

IHLP[®] Commercial Inductors, High Temperature (155 °C) Series



DESIGN SUPPORT TOOLS AVAILABLE

3D Models Desi

STANDARD ELECTRICAL SPECIFICATIONS									
L ₀ INDUCTANCE ± 20 % AT100 kHz, 0.25 V, 0 A (μH)	DCR TYP. 25 °C (mΩ)	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾	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				
47	252.00	269.64	2.4	2.8	5.5				

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
- $^{(1)}$ DC current (A) that will cause an approximate ΔT of 40 $^{\circ}C$
- $^{(2)}\,$ DC current (A) that will cause L_0 to drop approximately 20 %

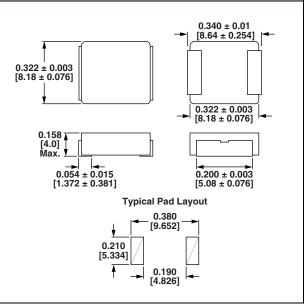
FEATURES

- 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)
- High 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
- IHLP design. PATENT(S): <u>www.vishay.com/patents</u>
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

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)

DIMENSIONS in inches [millimeters]



DESCRIPTION									
IHLP-3232DZ-51	10 µH	± 20 %	ER	e3					
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC [®] LEAD (Pb)-FREE STANDARD					
GLOBAL PAR	F NUMBER								
I H L	P 3 2	3 2 D Z	E R 1	0 0 M 5	1				
MODEL	I L	SIZE	PACKAGE IN CODE	DUCTANCE TOL. SERIE VALUE	ES				

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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COMPLIANT

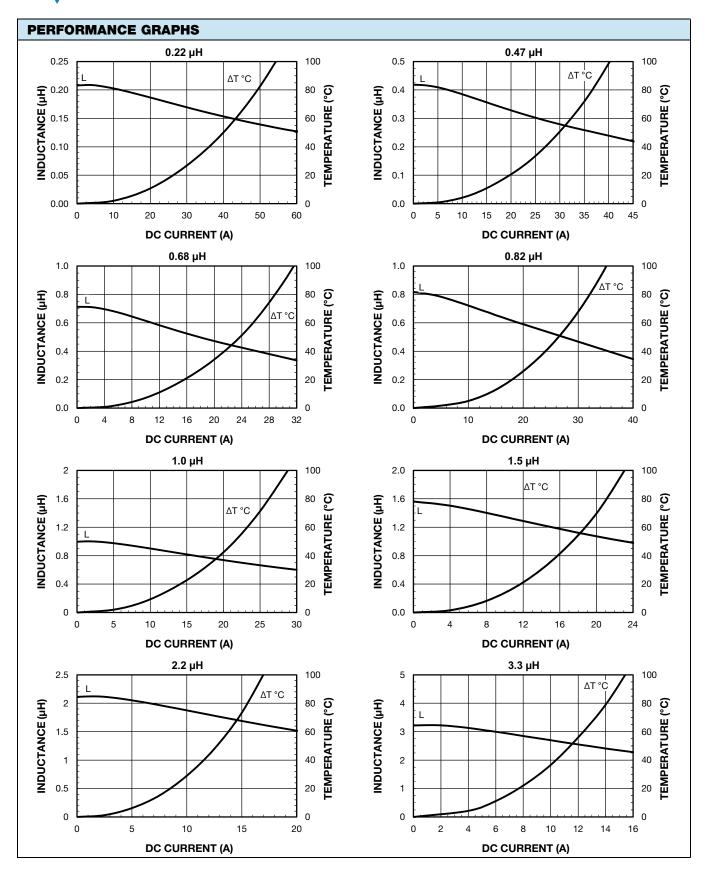
GREEN

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



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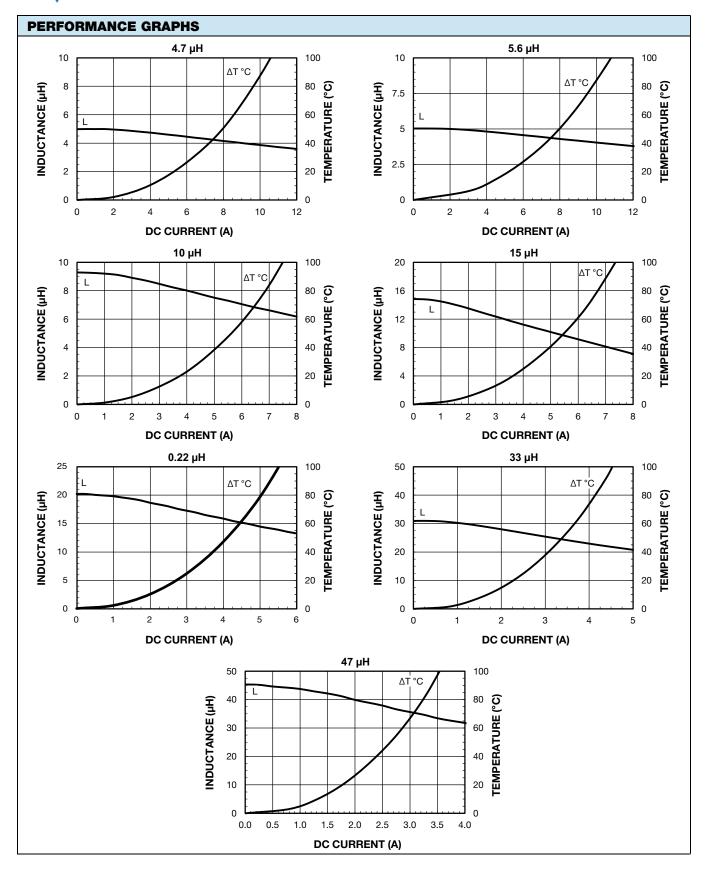
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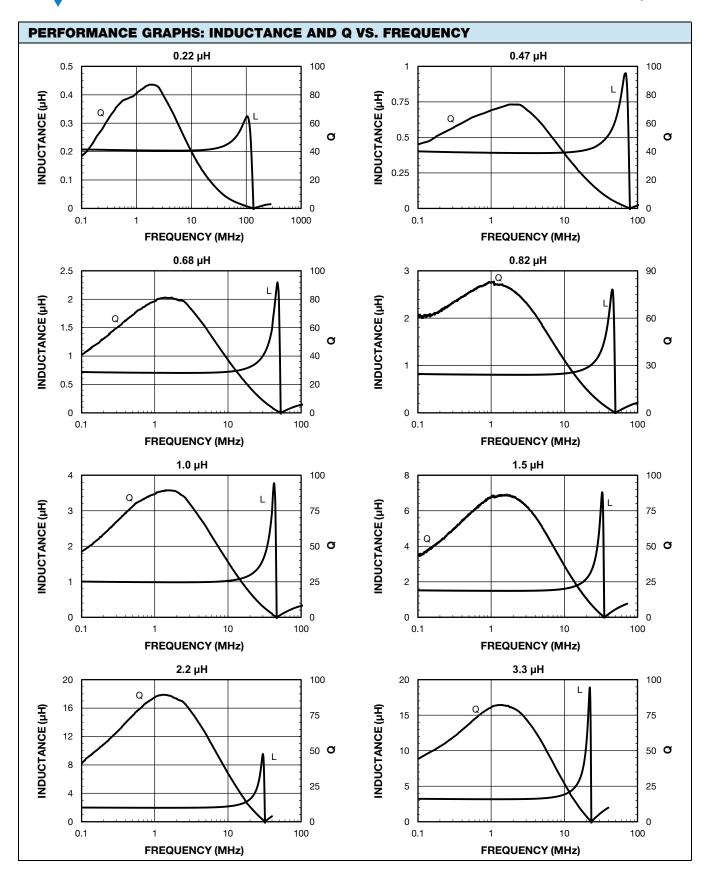
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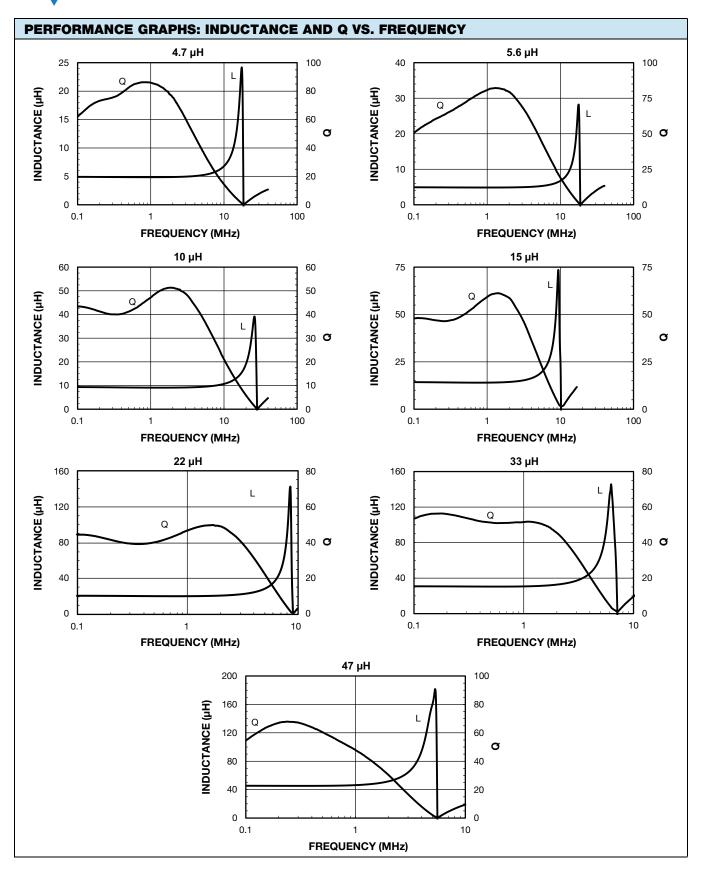
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