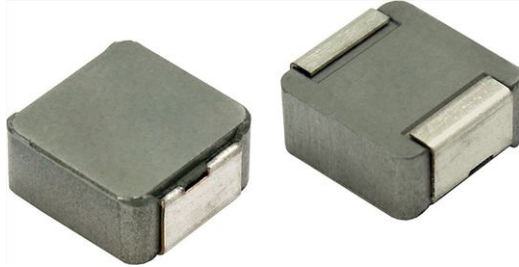


# IHLP® Commercial Inductors, High Saturation Series



## FEATURES

- Alternative IHLP parts with short 10 week lead time
- Shielded construction
- Excellent DC/DC energy storage up to 1 MHz to 2 MHz. Filter inductor applications up to SRF (see “Standard Electrical Specifications” table)
- 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 [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
**HALOGEN**  
**FREE**  
**GREEN**  
(5-2008)

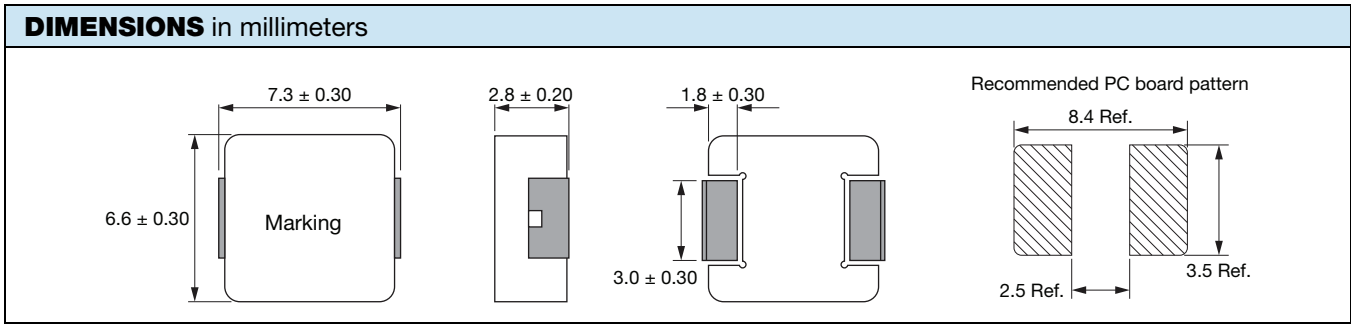
## APPLICATIONS

- 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)

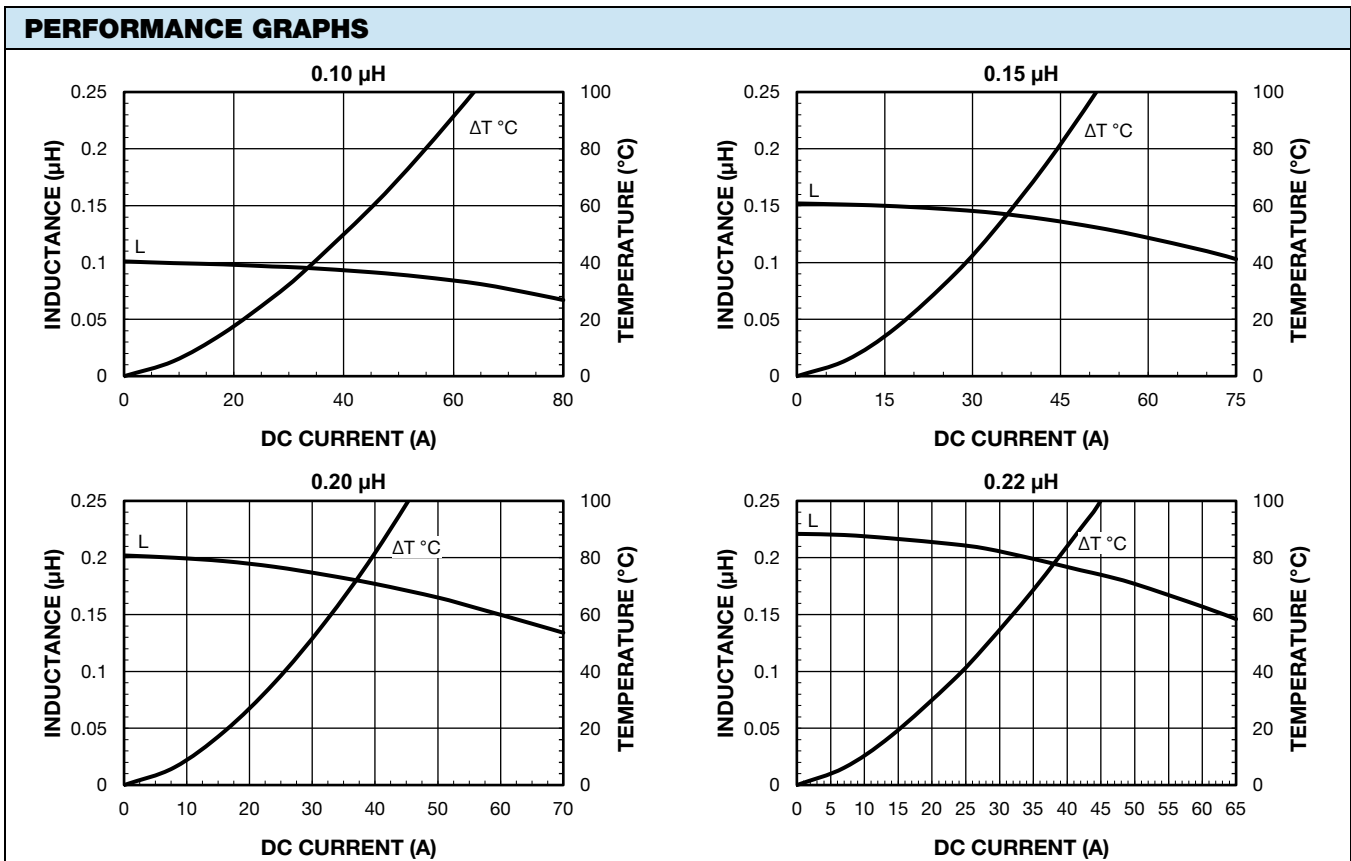
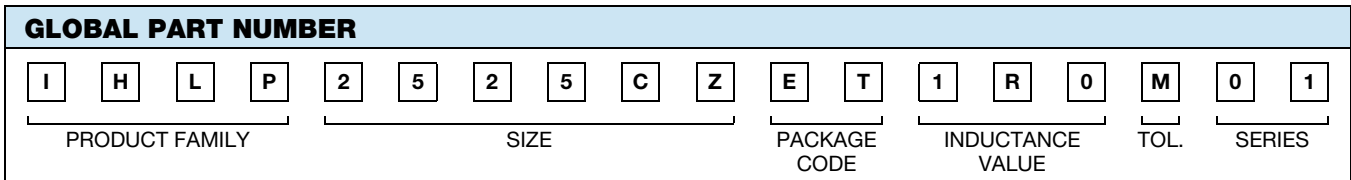
| STANDARD ELECTRICAL SPECIFICATIONS                                |                  |                              |                              |   |  |  |                      |
|---|------------------|------------------------------|------------------------------|---|--|--|----------------------|
| L <sub>0</sub><br>INDUCTANCE<br>AT 100 kHz,<br>1.0 V, 0 A<br>(μH) | TOLERANCE<br>(%) | DCR<br>TYP.<br>25 °C<br>(mΩ) | DCR<br>MAX.<br>25 °C<br>(mΩ) | HEAT RATING<br>CURRENT<br>DC TYP.<br>(A) <sup>(1)</sup> | SATURATION<br>CURRENT<br>DC TYP.<br>(A) <sup>(2)</sup> | SATURATION<br>CURRENT<br>DC TYP.<br>(A) <sup>(3)</sup> | SRF<br>REF.<br>(MHz) |
| 0.10  | ± 30             | 1.5                          | 1.7                          | 32.5  | 60.0   | 69.0   | 300                  |
| 0.15  | ± 30             | 1.9                          | 2.5                          | 26.0  | 52.0   | 63.0   | 220                  |
| 0.20  | ± 30             | 2.4                          | 3.0                          | 24.0  | 41.0   | 54.0   | 160                  |
| 0.22  | ± 30             | 2.5                          | 2.8                          | 23.0  | 40.0   | 53.0   | 150                  |
| 0.33  | ± 20             | 3.5                          | 3.9                          | 20.0  | 30.0   | 39.0   | 140                  |
| 0.47  | ± 20             | 4.0                          | 4.2                          | 17.5  | 26.0   | 32.0   | 80                   |
| 0.68  | ± 20             | 5.0                          | 5.5                          | 15.5  | 25.0   | 31.0   | 67                   |
| 0.82  | ± 20             | 6.7                          | 8.0                          | 13.0  | 23.0   | 28.0   | 61                   |
| 1.0   | ± 20             | 9.0                          | 10                           | 11.0  | 19.0   | 25.0   | 58                   |
| 1.5   | ± 20             | 14                           | 15                           | 9.0   | 17.0   | 23.0   | 38                   |
| 2.2   | ± 20             | 18                           | 20                           | 8.0   | 14.0   | 19.0   | 32                   |
| 3.3   | ± 20             | 28                           | 30                           | 6.0   | 11.5   | 15.0   | 25                   |
| 4.7   | ± 20             | 37                           | 40                           | 5.5   | 9.3  | 12.0   | 21                   |
| 6.8   | ± 20             | 54                           | 60                           | 4.5   | 8.0  | 10.5   | 18                   |
| 8.2   | ± 20             | 64                           | 68                           | 4.0   | 6.6  | 8.8  | 17                   |
| 10  | ± 20             | 102                          | 105                          | 3.0   | 5.2  | 7.0  | 14                   |

### Notes

- All test data is referenced to 25 °C ambient
  - Operating temperature range -40 °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
- (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 %

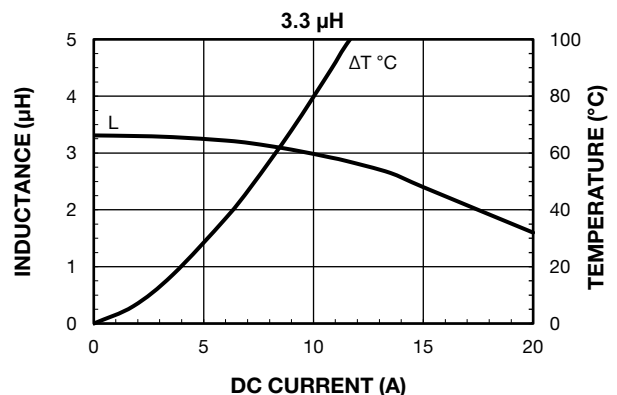
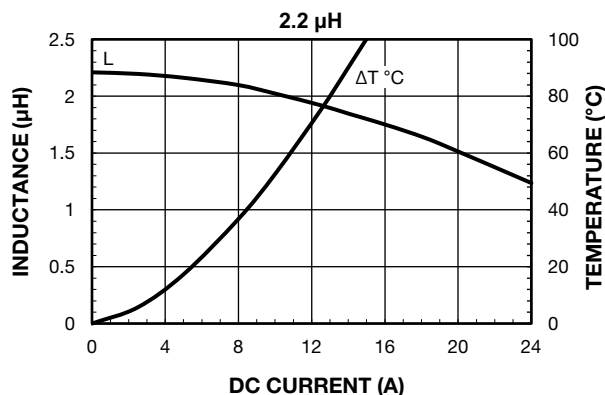
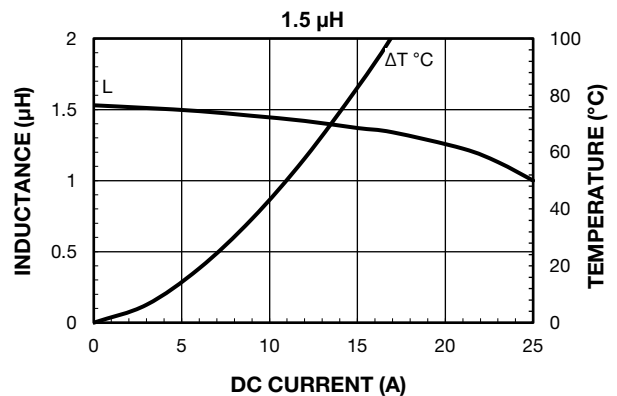
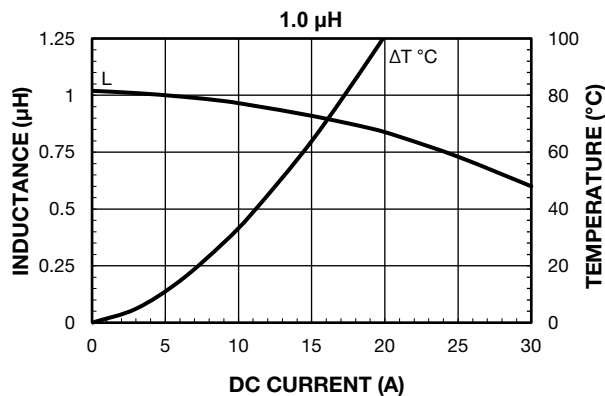
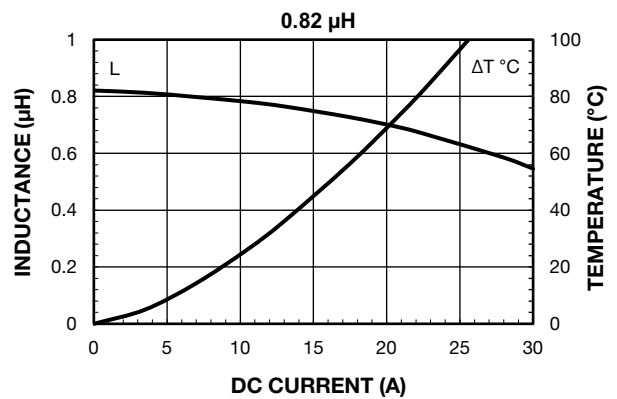
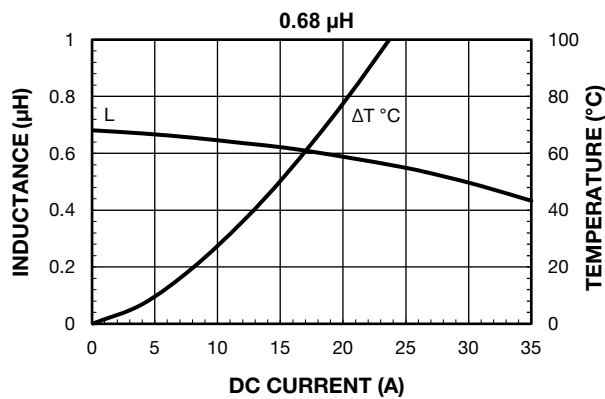
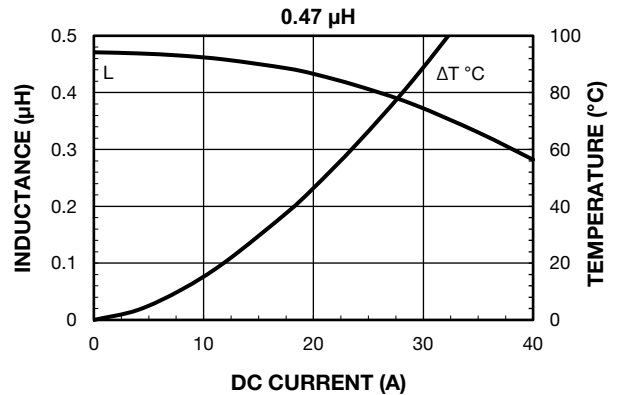
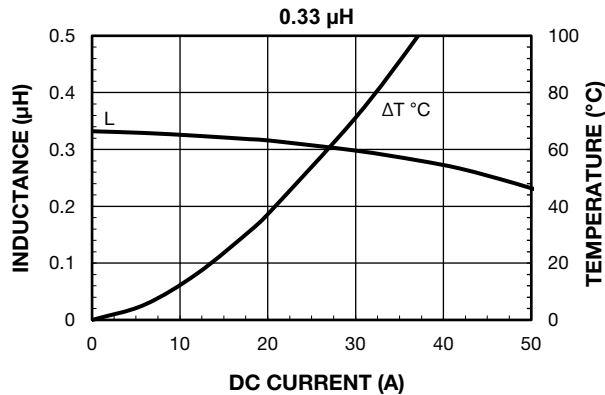


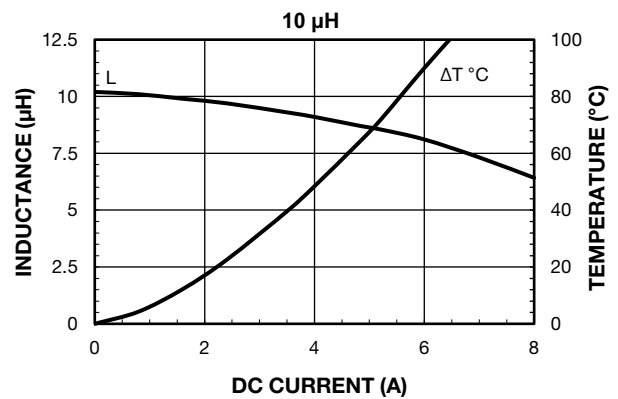
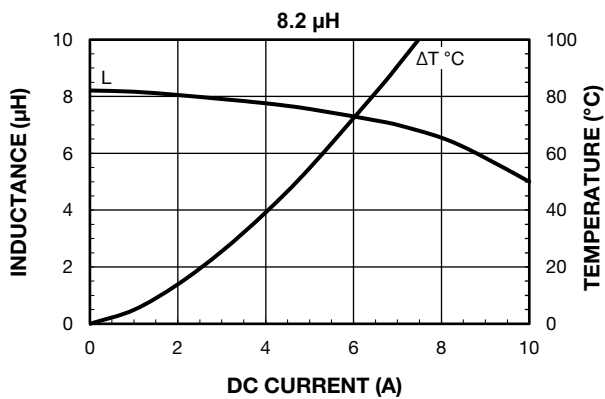
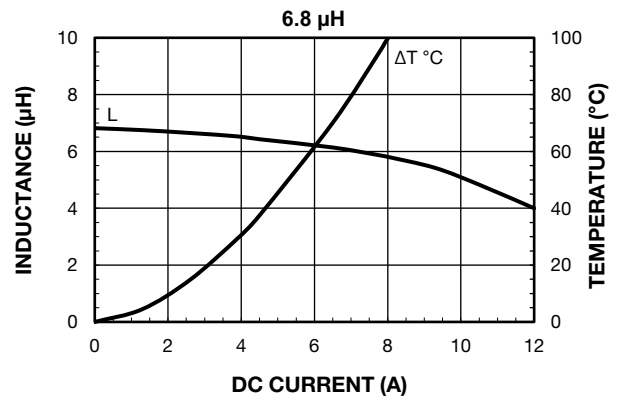
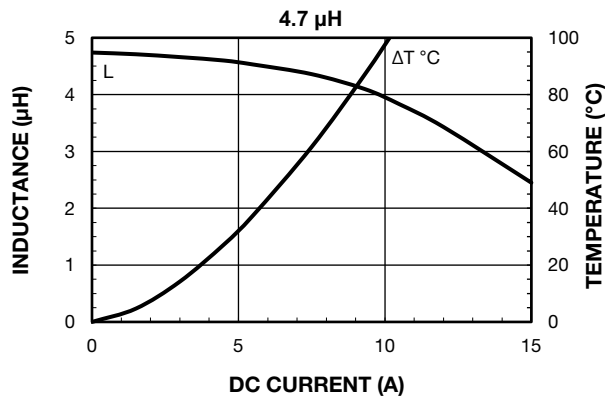
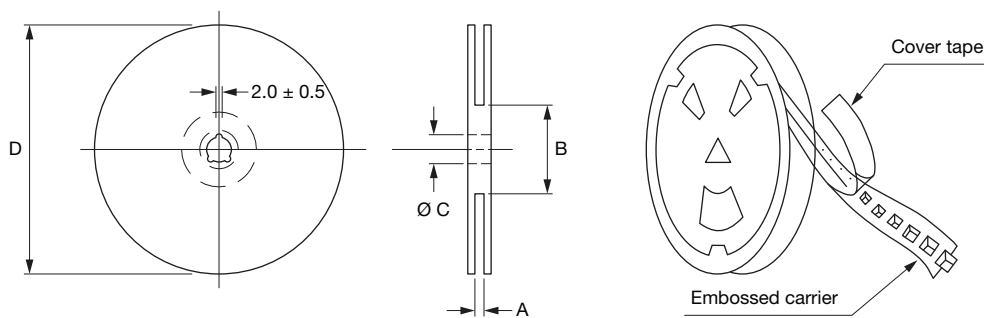
| DESCRIPTION      |                   |                      |              |                                |  |
|------------------|-------------------|----------------------|--------------|--------------------------------|--|
| IHLP-2525CZET-01 | 1.0 $\mu\text{H}$ | $\pm 20\%$           | ET           | e3                             |  |
| MODEL            | INDUCTANCE VALUE  | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |  |





PERFORMANCE GRAPHS

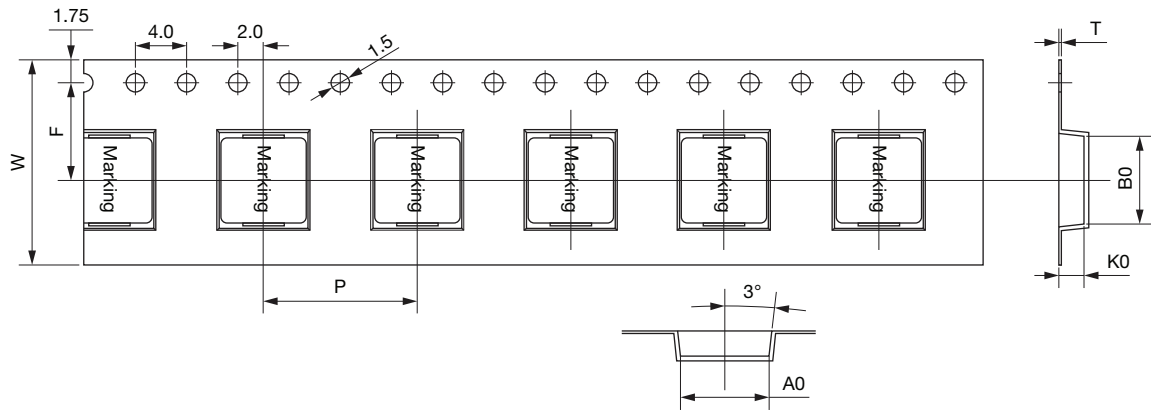


**PERFORMANCE GRAPHS**

**PACKAGING INFORMATION**
**REEL DIMENSIONS** in millimeters


| A                | B         | C                | D   |
|------------------|-----------|------------------|-----|
| 16.4 +2.0 / -0.0 | 100 ± 2.0 | 13.0 +0.5 / -0.2 | 330 |



**TAPE DIMENSIONS** in millimeters



| <b>B0</b> | <b>A0</b> | <b>K0</b> | <b>P</b>   | <b>W</b>   | <b>F</b>  | <b>T</b>    |
|-----------|-----------|-----------|------------|------------|-----------|-------------|
| 7.7 ± 0.1 | 7.0 ± 0.1 | 3.3 ± 0.1 | 12.0 ± 0.1 | 16.0 ± 0.3 | 7.5 ± 0.1 | 0.35 ± 0.05 |

**Note**

- Reel quantity = 1000 pcs



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