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IHLP[®] Commercial Inductors, High Saturation Series, 5 % DCR Tolerance



ADDITIONAL RESOURCES

30	
3D Models	Design Tools

STANDARD ELECTRICAL SPECIFICATIONS						
L ₀ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR ± 5 % AT 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) ⁽¹⁾	SATURATION CURRENT DC TYP. (A) ⁽²⁾	SRF TYP. (MHz)		
0.10	1.30	32.5	60	400		
0.15	1.85	26	52	180		
0.20	2.34	24	41	150		
0.33	3.20	20	30	100		
0.47	3.86	17.5	26	75		
0.68	5.20	15.5	25	62		
0.82	7.41	13	24	60		
1.0	8.84	11	22	55		
1.5	14.50	9	18	40		
2.2	17.73	8	14	38		
3.3	28.21	6	13.5	30		
4.7	37.11	5.5	10	25		
8.2	61.47	4	7.5	17		
10	97.71	3	7.0	16		

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 ΔT of 40 °C
- $^{(2)}$ DC current (Å) that will cause L_0 to drop approximately 20 %

FEATURES

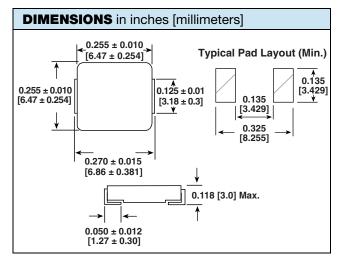
- · Lowest height (3.0 mm) in this package footprint
- Shielded construction



- Excellent DC/DC energy storage up to 5 MHz. **RoHS** Filter inductor applications up to SRF (see COMPLIANT "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
- IHLP design. PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see <u>www.vishav.com/doc?99912</u>

APPLICATIONS

- Tolerance DCR for current sense applications
- Improved current balance in phased power supplies
- Improved thermal management
- PDA / notebook / desktop / server and battery powered devices
- High current, low profile POL converters
- DC/DC converters in distributed power systems
- DC/DC converter for field programmable gate array (FPGA)



DESCRIPTION						
IHLP-2525CZ-07	1.0 μH	± 20 %	ER	e3		
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC [®] LEAD (Pb)-FREE STANDARD		
GLOBAL PART NUMBER						
IHL	P 2 5	2 5 C Z	E R 1	R 0 M 0 7		
PRODUCT FAN	MILY	SIZE	PACKAGE IN CODE	IDUCTANCE TOL. SERIES VALUE		

PATENT(S): <u>www.vishay.com/patents</u> This Vishay product is protected by one or more United States and international patents.

Revision: 17-Jan-2020

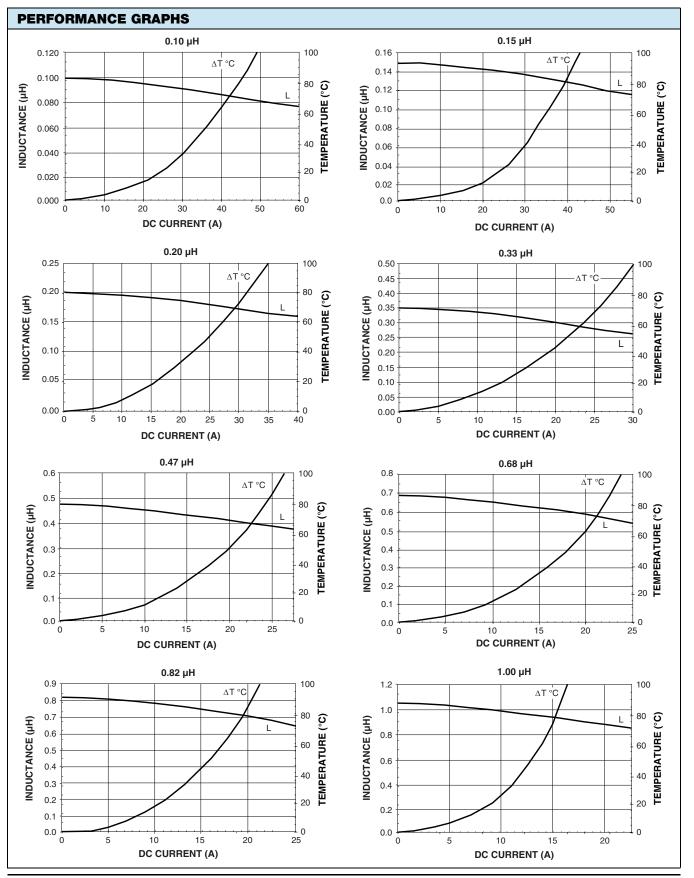
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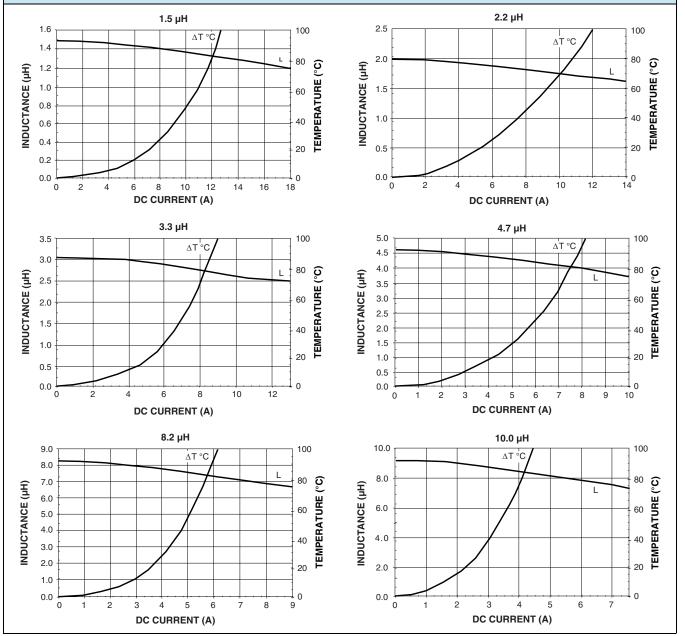
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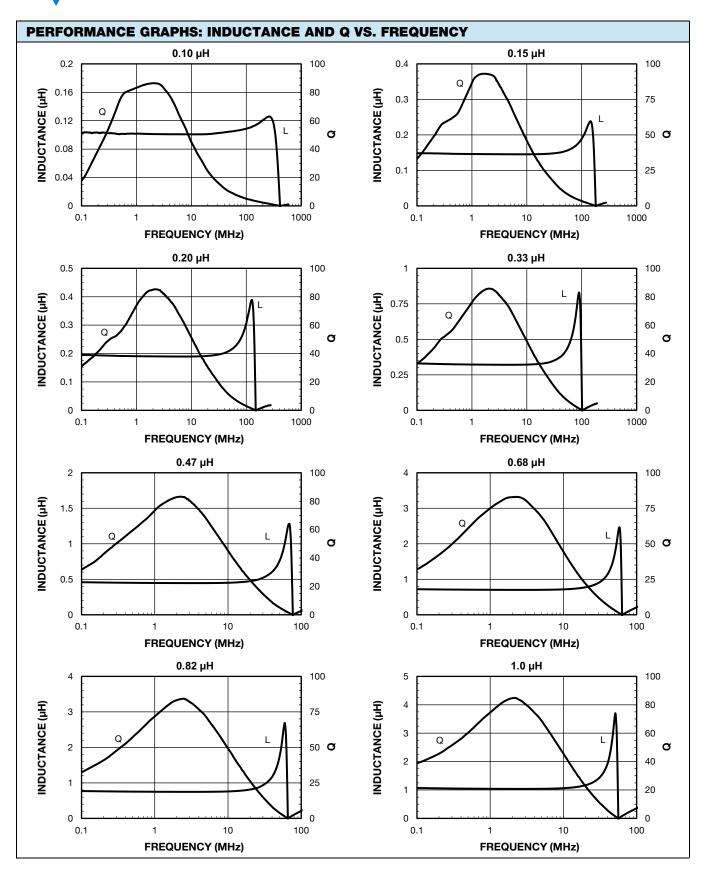
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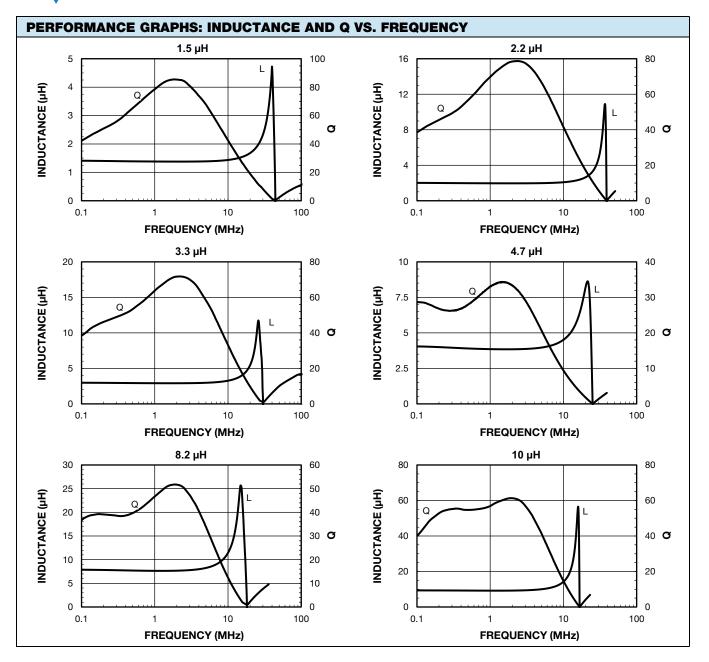
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