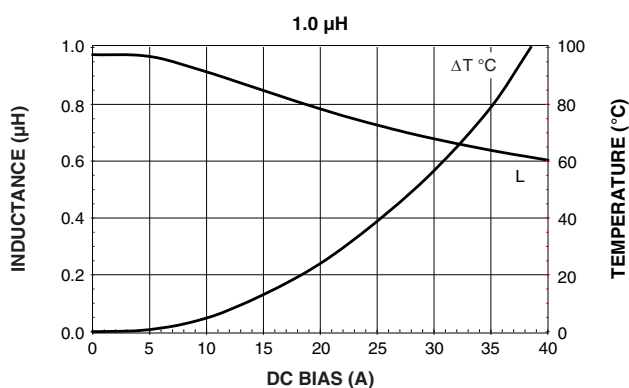
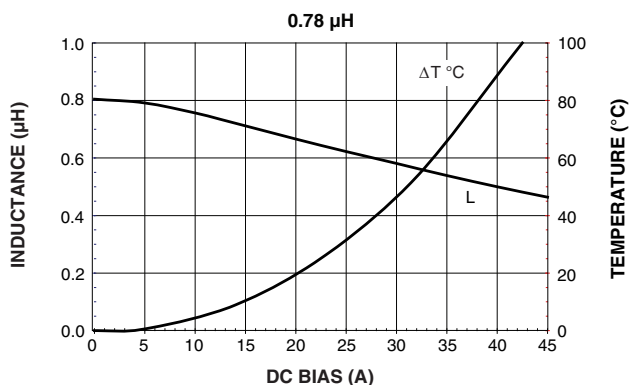
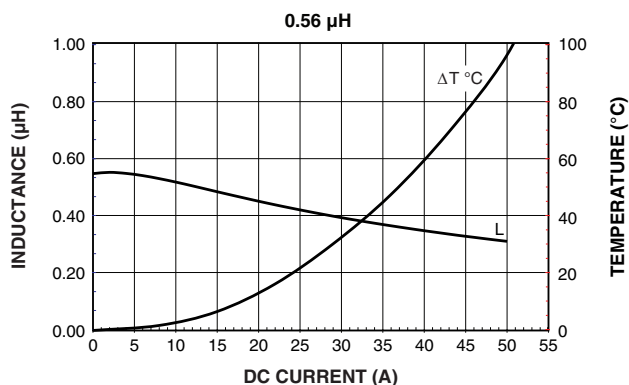
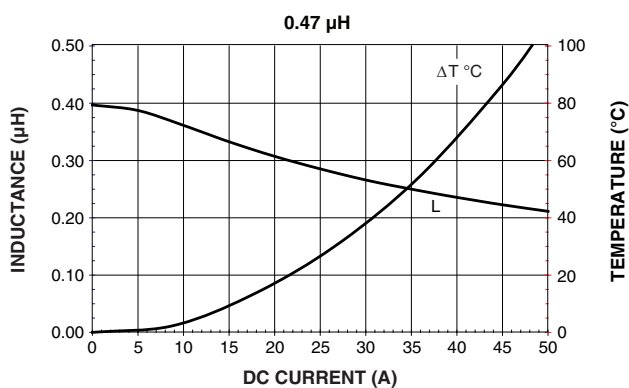
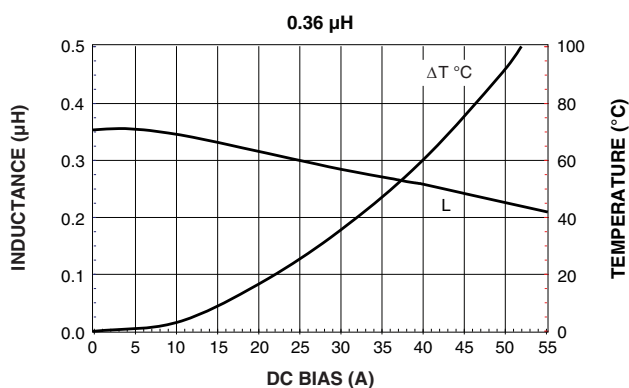
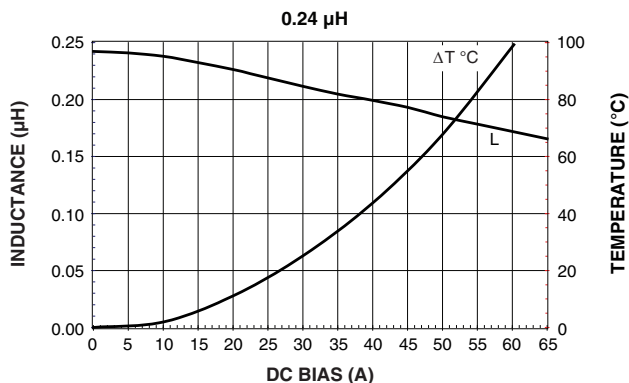
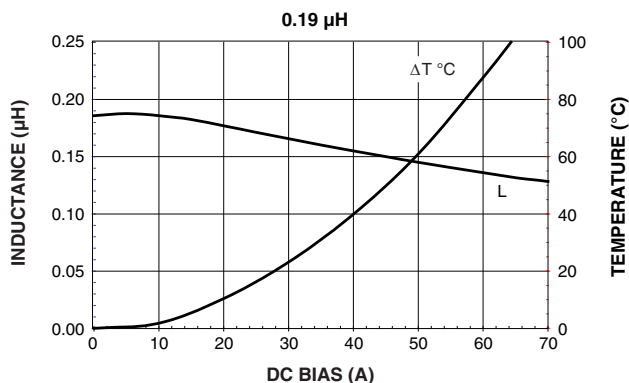
- ER** = tape and reel packaging (500 piece reel)
- EK** = tape and reel packaging (1000 piece reel)

Notes

- For additional packaging details see "[Packaging Methods](#)"
- 1000 piece reel for IHLP4040DZ models contains tape pitch change

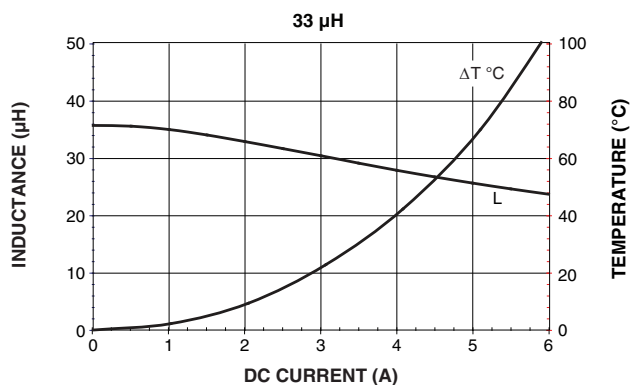
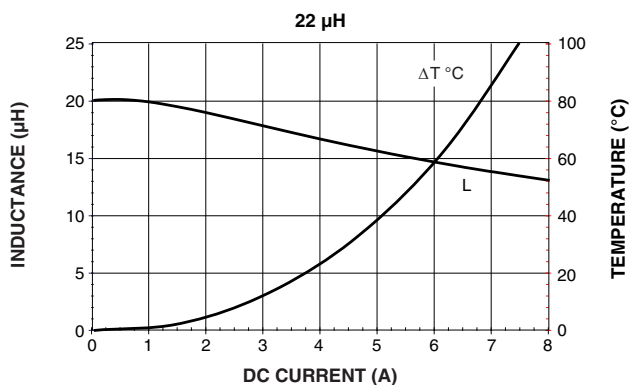
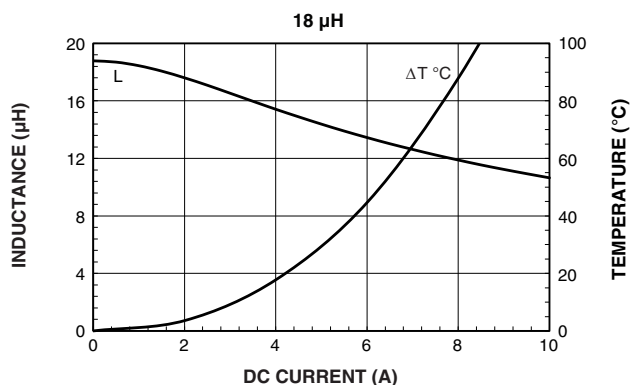
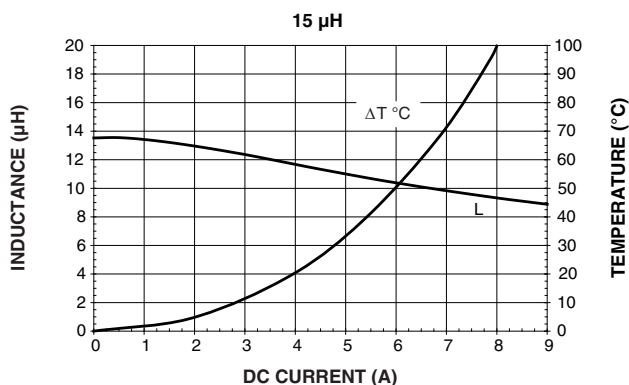
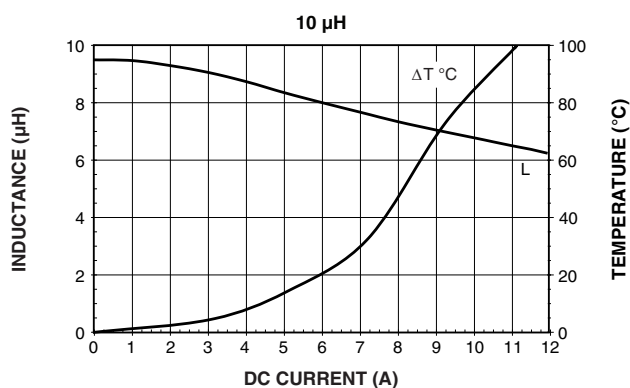
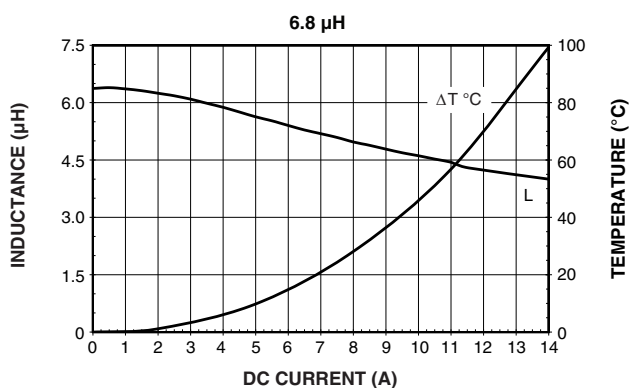
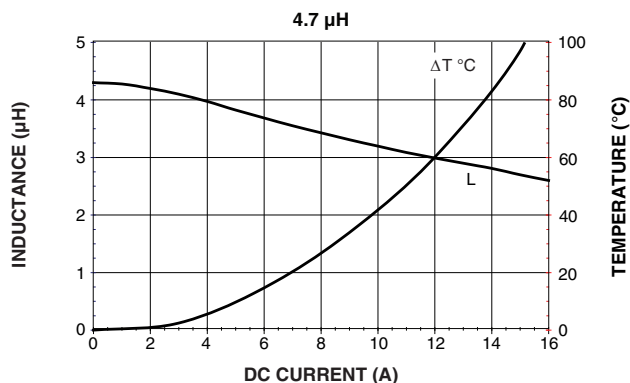
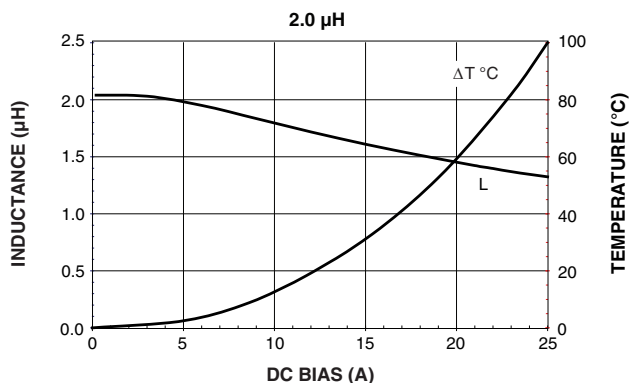


PERFORMANCE GRAPHS



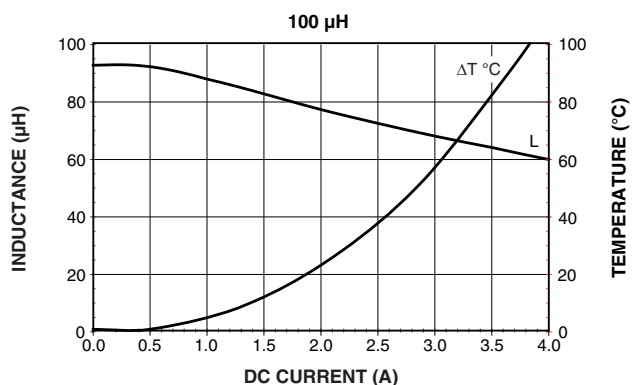
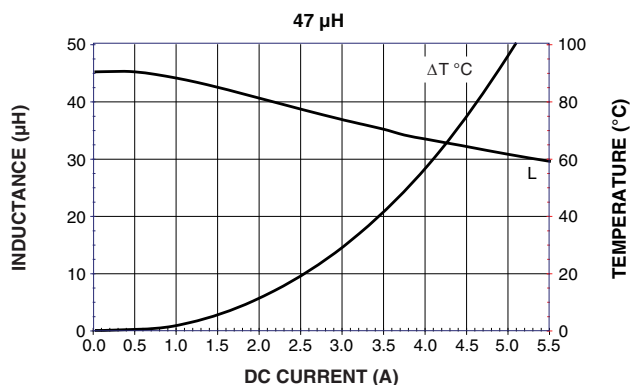


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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