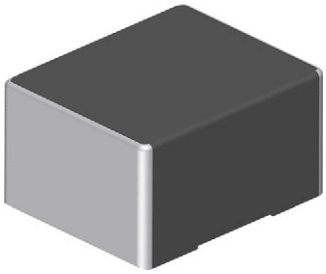
# IHLP® High Temperature (165 °C), Automotive Power Inductors



## FEATURES

- 2.0 mm x 1.6 mm x 1.2 mm SMD package
- Handles high transient current spikes without saturation
- Magnetically shielded construction
- AEC-Q200 qualified
- Side and bottom plated terminals for improved shock and vibration performance and solder inspection
- Packaging information: SMD packaging
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

## APPLICATIONS

- Automotive point of load modules (ADAS)
- Battery powered devices
- Data networking and storage systems
- DDR5 SDRAM

## STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER | $L_0$ INDUCTANCE ± 20 % AT 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) | |
|---|---|---|---|---|---|---|
| | | | | | 20 % DROP | 30 % DROP |
| IHLP0806ABEZR22M5A | 0.22 | 15.0 | 18.0 | 5.8 | 5.1 | 7.5 |
| IHLP0806ABEZR24M5A | 0.24 | 17.0 | 20.0 | 5.1 | 5.0 | 6.5 |
| IHLP0806ABEZR33M5A | 0.33 | 19.0 | 23.0 | 4.7 | 4.8 | 5.9 |
| IHLP0806ABEZR47M5A | 0.47 | 21.0 | 25.0 | 4.6 | 4.5 | 5.4 |

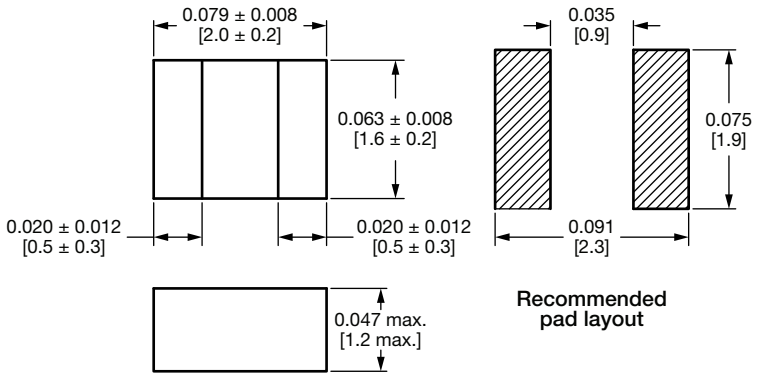
**Notes**

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +165 °C
- Rated operating voltage (across inductor) = 30 V
- Test condition: 1 MHz, 1 V
- The part temperature (ambient + temp. rise) should not exceed 155 °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

(1) DC current (A) that will cause an approximate ΔT of 40 °C

(2) DC current (A) that will cause $L_0$ to drop approximately 20 % and 30 %

## DIMENSIONS in inches [millimeters]



## DESCRIPTION

| IHLP-0806AB-5A | 0.24 µH | ± 20 % | EZ | e3 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

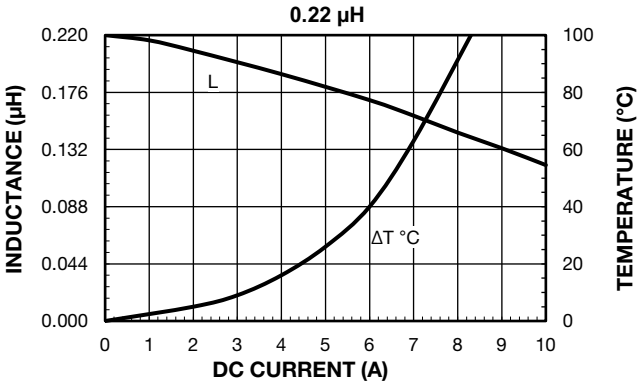
| I | H | L | P | 0 | 8 | 0 | 6 | A | B | E | Z | R | 2 | 4 | M | 5 | A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT FAMILY | | | | SIZE | | | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | INDUCTANCE TOLERANCE | SERIES | |

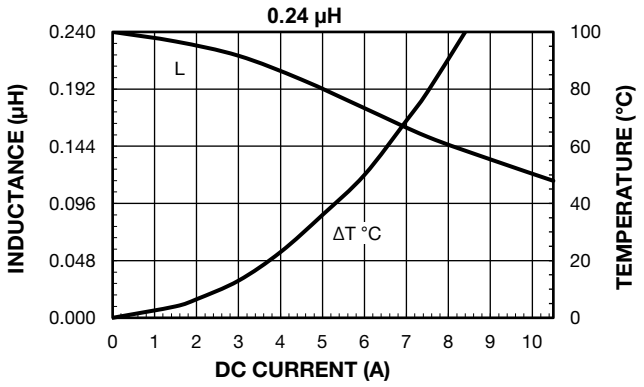
**EZ** = tape and reel 3000 pcs/reel

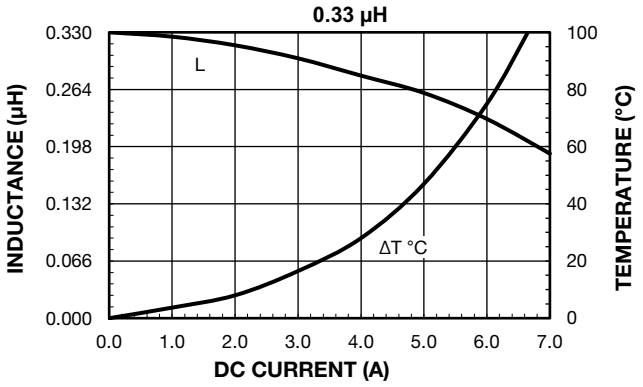
**R24** = 0.24 µH

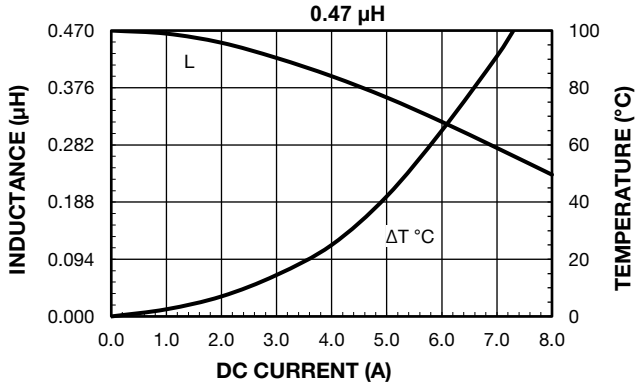
**M** = ± 20 %

## PERFORMANCE GRAPHS



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