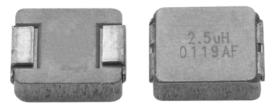
### IHLP-2525AH-01

www.vishay.com

Vishay Dale

# Low-Profile, High-Current IHLP<sup>®</sup> Inductor



Manufactured under one or more of the following: **US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.** Several foreign patents, and other patents pending.

| STANDARD ELECTRICAL SPECIFICATIONS  |                              |                              |  |  |  |  |  |  |  |
|---|------------------------------|------------------------------|--|--|--|--|--|--|--|
| L <sub>0</sub><br>INDUCTANCE<br>± 20 % AT 100 kHz,<br>0.25 V, 0 A<br>(μH) | DCR<br>TYP.<br>25 °C<br>(mΩ) | DCR<br>MAX.<br>25 °C<br>(mΩ) | HEAT<br>RATING<br>CURRENT<br>DC TYP.<br>(A) <sup>(3)</sup> | SATURATION<br>CURRENT<br>DC TYP.<br>(A) <sup>(4)</sup> |  |  |  |  |  |
| 0.1   | 3.0                          | 3.5                          | 18   | 40   |  |  |  |  |  |
| 0.15  | 4.7                          | 5.2                          | 15   | 38   |  |  |  |  |  |
| 0.22  | 5.3                          | 5.7                          | 14   | 26   |  |  |  |  |  |
| 0.33  | 6.6                          | 7.0                          | 12   | 18   |  |  |  |  |  |
| 0.47  | 8.4                          | 9.3                          | 11   | 18   |  |  |  |  |  |
| 0.68  | 12.7                         | 13.9                         | 9  | 17   |  |  |  |  |  |
| 0.82  | 13.8                         | 15.9                         | 8  | 17   |  |  |  |  |  |
| 1.0   | 17.5                         | 18.3                         | 7  | 14   |  |  |  |  |  |
| 1.5   | 32.6                         | 34.0                         | 4  | 11.5   |  |  |  |  |  |
| 2.2   | 40.3                         | 46.0                         | 3.75   | 13   |  |  |  |  |  |
| 2.5   | 49.9                         | 52.4                         | 3.5  | 10.4   |  |  |  |  |  |
| 3.3   | 56.2                         | 60.1                         | 3.25   | 10   |  |  |  |  |  |
| 4.7   | 76.6                         | 78.0                         | 3  | 8  |  |  |  |  |  |

#### Notes

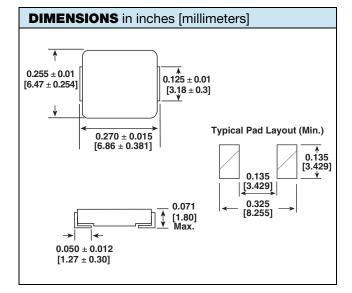
- <sup>(1)</sup> All test data is referenced to 25 °C ambient
- <sup>(2)</sup> Operating temperature range -55 °C to +125 °C
- $^{(3)}$  DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- $^{(4)}\,$  DC current (A) that will cause  $L_0$  to drop approximately 20 %
- <sup>(5)</sup> The part temperature (ambient + temp. rise) should not exceed 125 °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.

### FEATURES

- Lowest height (1.8 mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

### **APPLICATIONS**

- PDA / notebook / desktop / server applications
- High current POL converters
- · Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)



| DESCRIPTION    |                  |                      |              |  |  |  |  |  |  |
|----------------|------------------|----------------------|--------------|--|--|--|--|--|--|
| IHLP-2525AH-01 | 1.0 μH           | ± 20 %               | ER           | e3   |  |  |  |  |  |
| MODEL          | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD |  |  |  |  |  |
|                |                  |                      |              |  |  |  |  |  |  |

| GLOBAL PART NUMBER       |                   |                              |       |               |  |  |  |  |  |
|--------------------------|-------------------|------------------------------|-------|---------------|--|--|--|--|--|
| I H L P   PRODUCT FAMILY | 2 5 2 5 A<br>SIZE | H E R 1<br>PACKAGE I<br>CODE | R 0 M | 0 1<br>SERIES |  |  |  |  |  |

Revision: 17-Feb-15

For technical questions, contact: magnetics@vishay.com

Document Number: 34125

Pb-free

RoHS COMPLIANT HALOGEN FREE GREEN (5-2008)

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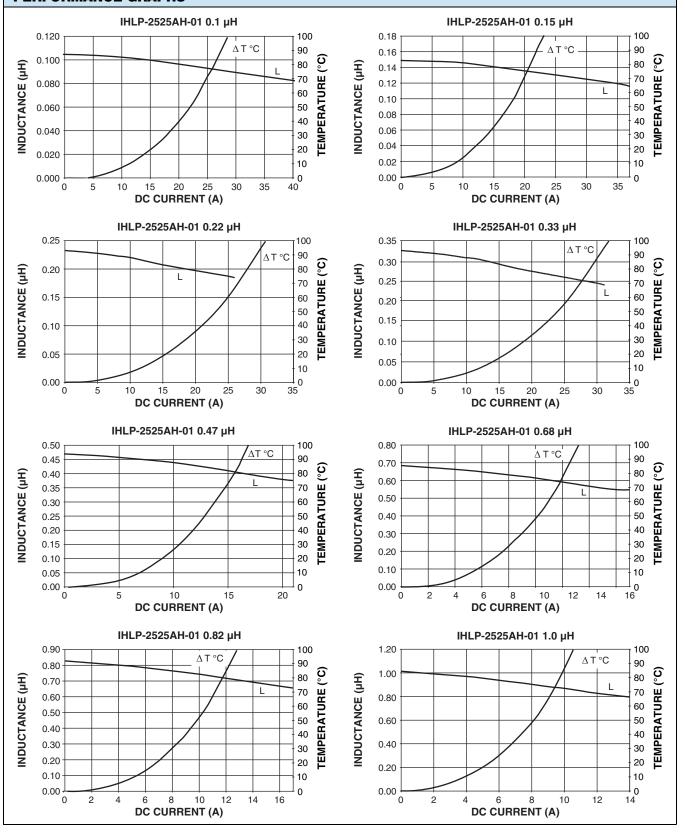
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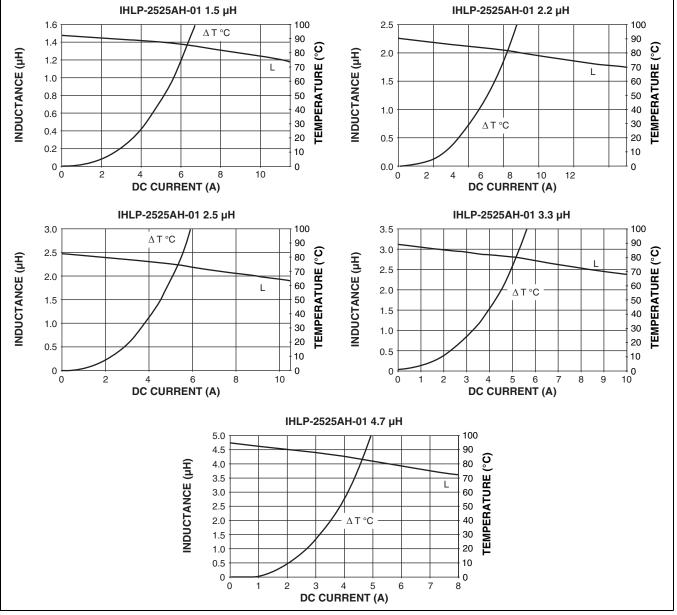
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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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