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Vishay Dale

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**GREEN** 

(5-2008)

# IHLP® Commercial Inductors, High Temperature (155 °C) Series





#### **LINKS TO ADDITIONAL RESOURCES**





#### **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)

#### **FEATURES**

- High temperature, up to 155 °C
- · Magnetically shielded construction
- Excellent DC/DC energy storage up to 2 MHz
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- IHLP design; PATENT(S): www.vishay.com/patents
- Packaging information: <u>SMD packaging</u>
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

| STANDARD ELECTRICAL SPECIFICATIONS |                                                                |                      |                      |                                |                                      |               |             |  |  |  |
|------------------------------------|----------------------------------------------------------------|----------------------|----------------------|--------------------------------|--------------------------------------|---------------|-------------|--|--|--|
|                                    | L <sub>0</sub> INDUCTANCE<br>± 20 % AT 100 kHz,<br>0.25 V, 0 A | DCR<br>TYP.<br>25 °C | DCR<br>MAX.<br>25 °C | HEAT RATING CURRENT<br>DC TYP. | SATURATION CURRENT<br>DC TYP.<br>(A) |               | SRF<br>TYP. |  |  |  |
| PART NUMBER                        | (μH)                                                           | (m $\Omega$ )        | (m $\Omega$ )        | (A) <sup>(1)</sup>             | 20 % DROP (2)                        | 30 % DROP (3) | (MHz)       |  |  |  |
| IHLP6767GZERR47M51                 | 0.47                                                           | 0.89                 | 0.95                 | 65                             | 76                                   | 110           | 52.3        |  |  |  |
| IHLP6767GZER1R0M51                 | 1                                                              | 1.36                 | 1.46                 | 53                             | 42                                   | 60            | 35.5        |  |  |  |
| IHLP6767GZER1R5M51                 | 1.5                                                            | 1.72                 | 1.85                 | 40.5                           | 40                                   | 55            | 24          |  |  |  |
| IHLP6767GZER2R2M51                 | 2.2                                                            | 2.25                 | 2.41                 | 38.5                           | 38                                   | 41            | 19.8        |  |  |  |
| IHLP6767GZER3R3M51                 | 3.3                                                            | 3.06                 | 3.27                 | 32.2                           | 32                                   | 40            | 16.5        |  |  |  |
| IHLP6767GZER4R7M51                 | 4.7                                                            | 4.89                 | 5.23                 | 24                             | 26                                   | 35            | 14          |  |  |  |
| IHLP6767GZER5R6M51                 | 5.6                                                            | 5.86                 | 6.30                 | 23                             | 23                                   | 33            | 11.5        |  |  |  |
| IHLP6767GZER6R8M51                 | 6.8                                                            | 7.5                  | 8.06                 | 21                             | 22                                   | 32            | 10.4        |  |  |  |
| IHLP6767GZER8R2M51                 | 8.2                                                            | 8.6                  | 9.23                 | 17.5                           | 14.5                                 | 19            | 9.4         |  |  |  |
| IHLP6767GZER100M51                 | 10                                                             | 10.2                 | 10.91                | 16                             | 13                                   | 18.5          | 7.7         |  |  |  |
| IHLP6767GZER150M51                 | 15                                                             | 15.85                | 16.96                | 12.5                           | 13                                   | 16            | 8.55        |  |  |  |
| IHLP6767GZER220M51                 | 22                                                             | 21.28                | 22.27                | 11.7                           | 11                                   | 15            | 5.97        |  |  |  |
| IHLP6767GZER330M51                 | 33                                                             | 36.2                 | 38.9                 | 8.8                            | 9.4                                  | 13.7          | 4.43        |  |  |  |
| IHLP6767GZER470M51                 | 47                                                             | 52.7                 | 56.4                 | 7.25                           | 7                                    | 10.1          | 3.72        |  |  |  |

#### Notes

- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °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
- Rated operating voltage (across inductor) = 75 V
- (1) DC current (A) that will cause an approximate ΔT of 40 °C
- (2) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- (3) DC current (A) that will cause L<sub>0</sub> to drop approximately 30 %

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

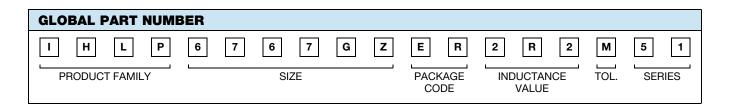
Revision: 24-Nov-2023

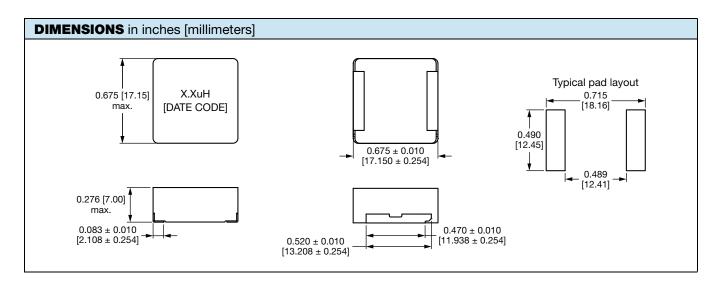
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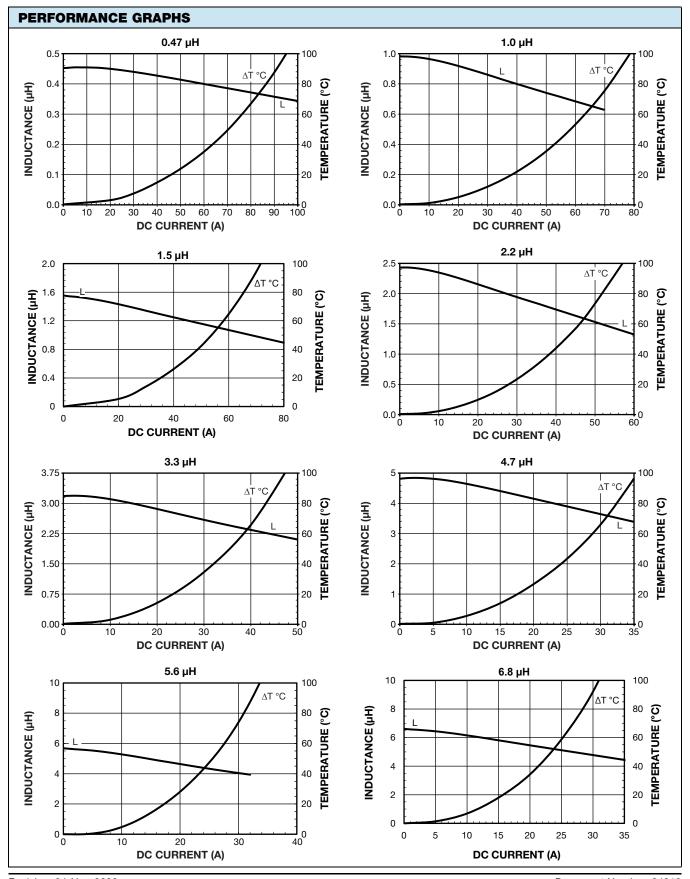
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| DESCRIPTION    |                  |                      |               |                                |  |  |  |  |  |
|----------------|------------------|----------------------|---------------|--------------------------------|--|--|--|--|--|
| IHLP-6767GZ-51 | 2.2 μΗ           | ± 20 %               | TAPE AND REEL | e3                             |  |  |  |  |  |
| MODEL          | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE  | JEDEC® LEAD (Pb)-FREE STANDARD |  |  |  |  |  |

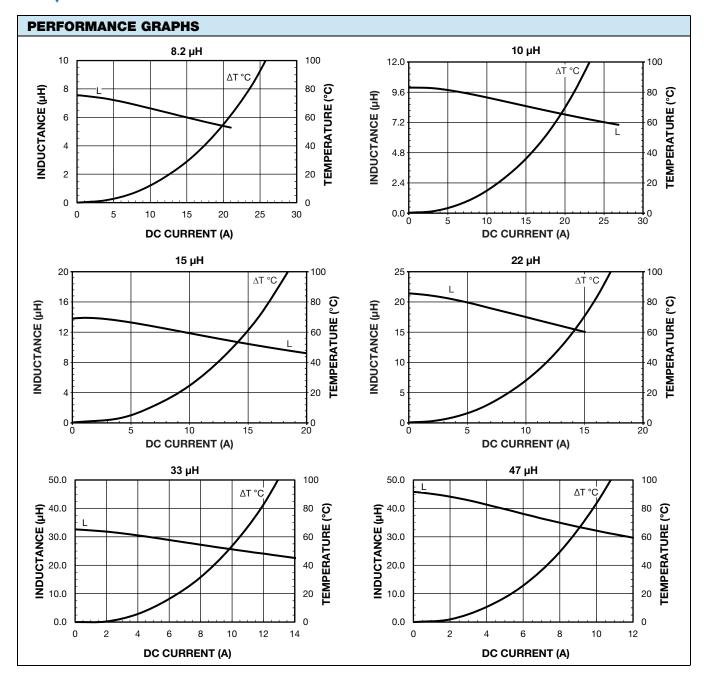




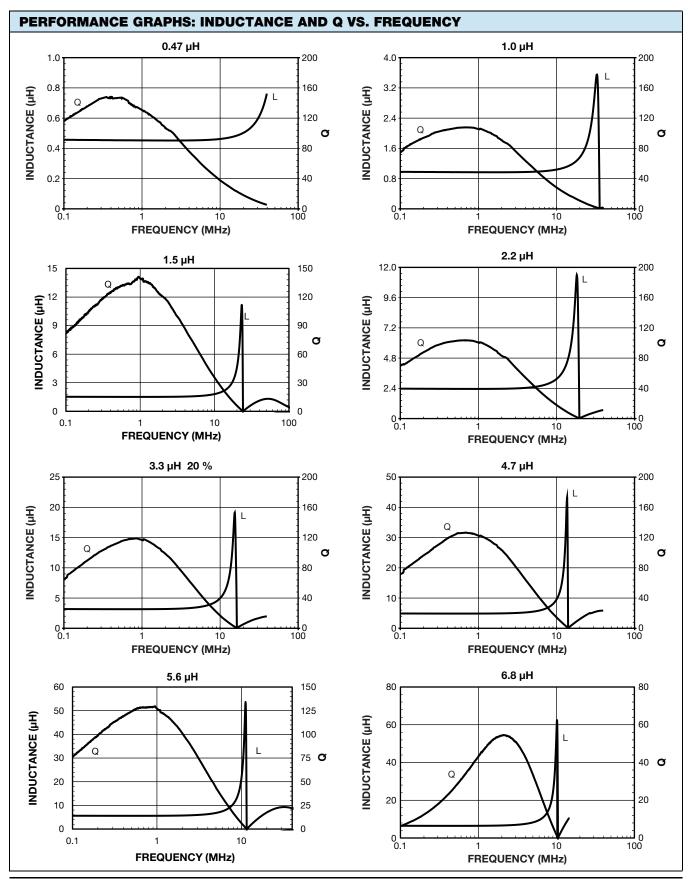


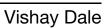




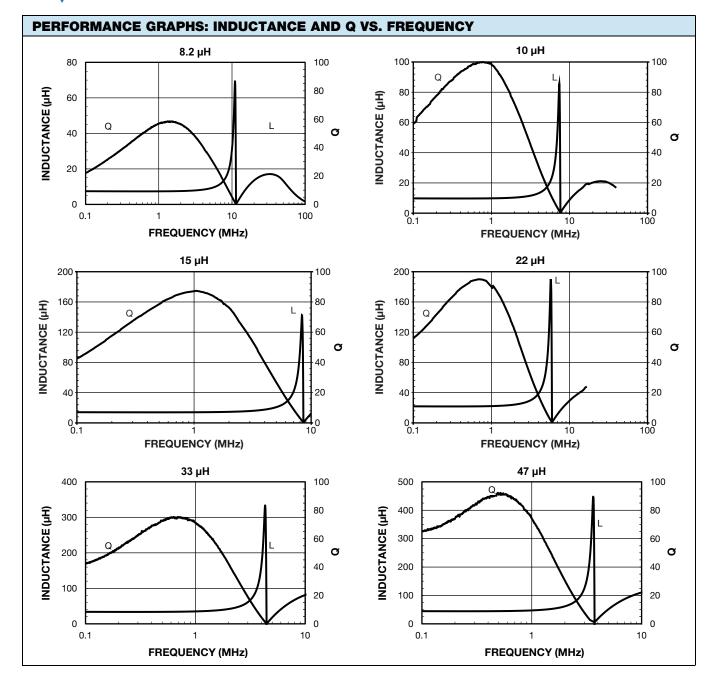














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