

Vishay Dale

# 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> 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) (3)	SATURATION CURRENT DC TYP. (A) (4)
0.22	1.26	1.35	34.0	22.0
0.33	2.01	2.15	27.5	16.0
0.47	2.22	2.38	25.0	14.0
0.68	3.01	3.22	22.2	14.5
0.82	3.63	3.88	19.5	15.0
1.0	4.33	4.63	18.2	12.0
2.2	8.8	9.41	14.5	10.2
3.3	14.0	14.9	10.5	9.7
4.7	21.1	22.6	8.0	8.7
5.6	26.7	28.6	7.4	7.6
6.8	31.2	33.4	7.0	6.7
8.2	42.1	45.0	5.7	6.6
10.0	48.4	51.8	5.4	6.4
15.0	61.0	65.3	4.9	3.7
22.0	88.0	94.2	4.3	3.3
33.0	135	144	3.2	3.2

#### Notes

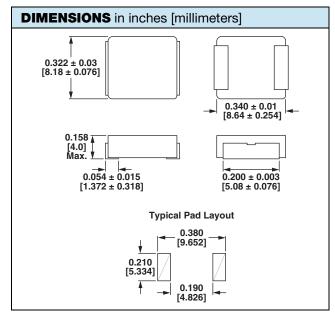
- (1) All test data is referenced to 25 °C ambient
- (2) Operating temperature range 55 °C to + 125 °C
- $^{(3)}$  DC current (A) that will cause an approximate  $\Delta T$  of 40  $^{\circ} C$
- $^{(4)}$  DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %
- (5) The part temperature (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.

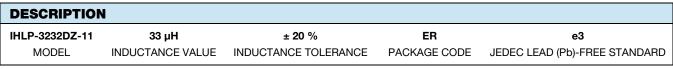
### **FEATURES**

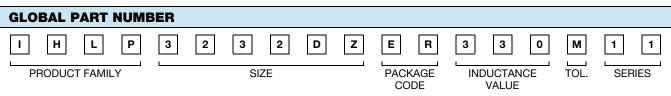
- Shielded construction
- Frequency range up to 1.0 MHz
- Operating temperature up to 125 °C
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- Compliant to RoHS Directive 2002/95/EC

#### **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)

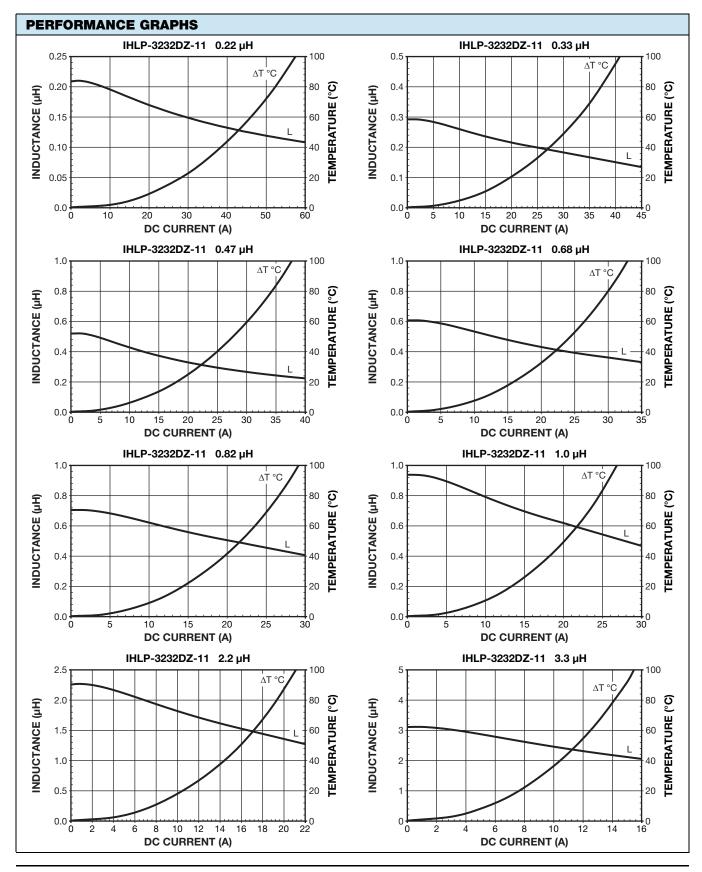






### Low Profile, High Current IHLP® Inductors

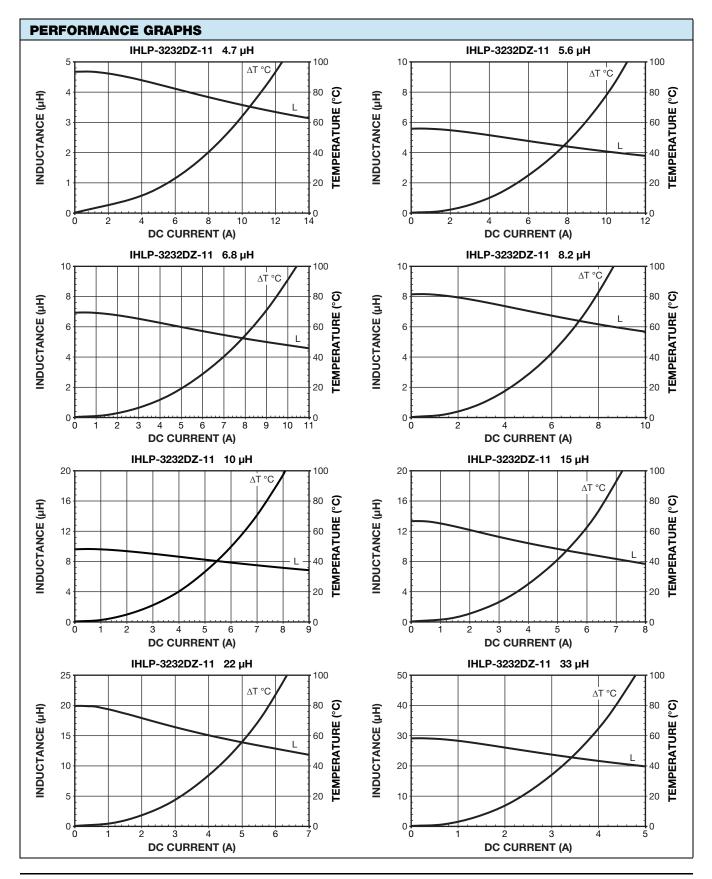






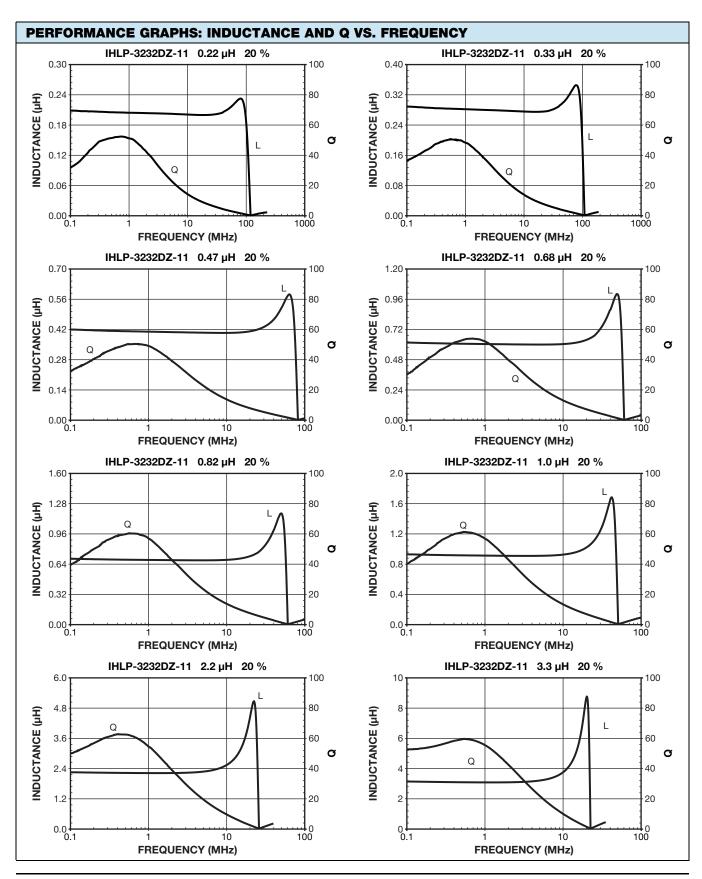
Low Profile, High Current IHLP® Inductors

Vishay Dale



## Low Profile, High Current IHLP® Inductors





Document Number: 34313 Revision: 18-Feb-11



Vishay Dale

