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Vishay Dale

IHLP[®] Commercial Inductors, High Saturation Series



DESIGN SUPPORT TOOLS click logo to get started

| 3D | X |
|-----------|--------|
| Models | Desigr |
| Available | Avai |

| Design | Tool |
|--------|------|
| Availa | able |

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | |
|---|------------------------------|------------------------------|--|--|--|--|
| 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) ⁽²⁾ | | |
| 0.56 | 3.4 | 3.6 | 20 | 12 | | |
| 0.68 | 4.2 | 4.5 | 18 | 11.5 | | |
| 0.82 | 4.6 | 4.9 | 16.5 | 13 | | |
| 1.0 | 5.6 | 6.5 | 13 | 15 | | |
| 1.5 | 8.6 | 9.0 | 12 | 12 | | |
| 2.2 | 13.0 | 13.6 | 10 | 10 | | |
| 3.3 | 19.9 | 20.9 | 8 | 8 | | |
| 4.7 | 28.9 | 30.3 | 6.5 | 7 | | |
| 5.6 | 32.7 | 34.4 | 6 | 7 | | |
| 6.8 | 42.5 | 44.6 | 5.5 | 5.5 | | |
| 8.2 | 48.3 | 50.7 | 5.0 | 5.0 | | |
| 10.0 | 67.9 | 71.3 | 4.5 | 4.5 | | |

Notes

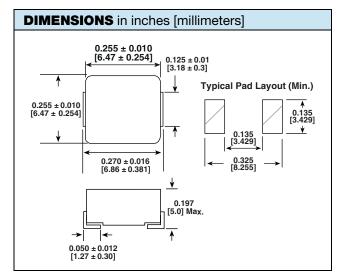
- All test data is referenced to 25 °C ambient Operating temperature range -55 °C to +125 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Rated operating voltage (across inductor) = 75 V (1)
- DC current (A) that will cause an approximate ∆T of 40 °C ⁽²⁾ DC current (A) that will cause L_0 to drop approximately 20 %

FEATURES

- Shielded construction
- Frequency range below 1.0 MHz
- Lowest DCR/µH, in this package size
- Powdered iron composition provides soft saturation
- · Handles high transient current spikes without saturation
- Saturation and inductance extremely stable over temperature
- Ultra low buzz noise, due to composite construction
- IHLP design. PATENT(S): <u>www.vishav.com/patents</u>
- · Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

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



INDUCTANCE

VALUE

DESCRIPTION 1.0 µH IHLP-2525EZ-01 ± 20 % ER e3 JEDEC[®] LEAD (Pb)-FREE STANDARD MODEL INDUCTANCE VALUE INDUCTANCE TOLERANCE PACKAGE CODE **GLOBAL PART NUMBER** Т н L Ρ 2 5 2 5 Е Ζ Е R 1 R 0 Μ 0 1

PATENT(S): www.vishay.com/patents

PRODUCT FAMILY

This Vishay product is protected by one or more United States and international patents.

SIZE

Revision: 07-Jun-17

1

PACKAGE

CODE

Document Number: 34177

SERIES

TOL.

RoHS COMPLIANT HALOGEN FREE

GREEN

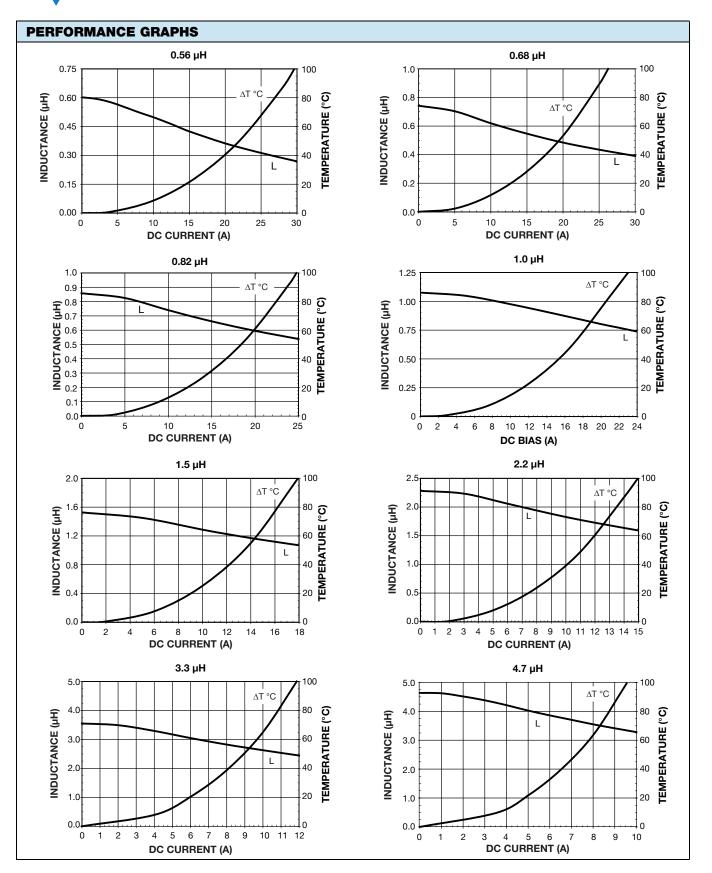
(5-2008)

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Revision: 07-Jun-17

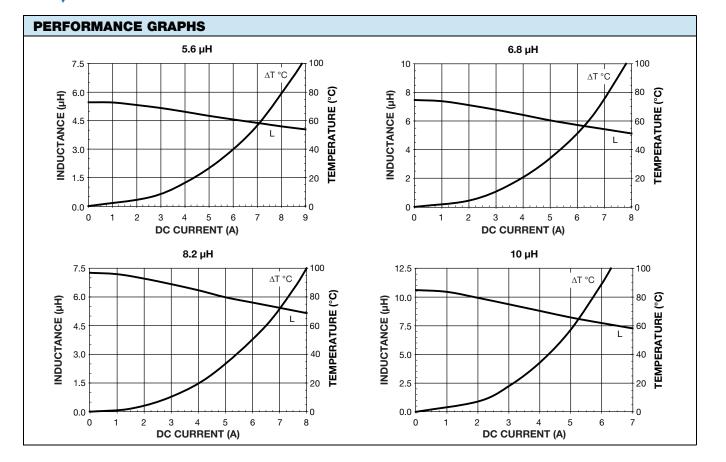
2 For technical questions, contact: <u>magnetics@vishay.com</u> Document Number: 34177

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