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Vishay Dale

# IHLP<sup>®</sup> Automotive Inductors, High Temperature (155 °C) Series



### LINKS TO ADDITIONAL RESOURCES

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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	1.68	1.86	36.0	32.0	117					
0.47	2.38	2.55	27.0	19.0	77					
0.68	3.30	3.53	21.5	16.2	51					
0.82	3.70	4.00	20.0	16.0	49					
1.0	4.58	4.90	19.0	16.2	45					
1.5	6.78	7.25	15.5	14.0	35					
2.2	11.70	12.50	11.5	14.0	32					
3.3	15.40	16.48	10.6	11.8	23					
4.7	26.60	28.46	7.2	9.1	18					
5.6	29.60	31.67	6.9	9.0	18					
10	50.00	53.50	5.1	5.2	13					
15	62.00	66.34	4.8	3.6	10					
22	103.00	110.21	3.7	3.8	9					
33	149.00	159.43	3.1	3.2	6.1					

#### Notes

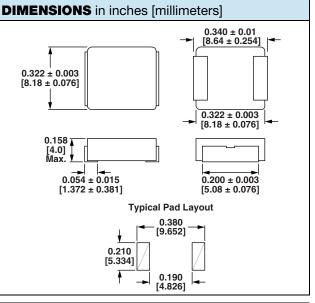
- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Rated operating voltage (across inductor) = 75 V
- <sup>(1)</sup> 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 1 MHz to 2 MHz. Filter inductor applications up to SRF (see "Standard Electrical Specifications" table)
- Operating temperature up to 155 °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.vishay.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 blower / **HID** lighting
- LED drivers



DESCRIPTION										
IHLP-3232DZ-5A	10 µH		± 20 %		ER			e3		
MODEL	INDUCTANCE VALUE		INDUCTANCE TOLERANCE		PACKAGE CODE		JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD			
GLOBAL PAR	<b>NUMBER</b>									
I H L	P 3	2	3 2	DZ	Е	R 1	0 0	Μ	5 A	
MODEL	L	SIZE		PACKAGE IN CODE		NDUCTANCE VALUE	TOL.	SERIES		
PATENT(S): www.							·····			

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>

AUTOMOTIVE

<sup>1</sup> For technical questions, contact: magnetics@vishay.com

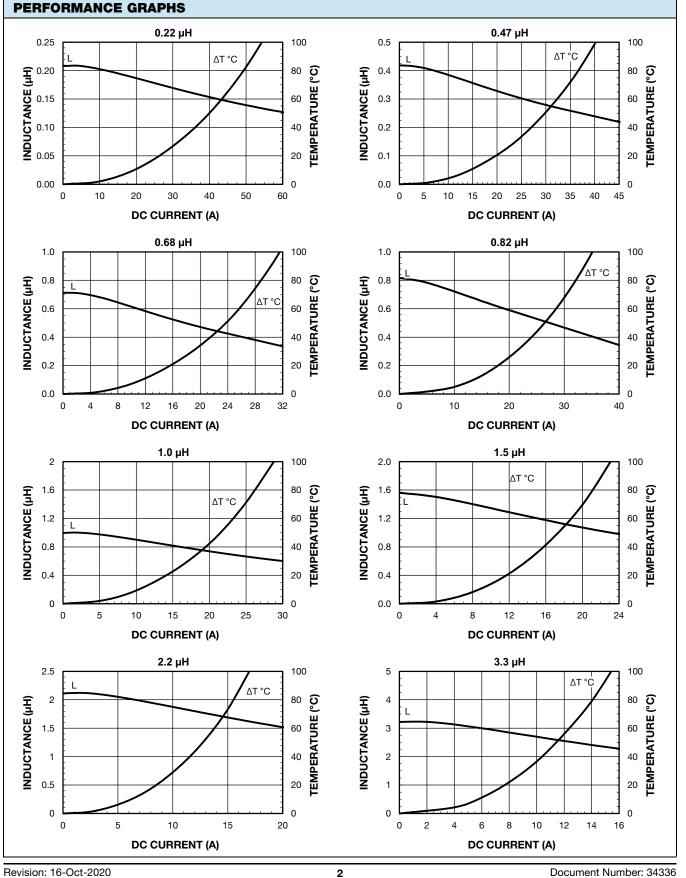
### For Higher Temperature Upgrade to IHLP-3232DZ-8A



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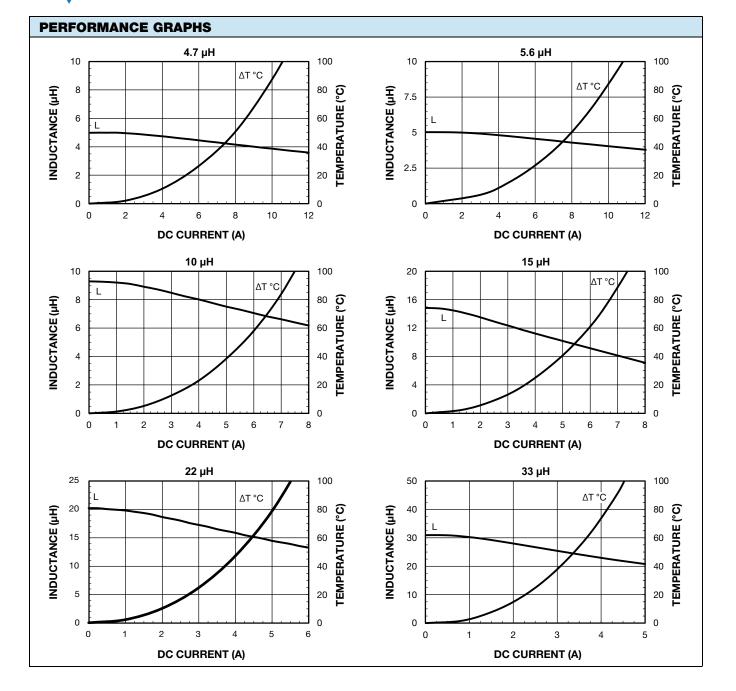
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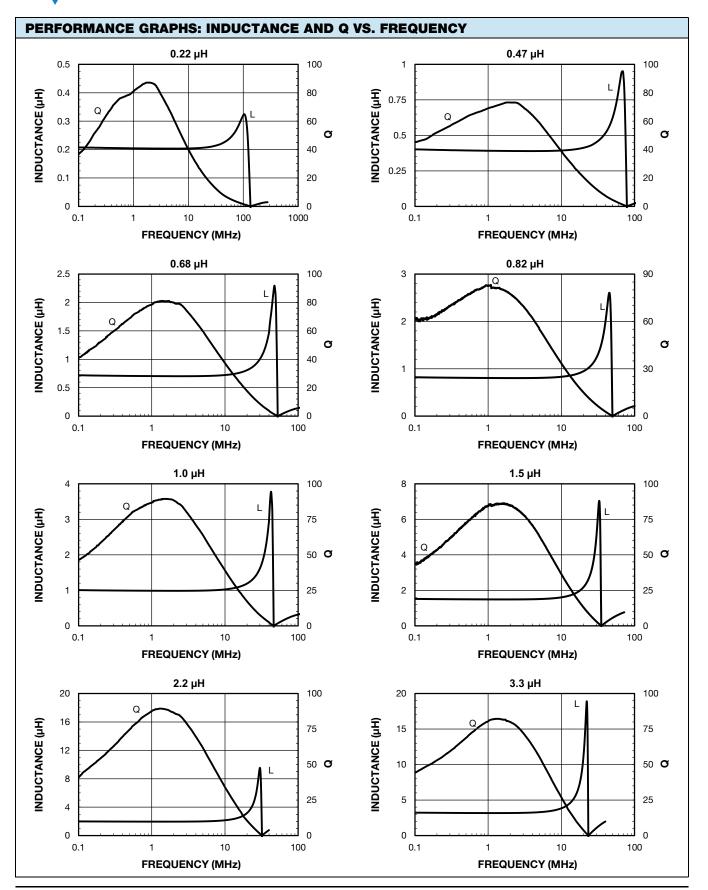
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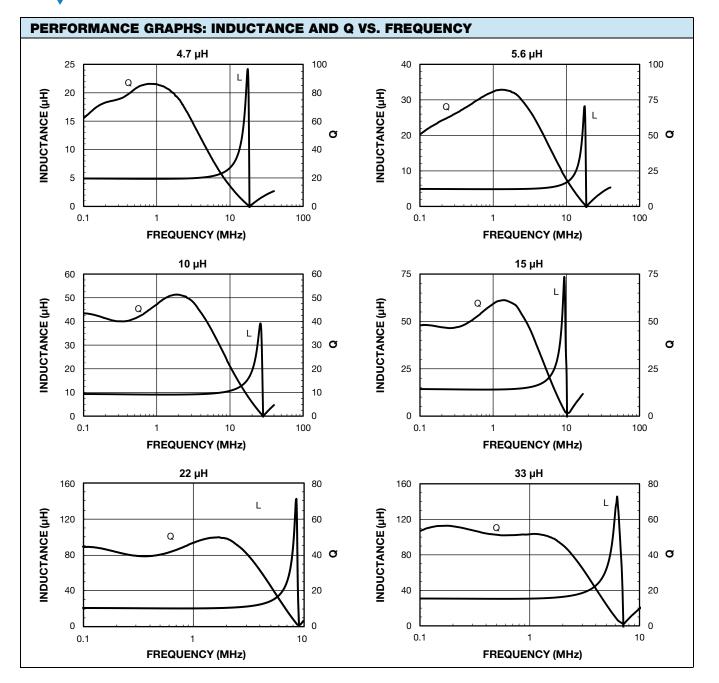
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