ISHA` www.vishay.com

Vishay Dale

# IHLP<sup>®</sup> Automotive Inductors, High Saturation Series



### **DESIGN SUPPORT TOOLS AVAILABLE**



### \*\* Design Tools

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) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)				
0.22	1.57	1.68	30.7	45.0	126				
0.33	2.00	2.14	29.5	36.0	97				
0.47	2.45	2.62	25.0	31.5	74				
0.68	3.43	3.67	21.0	24.5	59				
0.82	4.13	4.42	19.0	24.2	53				
1.0	5.40	5.78	18.0	24.0	42				
2.2	12.80	13.70	10.5	23.0	33				
3.3	16.50	17.70	9.2	20.0	25				
4.7	29.90	32.00	7.25	15.0	20				
5.6	33.20	35.50	6.8	16.7	18				
6.8	44.60	47.70	5.7	15.2	15				
8.2	47.50	50.80	5.5	10.0	17				
10.0	56.00	59.90	5.2	9.0	15				

#### Notes

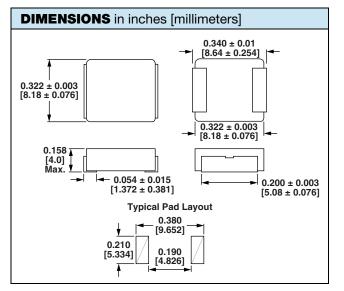
- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +125 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Rated operating voltage (across inductor) = 75 V (1)
- DC current (A) that will cause an approximate  $\Delta T$  of 40 °C <sup>(2)</sup> DC current (A) that will cause  $L_0$  to drop approximately 20 %

### **FEATURES**

- Shielded construction
- Excellent DC/DC energy storage up to 5 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specifications" table)
- 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
- AEC-Q200 qualified
- IHLP design. PATENT(S): <u>www.vishav.com/patents</u>
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### **APPLICATIONS**

- · Engine and transmission control units
- Diesel injection drivers
- DC/DC converters for entertainment / navigation systems
- Noise suppression for motors
  - Windshield wipers
  - Power seats
  - Power mirrors
  - Heating and ventilation blowers
  - HID lighting
- LED drivers



DESCRIPTION								
IHLP-3232DZ-A1 MODEL	<b>4.7 μH</b> INDUCTANCE VALUE	<b>± 20</b> % INDUCTANCE TOLERANCE	ER PACKAGE CODE	<b>e3</b> JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD				
INIODEL	INDUCTAINCE VALUE INDUCTAINCE I OLEHAINCE PACKAGE CODE JEDEC <sup>®</sup> LEAD (PD)-FREE STAN							
GLOBAL PART NUMBER								
I H L	P 3 2	3 2 D Z	E R 4	R 7 M	A 1			
PRODUCT FAM	IILY	SIZE	PACKAGE IN CODE	DUCTANCE TOL VALUE	. SERIES			
PATENT(S): <u>www.vishay.com/patents</u> This Vishay product is protected by one or more United States and international patents.								

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RoHS

COMPLIANT

HALOGEN FREE

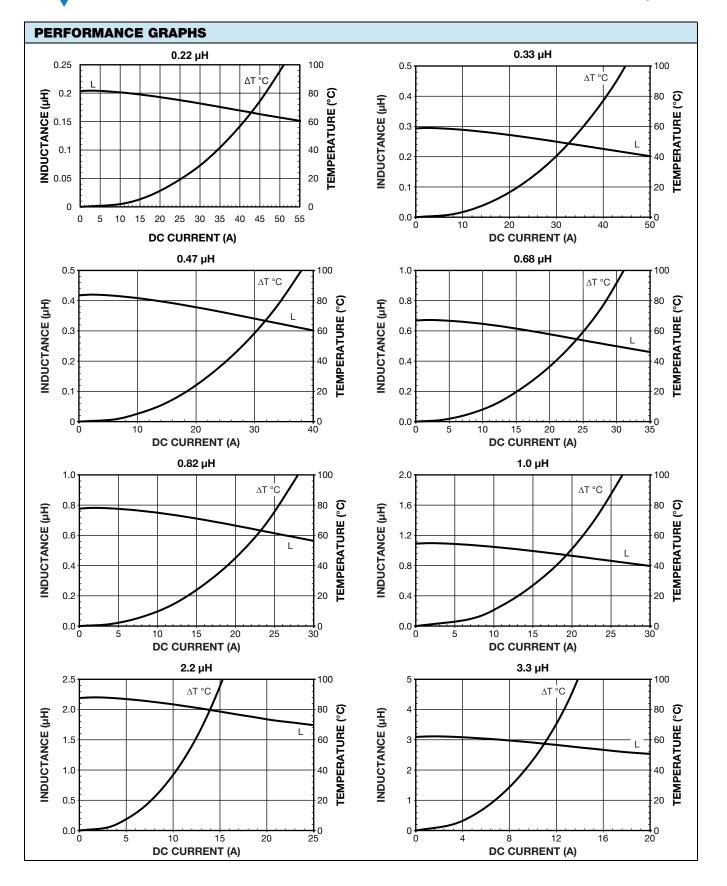
GREEN <u>(5-2008)</u>

<sup>1</sup> 





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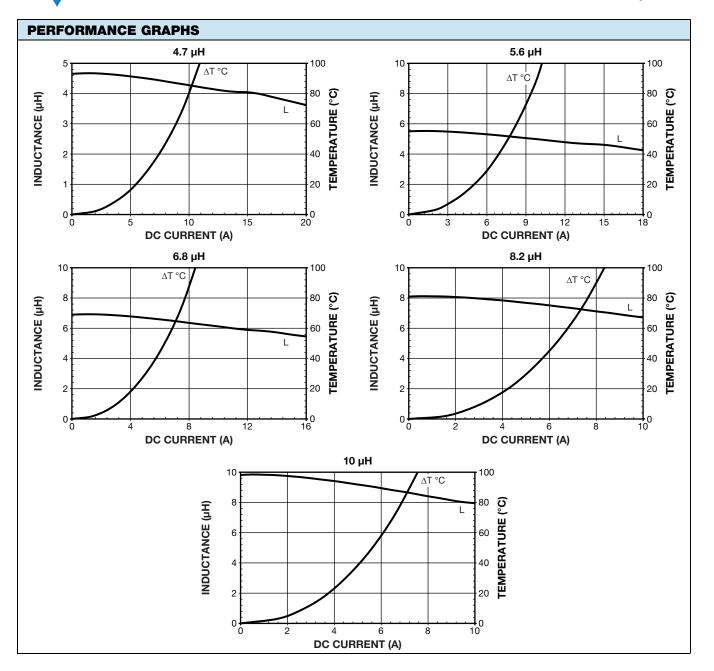
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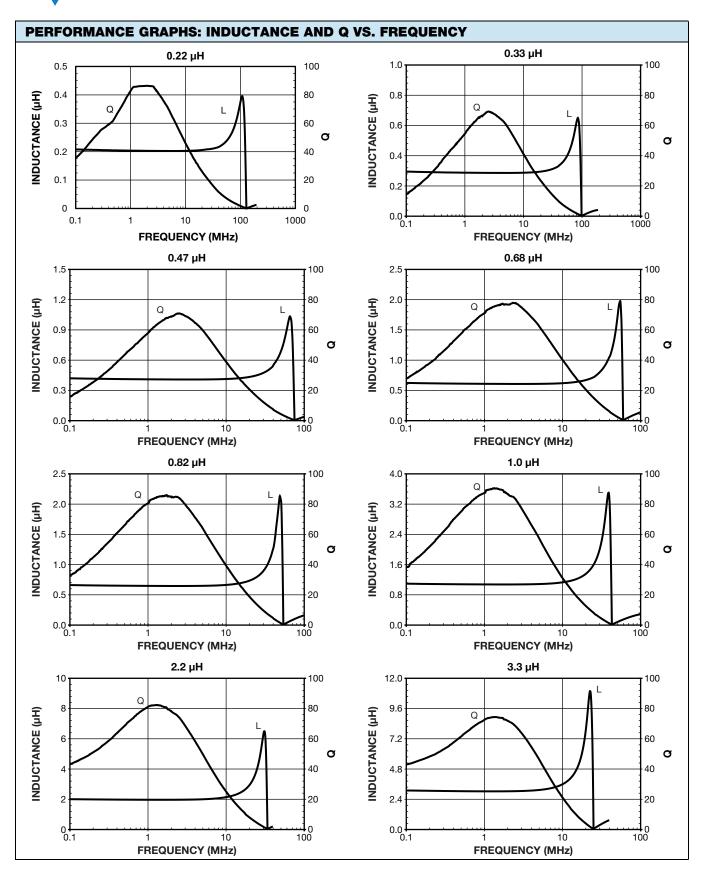


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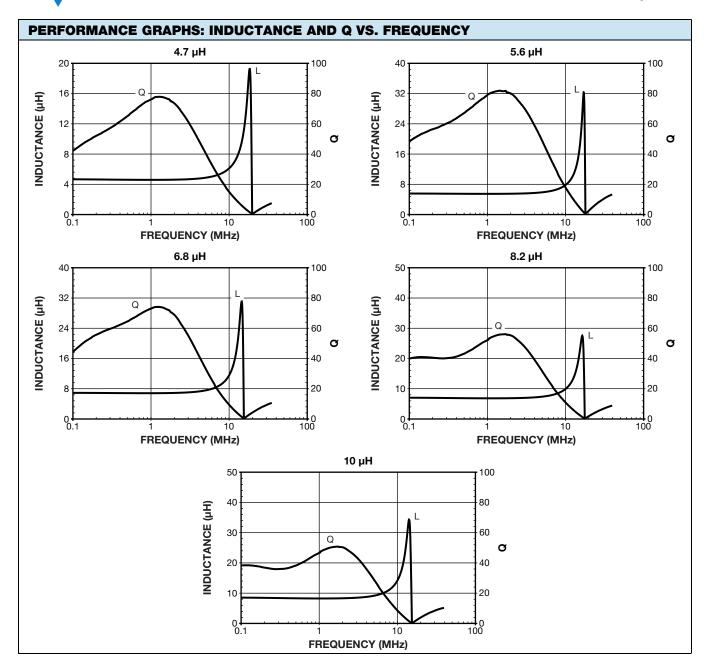
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