

RoHS

# Low Profile, High Current Inductor - Winged Terminals



#### DESIGN SUPPORT TOOLS click logo to get started



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>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>		
0.10	0.70	0.80	46	48		
0.15	0.75	0.85	55	38		
0.22	0.83	0.90	35.5	36		
0.33	1.09	1.18	33.5	26		
0.47	1.60	1.69	31	22		
0.56	1.71	1.81	30.5	23		
0.68	2.05	2.16	29	20		
0.82	2.46	2.60	24	19		
1.0	2.67	2.82	24	18		
1.5	4.20	4.43	20	14.5		
2.2	6.83	7.21	16	14		

#### Notes

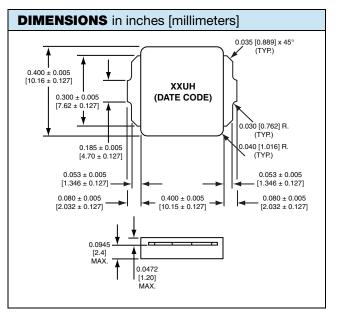
- All test data is referenced to 25 °C ambient
- Operating temperature range -55 °C to +125 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Rated operating voltage (across inductor) = 50 V (1) DC current (A) that will cause an approximate  $\Delta T$  of 40 °C
- (2) DC current (A) that will cause  $L_0$  to drop approximately 20 %

### FEATURES

- Shielded construction
- Frequency range up to 1.0 MHz
- Lowest DCR/µH, in this package size
- Handles high transient current spikes without saturation
   COMPLIANT HALOGEN
   FREE
- 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.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)



DESCRIPTION			
IHLW-4040CF-11 1.0 μH	1.0 μH ± 20 %		e3
MODEL INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD
GLOBAL PART NUMBER			
I   H   L   W   4   0     PRODUCT FAMILY	4 0 C F SIZE	E R 1 PACKAGE I CODE	R O M 1 1   NDUCTANCE VALUE TOL. SERIES
PATENT(S): <u>www.vishay.com/patents</u>			
Revision: 25-Jun-2018	r technical questions, contact: m		Document Number: 3400 <sup>-</sup>

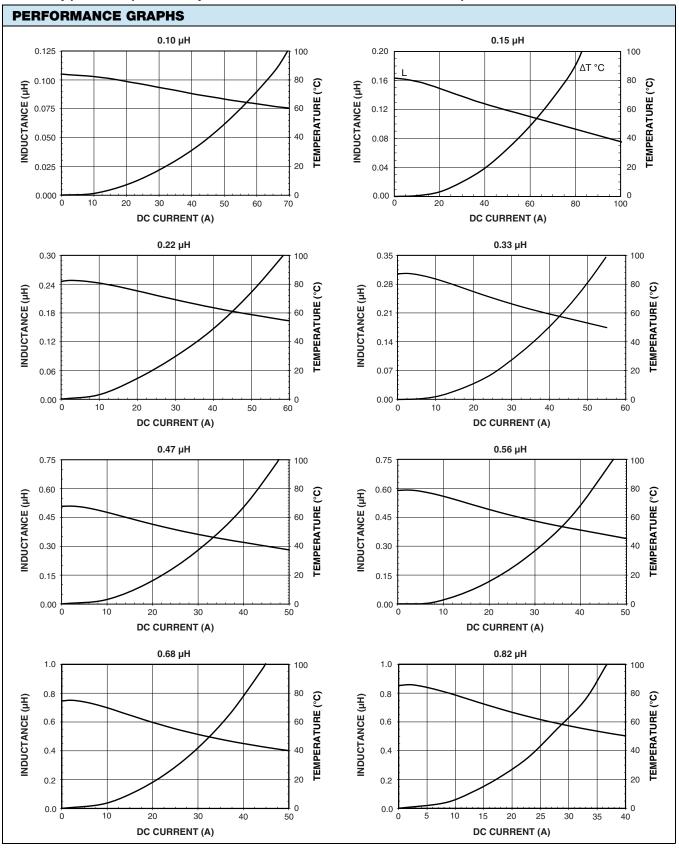
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### IHLW-4040CF-11



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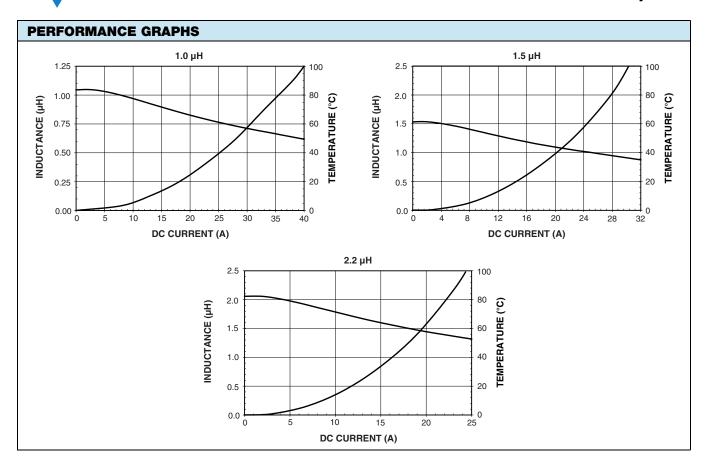
2 For technical questions, contact: <u>magnetics@vishay.com</u> Document Number: 34001

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