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Vishay Dale

RoHS COMPLIANT

**HALOGEN** 

# Low Profile, High Current IHLP® Inductors





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) (4) |
| 0.22  | 0.63                         | 0.75                         | 80   | 129   |
| 0.33  | 0.71                         | 0.82                         | 65   | 126   |
| 0.47  | 0.90                         | 1.03                         | 62   | 123   |
| 0.56  | 0.91                         | 1.05                         | 56   | 88  |
| 0.82  | 1.17                         | 1.29                         | 50   | 73  |
| 1.0   | 1.28                         | 1.38                         | 48   | 73  |
| 1.5   | 1.78                         | 1.88                         | 42   | 65  |
| 1.8   | 1.96                         | 2.10                         | 38   | 65  |
| 2.2   | 2.40                         | 2.53                         | 35   | 62  |
| 3.3   | 3.68                         | 3.88                         | 28   | 54  |
| 4.7   | 4.84                         | 5.11                         | 25   | 41  |
| 5.6   | 6.68                         | 7.05                         | 21   | 40  |
| 6.8   | 8.37                         | 8.83                         | 19   | 32  |
| 8.2   | 10.10                        | 10.66                        | 18   | 25  |
| 10.0  | 11.6                         | 12.0                         | 16.5   | 25  |
| 15.0  | 18.8                         | 19.9                         | 12.5   | 25  |
| 22.0  | 25.1                         | 26.5                         | 11   | 23  |

#### **Notes**

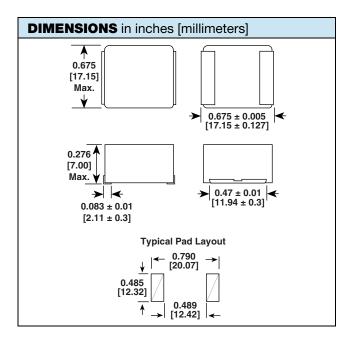
- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range 55 °C to + 125 °C
- (3) DC current (A) that will cause an approximate ΔT of 40 °C
- (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- The part temperature (ambient + temp. rise) should not 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.

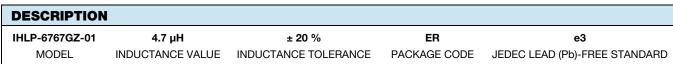
#### **FEATURES**

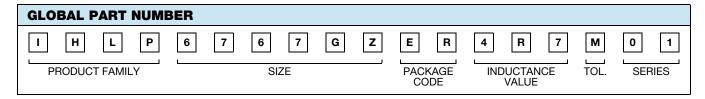
- · Shielded construction
- Frequency range up to 2.0 MHz
- Lowest DCR/µH, in this package size
- · Handles high transient current spikes without saturation
- Saturation and inductance extremely stable over temperature
- FREE GREEN (5-2008)
- Ultra low buzz noise, due to composite construction
- · Material categorization: For definitions of compliance please see <a href="https://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>

#### **APPLICATIONS**

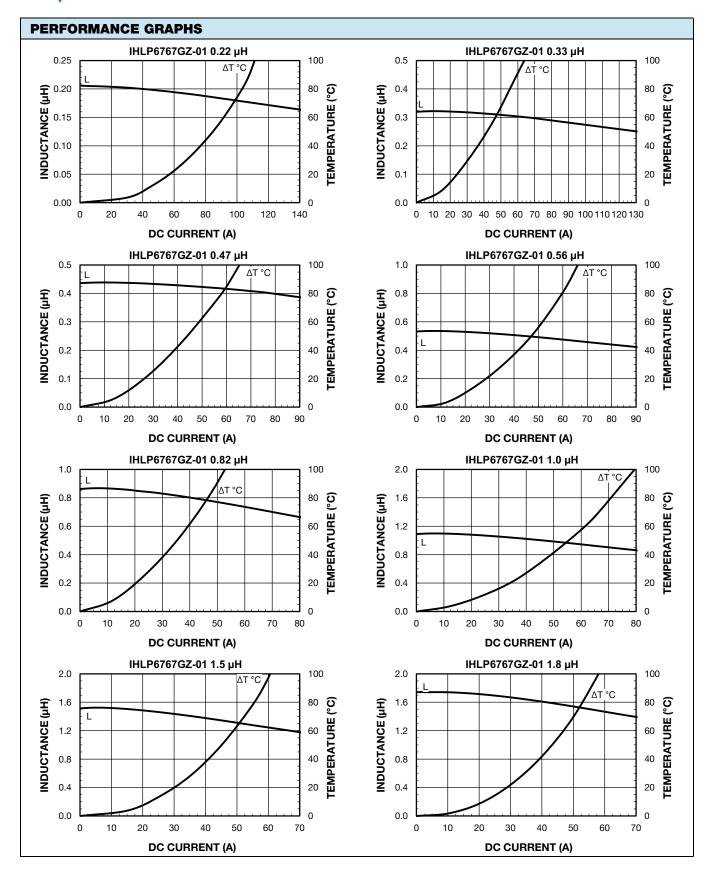
- · Desktop/server applications
- High current buck and boost converters
- Low profile, high current power supplies
- DC/DC converters in distributed power systems
- High current noise filter

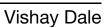




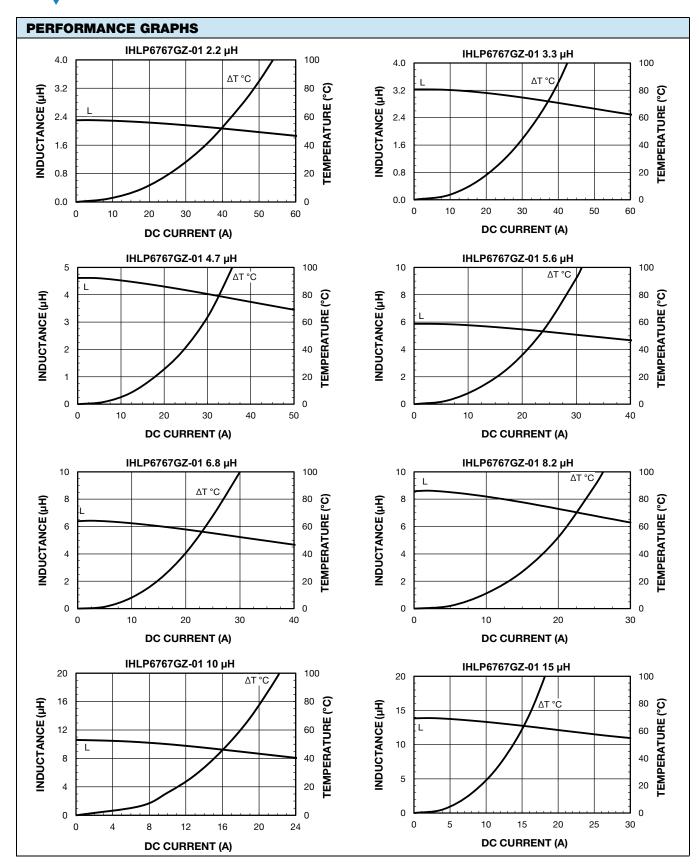






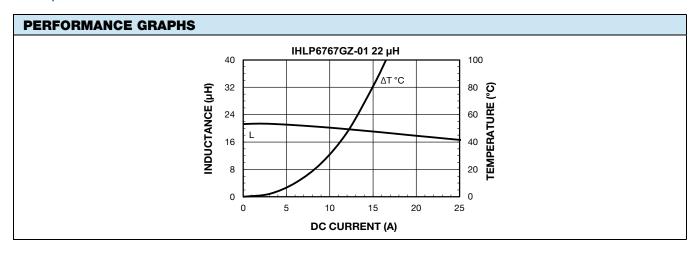


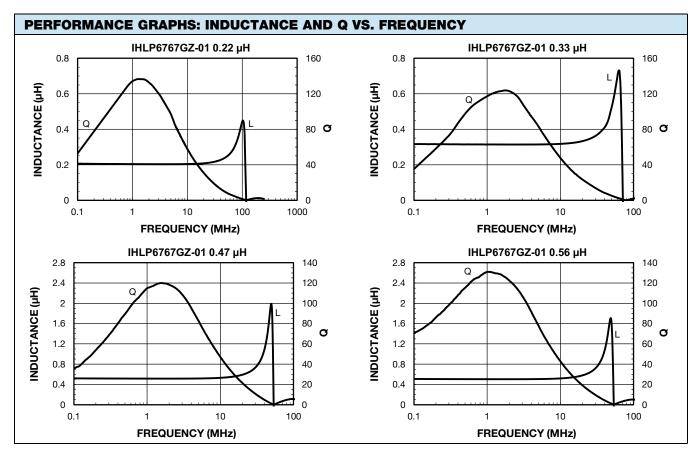




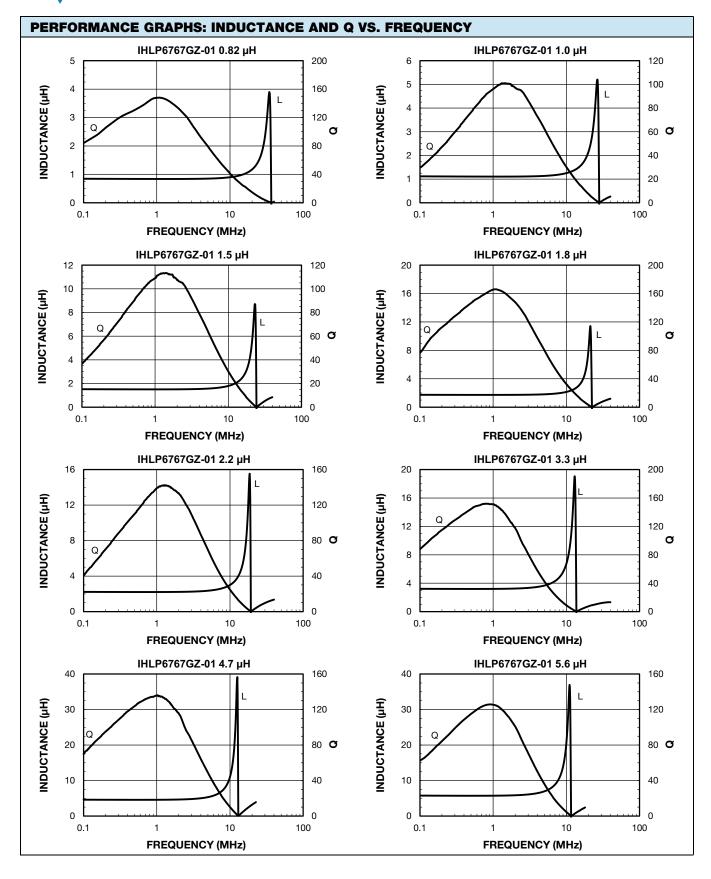


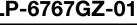






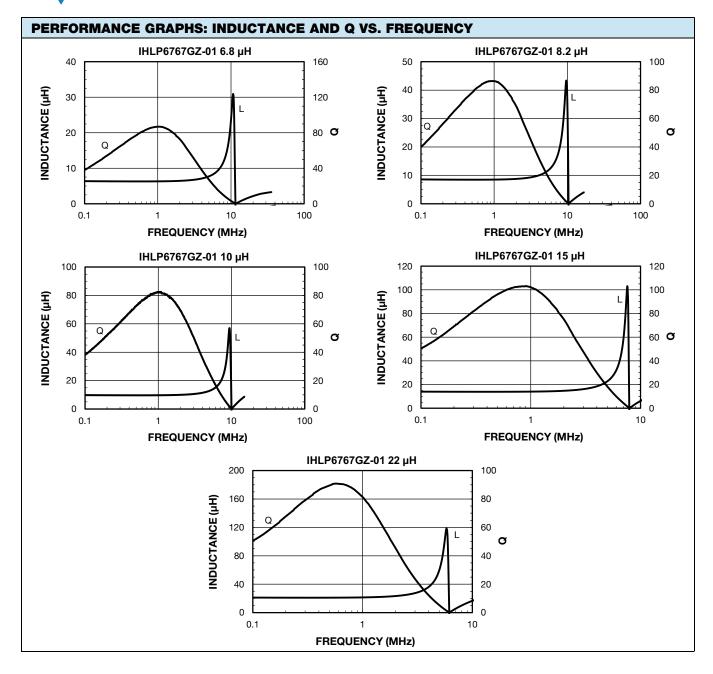








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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

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