

Vishay Dale

## Low Profile, High Current Inductors - Winged Terminals



DESIGN SUPPORT TOOLS click logo to get started

<b>3D</b>	
Models Available	

Design Tools Available

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>(3)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(4)</sup>	
0.10	0.8	0.96	43	84	
0.15	1	1.2	41	75	
0.22	1.1	1.3	38.5	65	
0.33	1.3	1.5	36.5	62	
0.47	1.6	2	32	55	
0.68	2.3	2.5	28	49	
0.82	2.6	3	25	44	
1.0	3.3	3.5	24	40	
1.5	5.1	5.5	19	35	
1.8	6.5	7	16.5	30	
2.2	7.2	8	16	29	
3.3	11	12	12	27	
4.7	14.3	15	10	24	
5.6	18.3	19	9.5	19	
6.8	19.8	22	9	18	
8.2	24.8	28	8.5	16	
10	30.4	34	7	14	

Notes

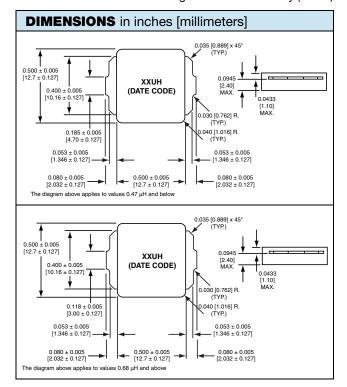
- All test data is referenced to 25 °C ambient
- All test data is referenced to 25 °C ambient Operating temperature range -55 °C to +125 °C The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- (1)
- Rated operating voltage (across inductor) = 75 V DC current (A) that will cause an approximate  $\Delta T$  of 40 °C DC current (A) that will cause L<sub>0</sub> to drop approximately 20 % (2)

#### **FEATURES**

- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
- HALOGEN Ultra low buzz noise, due to composite FREE construction GREEN
- HLP design. PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### 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)



DESCRIPTION						
IHLW-5050CE-01	1.0 μH	± 20 %	ER	e3		
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD		
GLOBAL PART NMBER						
I H L		5 0 C E	E R 1	R 0 M 0 1		
PRODUCT FA	MILY	SIZE	PACKAGE IN CODE	DUCTANCE 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.

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1 For technical questions, contact: magnetics@vishay.com Document Number: 34262

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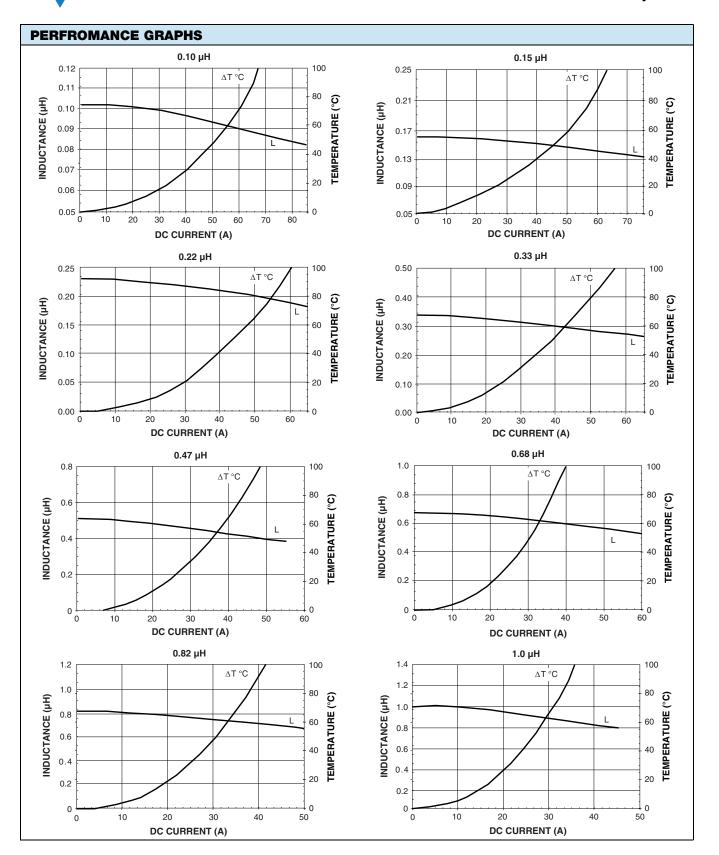
COMPLIANT

(5-2008)

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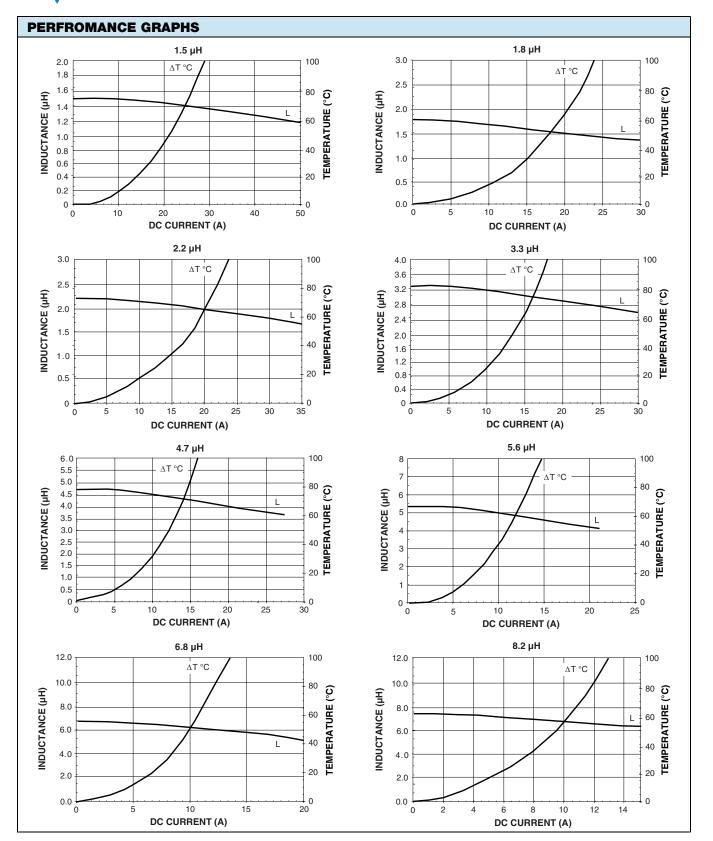
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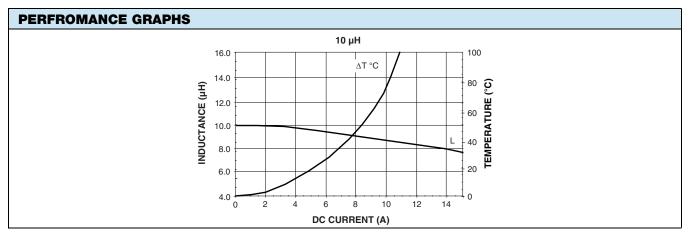
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