RoHS

COMPLIANT



Shay.com Vishay Dale

# Low Profile, IHLP® Power Inductors - DC Resistance Tolerance 5 %





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			
$\begin{array}{c} \text{L}_0\\ \text{INDUCTANCE}\\ \pm 20~\%~\text{AT 100 kHz},\\ 0.25~\text{V, 0 A}\\ (\mu\text{H}) \end{array}$	DCR ± 5 % AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>
0.10	1.30	32.5	60
0.15	1.85	26	52
0.20	2.34	24	41
0.33	3.20	20	30
0.47	3.86	17.5	26
0.68	5.20	15.5	25
0.82	7.41	13	24
1.0	8.44	11	22
1.5	14.50	9	18
2.2	17.73	8	14
3.3	28.21	6	13.5
4.7	37.11	5.5	10
8.2	61.47	4	7.5
10	97.71	3	7.0

#### Notes

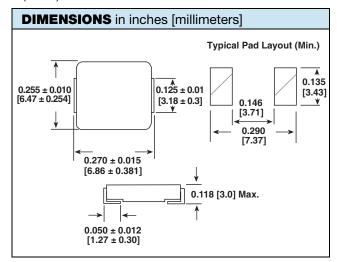
- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range -55 °C to +125 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
  (5) The part temperature (ambient + temp. rise) should 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.

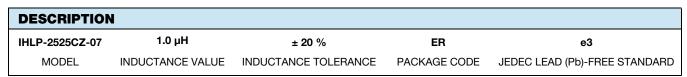
#### **FEATURES**

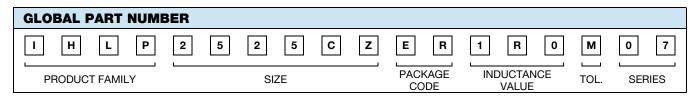
- · Lowest height (3.0 mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Material categorization: For definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

#### **APPLICATIONS**

- Tolerance DCR for current sense applications
- Improved current balance in phased power supplies
- · Improved thermal management
- PDA/notebook/desktop/server and battery powered devices
- · High current, low profile POL converters
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array (FPGA)

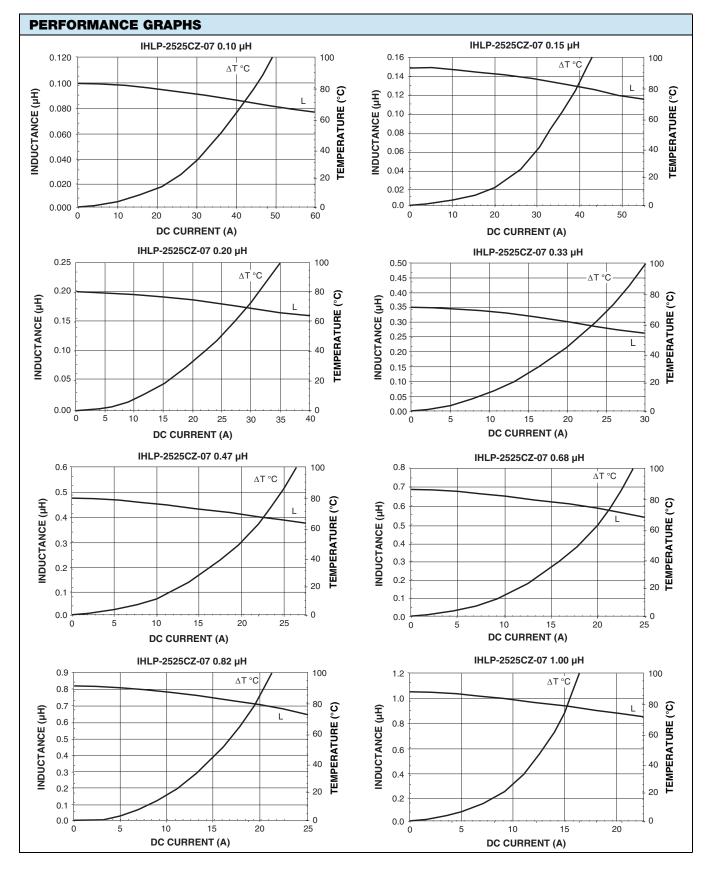






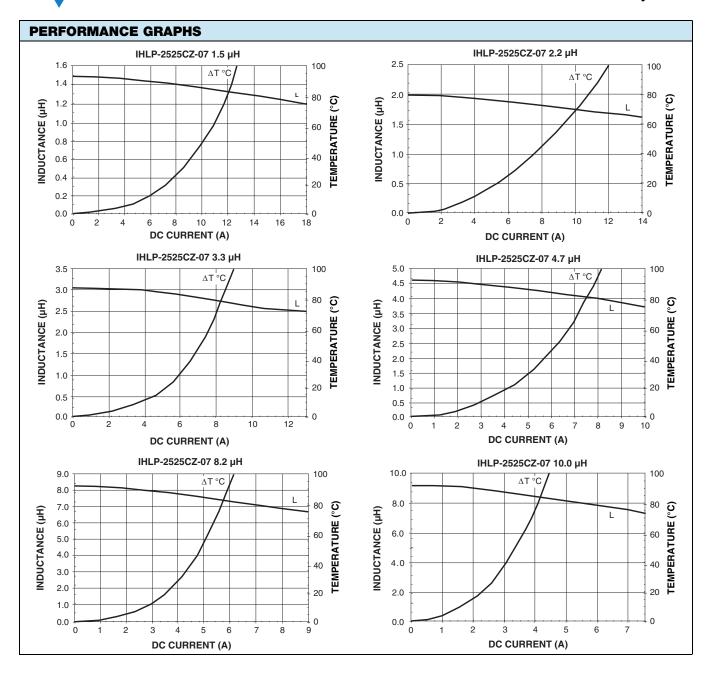
Revision: 20-Sep-13 Document Number: 34168







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## **Legal Disclaimer Notice**

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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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