



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



## APPLICATIONS

- LED drivers
- Point-of-load modules
- Noise suppression and filtering
- Data networking and storage systems
- Engine and transmission control units

## 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
- IHLP design; PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)
- Packaging information: [SMD packaging](http://www.vishay.com/doc?99912)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

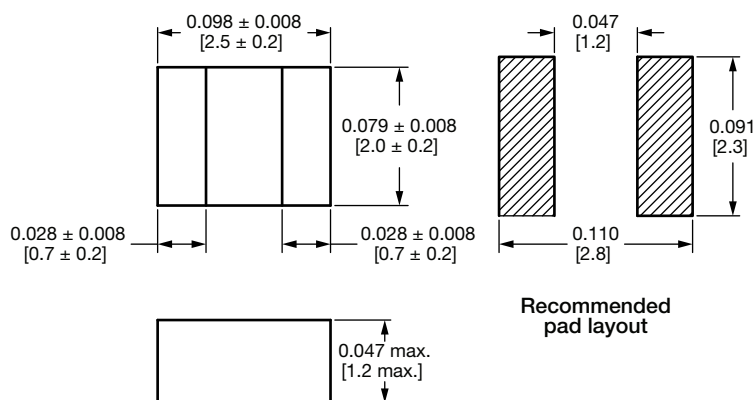
## STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER        | L <sub>0</sub> INDUCTANCE<br>± 20 % AT 100 kHz,<br>0.25 V, 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<br>DC TYP.<br>(A) |                          |
|--------------------|--|---------------------------|---------------------------|--|--------------------------------------|--------------------------|
|                    |  |                           |                           |  | 20 % DROP <sup>(2)</sup>             | 30 % DROP <sup>(3)</sup> |
| IHLP1008ABEZR15M5A | 0.15   | 12.0                      | 15.0                      | 6.5  | 8.5                                  | 10.2                     |
| 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                      |

### 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 155 °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
- <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]

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.



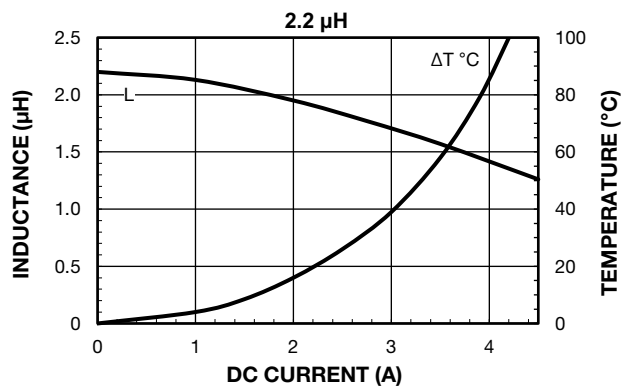
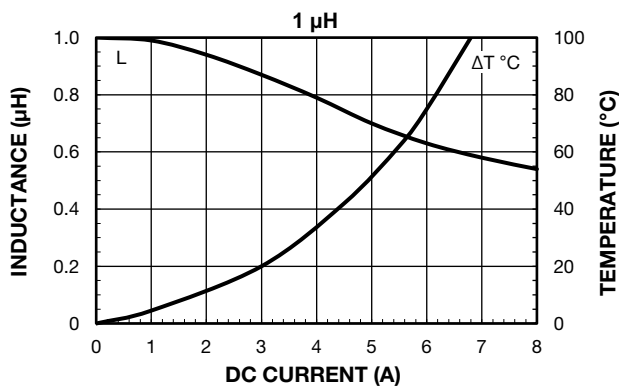
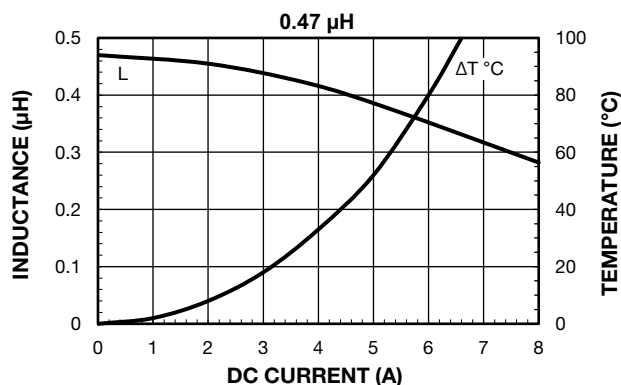
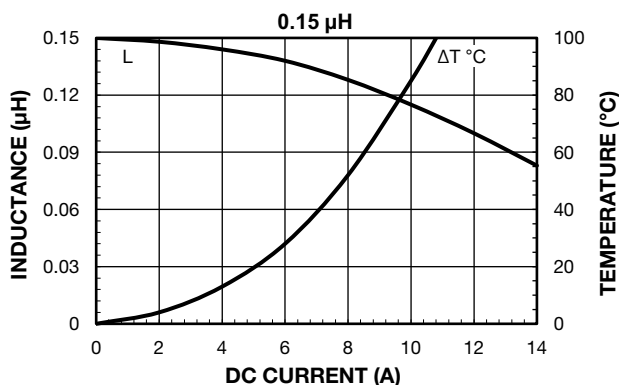
## DESCRIPTION

|                  |                   |                      |              |                                |
|------------------|-------------------|----------------------|--------------|--------------------------------|
| IHLP-1008ABEZ-5A | 2.2 $\mu\text{H}$ | $\pm 20\%$           | EZ           | e3                             |
| MODEL            | INDUCTANCE VALUE  | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

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

## PERFORMANCE GRAPHS





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