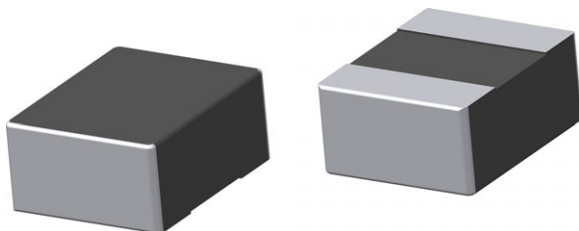




## IHLP® Automotive Inductors, High Temperature (165 °C) Series



## LINKS TO ADDITIONAL RESOURCES



Product Page

## 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

## FEATURES

- 2.5 mm x 2.0 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
- Excellent stability of inductance versus temperature up to 165 °C
- Packaging information: [SMD packaging](#)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

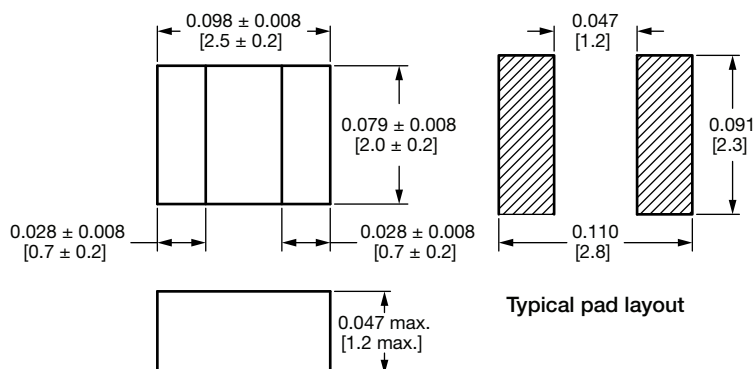
AUTOMOTIVE  
GRADERoHS  
COMPLIANTHALOGEN  
FREEGREEN  
(5-2008)

## STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER        | L <sub>0</sub> INDUCTANCE<br>± 20 % AT 0 A<br>(μH) | DCR TYP.<br>25 °C<br>(mΩ) | DCR MAX.<br>25 °C<br>(mΩ) | HEAT RATING<br>CURRENT DC TYP.<br>(A) <sup>(1)</sup> | SATURATION CURRENT DC TYP.<br>(A) |                          |
|--------------------|----------------------------------------------------|---------------------------|---------------------------|------------------------------------------------------|-----------------------------------|--------------------------|
|                    |                                                    |                           |                           |                                                      | 20 % DROP <sup>(2)</sup>          | 30 % DROP <sup>(3)</sup> |
| IHLP1008ABEZR10M5A | 0.10                                               | 9.0                       | 11.0                      | 7.7                                                  | 11.0                              | 12.8                     |
| IHLP1008ABEZR15M5A | 0.15                                               | 12.0                      | 15.0                      | 6.5                                                  | 8.5                               | 10.2                     |
| IHLP1008ABEZR22M5A | 0.22                                               | 15.0                      | 18.0                      | 6.3                                                  | 8.7                               | 9.0                      |
| IHLP1008ABEZR47M5A | 0.47                                               | 21.0                      | 26.0                      | 4.7                                                  | 5.3                               | 6.5                      |
| IHLP1008ABEZ1R0M5A | 1.0                                                | 35.0                      | 42.0                      | 3.8                                                  | 3.9                               | 4.8                      |
| IHLP1008ABEZ2R2M5A | 2.2                                                | 70.0                      | 84.0                      | 2.6                                                  | 2.8                               | 3.5                      |
| IHLP1008ABEZ3R3M5A | 3.3                                                | 115.0                     | 140.0                     | 2.0                                                  | 2.2                               | 2.7                      |
| IHLP1008ABEZ4R7M5A | 4.7                                                | 165.0                     | 200.0                     | 1.7                                                  | 1.9                               | 2.2                      |

## 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 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
- <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 %  
<sup>(3)</sup> DC current (A) that will cause L<sub>0</sub> to drop approximately 30 %

**DIMENSIONS** in inches [millimeters]


No part marking

**DESCRIPTION**

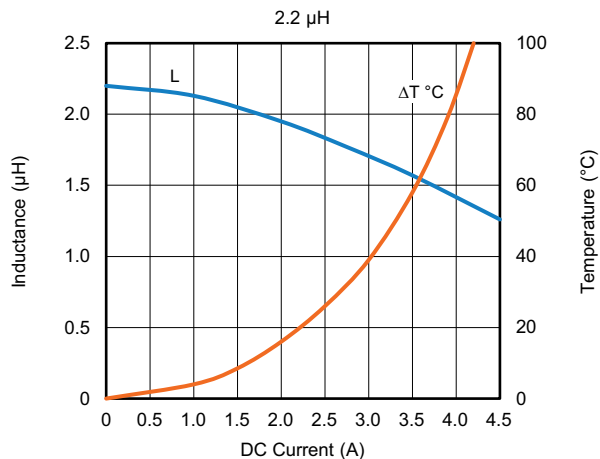
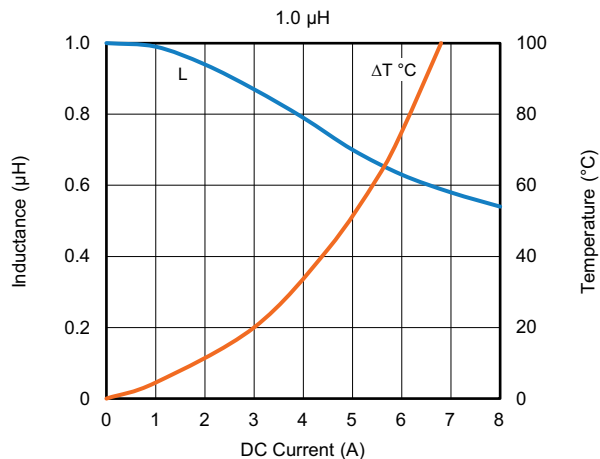
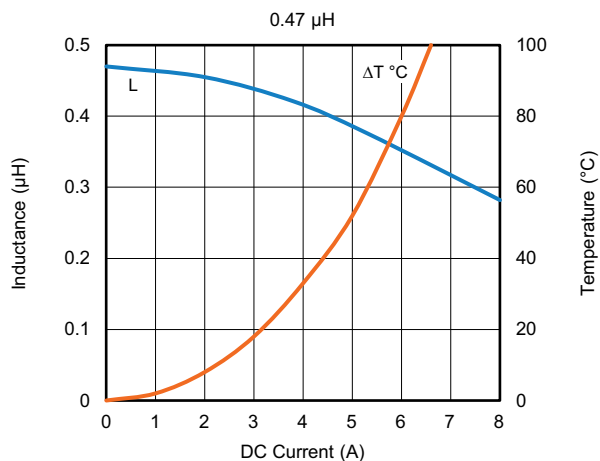
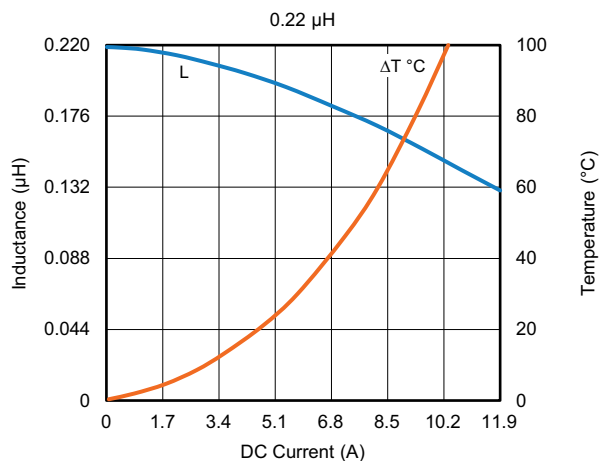
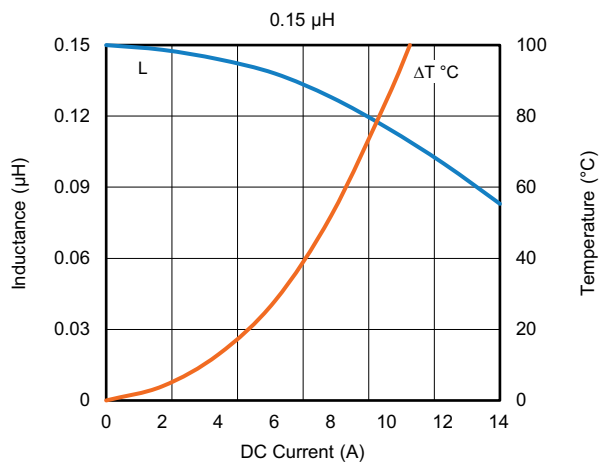
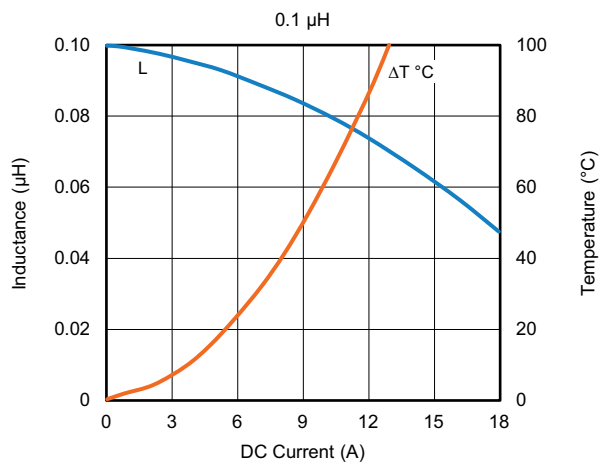
|                         |                              |                               |              |                                |
|-------------------------|------------------------------|-------------------------------|--------------|--------------------------------|
| <b>IHLP-1008ABEZ-5A</b> | <b>2.2 <math>\mu</math>H</b> | <b><math>\pm 20 \%</math></b> | <b>EZ</b>    | <b>e3</b>                      |
| MODEL                   | INDUCTANCE VALUE             | INDUCTANCE TOLERANCE          | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

**GLOBAL PART NUMBER**

|                |                    |                    |                   |                      |            |
|----------------|--------------------|--------------------|-------------------|----------------------|------------|
| <b>I H L P</b> | <b>1 0 0 8 A B</b> | <b>E Z</b>         | <b>2 R 2</b>      | <b>M</b>             | <b>5 A</b> |
| PRODUCT FAMILY | SIZE               | PACKAGE CODE       | INDUCTANCE VALUE  | INDUCTANCE TOLERANCE | SERIES     |
|                |                    | EZ = tape and reel | 2R2 = 2.2 $\mu$ H | M = $\pm 20 \%$      |            |

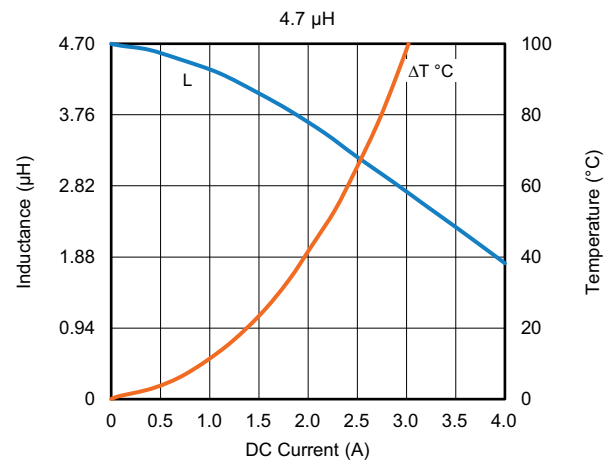
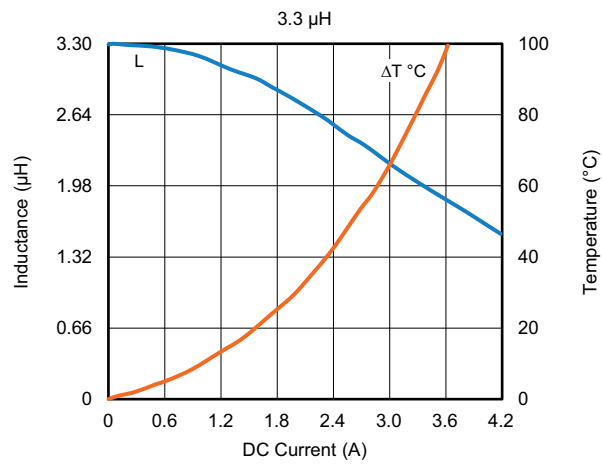


PERFORMANCE GRAPHS





PERFORMANCE GRAPHS





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