



IHLP® Automotive Power Inductors, High Temperature (165 °C)



LINKS TO ADDITIONAL RESOURCES



Product Page

FEATURES

- 3.2 mm x 2.5 mm x 1.2 mm SMD package
- Handles high transient current spikes without saturation
- Magnetically shielded composite construction
- AEC-Q200 qualified
- Side and bottom plated terminals for improved shock and vibration performance and solder inspection
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE
GRADERoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

APPLICATIONS

- Energy storage for DC/DC converters in infotainment, navigation, and braking systems
- ADAS, LiDAR, sensors, and engine control
- Power line noise suppression and filtering

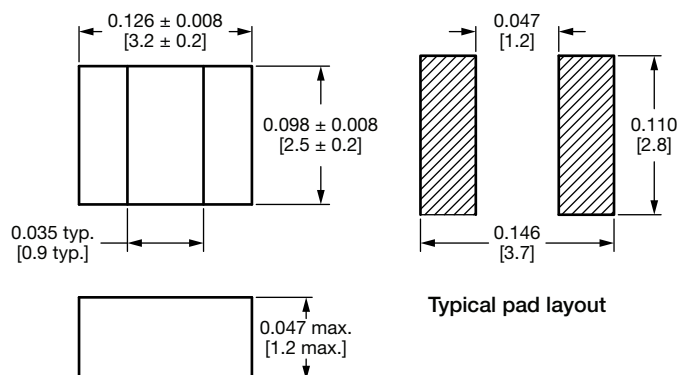
STANDARD ELECTRICAL SPECIFICATIONS

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)	
					20 % DROP ⁽²⁾	30 % DROP ⁽³⁾
IHLP1210ABEZR10M5A	0.10	8.0	10.0	9.0	10	12
IHLP1210ABEZR33M5A	0.33	13.0	16.0	5.8	7.9	9.5
IHLP1210ABEZR47M5A	0.47	18.0	22.0	5.1	6.5	8.2
IHLP1210ABEZR68M5A	0.68	25.0	30.0	4.4	5.3	6.5
IHLP1210ABEZ1R0M5A	1.0	30.0	36.0	3.9	4.3	5.2
IHLP1210ABEZ4R7M5A	4.7	150.0	180.0	1.8	2.0	2.5

Notes

- All test data is referenced to 25 °C ambient
 - Operating temperature range -55 °C to +165 °C
 - The part temperature (ambient + temp. rise) should not exceed the maximum rating 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) = 30 V
- (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 %
 (3) DC current (A) that will cause L₀ to drop approximately 30 %

DIMENSIONS in inches [millimeters]





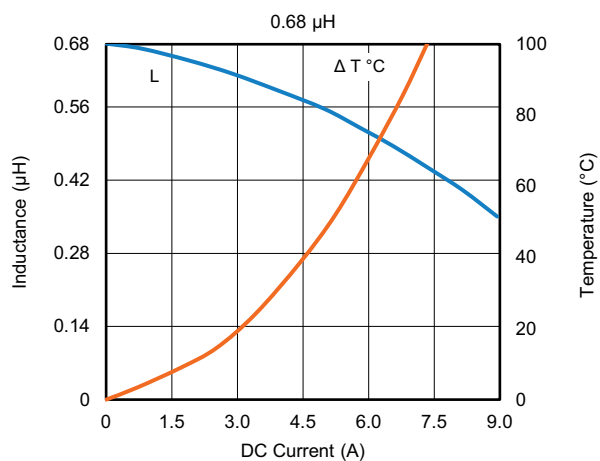
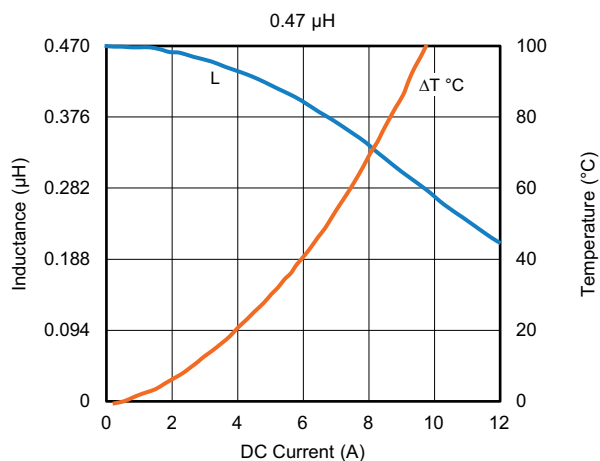
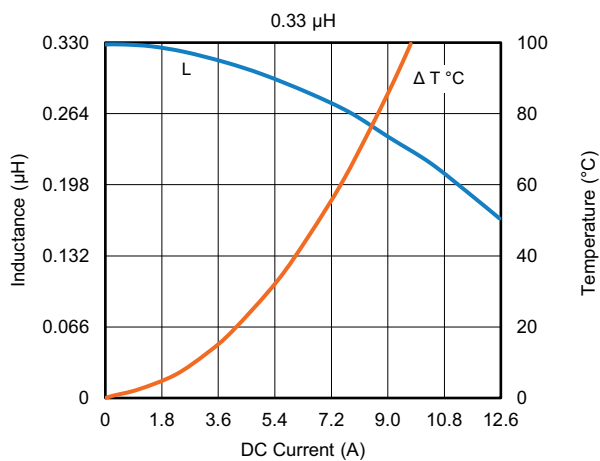
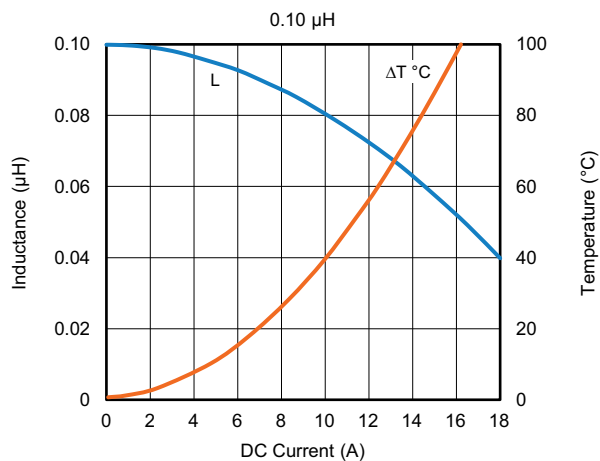
DESCRIPTION

IHLP1210ABEZ-5A	0.47 μ H	$\pm 20\%$	EZ	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

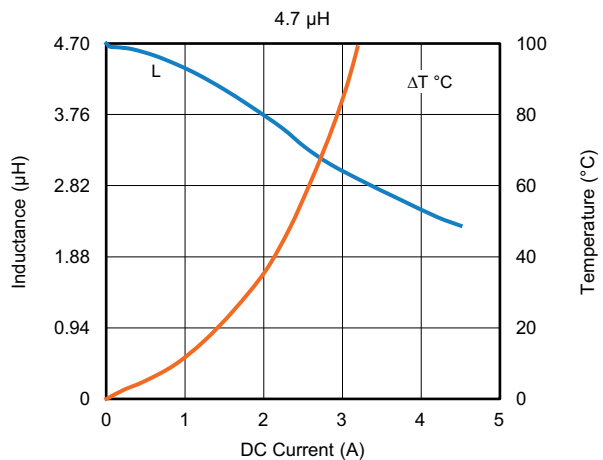
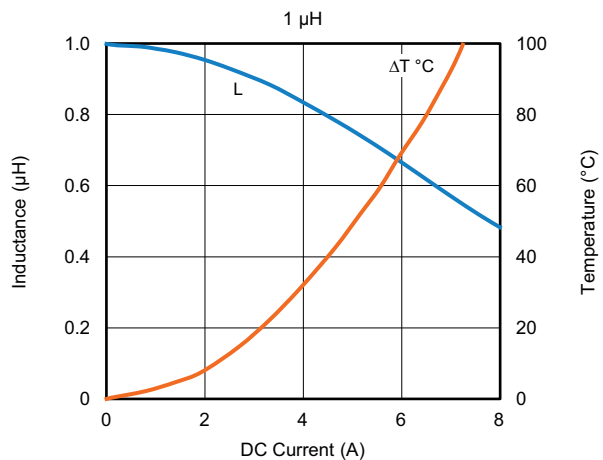
I	H	L	P	1	2	1	0	A	B	E	Z	R	4	7	M	5	A
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE		INDUCTANCE TOLERANCE		SERIES			
								EZ = tape and reel		R47 = 0.47 μ H		M = $\pm 20\%$					

PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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