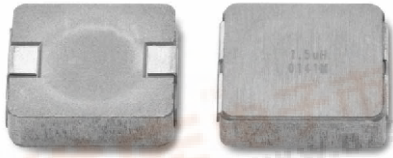


# IHLP-5050CE-06



Vishay Dale

## 10 % DCR Tolerance, Low Profile, Power Inductor



Manufactured under one or more of the following:  
**US Patents; 6,198,375/6,204,744/6,449,829/6,460,244.**  
 Several foreign patents, and other patents pending.

### FEATURES

- Lowest height (3.5 mm) in this package footprint
- Shielded construction
- Frequency range up to 5.0 MHz
- Lowest DCR/ $\mu\text{H}$ , in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction
- 100 % lead (Pb)-free and RoHS compliant



**RoHS**  
COMPLIANT

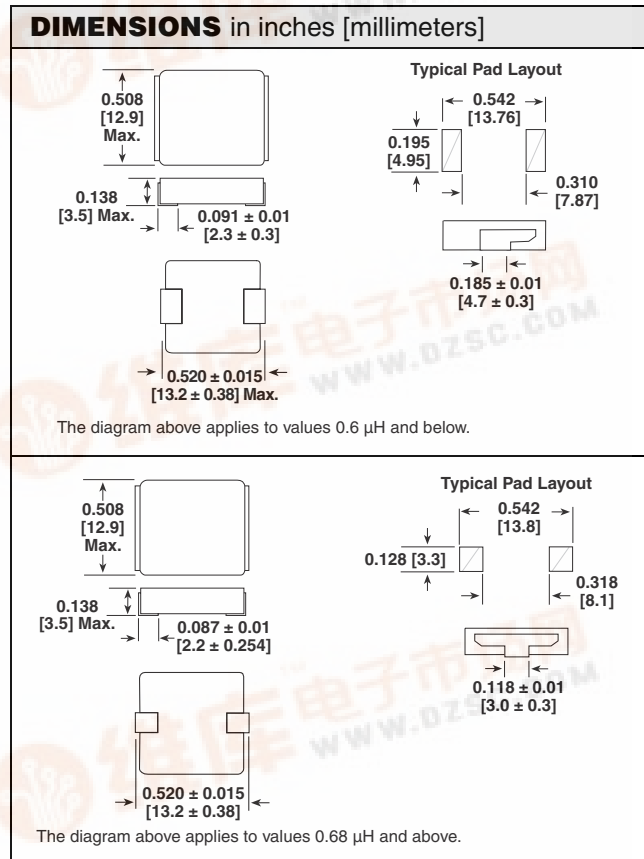
### APPLICATIONS

- 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 Arrays (FPGA)

STANDARD ELECTRICAL SPECIFICATIONS			
Lo INDUCTANCE $\mu\text{H} \pm 20\%$ at 100 kHz, 0.25 V, 0 A	DCR $\text{m}\Omega$ $\pm 10\%$ at 25 °C	HEAT RATING CURRENT DC AMPS <sup>3</sup> TYPICAL	SATURATION CURRENT DC AMPS <sup>4</sup> TYPICAL
0.60	1.85	29	51
0.68	2.34	28	49
1.0	3.21	24	40
1.5	4.97	19	35
2.2	7.20	16	29
3.3	10.69	12	27
4.7	14.27	10	24
5.6	18.19	9.5	19
10	30.86	7	14

### NOTES:

1. All test data is referenced to 25 °C ambient
2. Operating Temperature Range - 55 °C to + 125 °C
3. DC current (A) that will cause an approximate  $\Delta\text{T}$  of 40 °C
4. DC current (A) that will cause Lo to drop approximately 20 %
5. 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.



DESCRIPTION																	
IHLP-5050CE-06 MODEL	1.0 $\mu\text{H}$ INDUCTANCE VALUE	$\pm 20\%$ INDUCTANCE TOLERANCE	ER PACKAGE CODE	e3 JEDEC LEAD (Pb)-FREE STANDARD													
GLOBAL PART NUMBER																	
I	H	L	P	5	0	5	0	C	E	E	R	1	R	0	M	0	6
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE		INDUCTANCE TOLERANCE		SERIES			

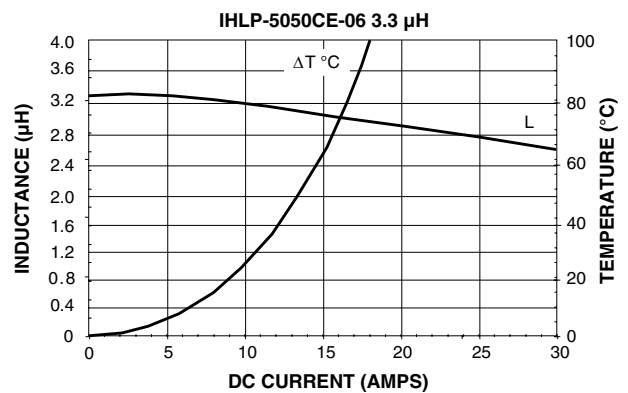
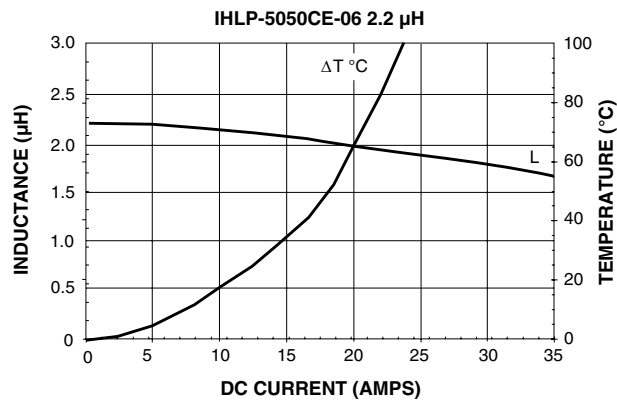
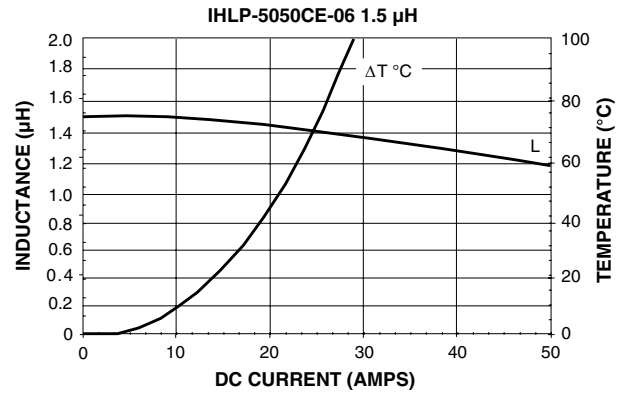
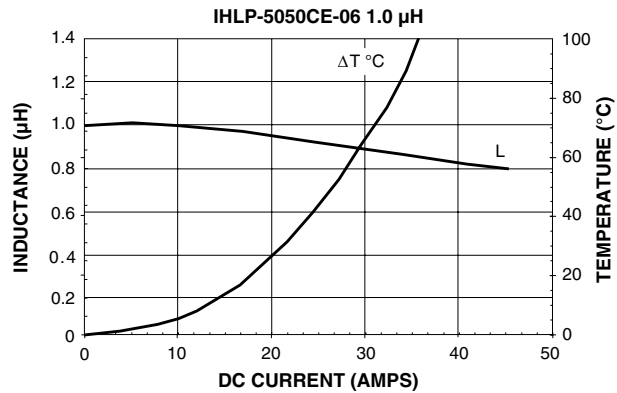
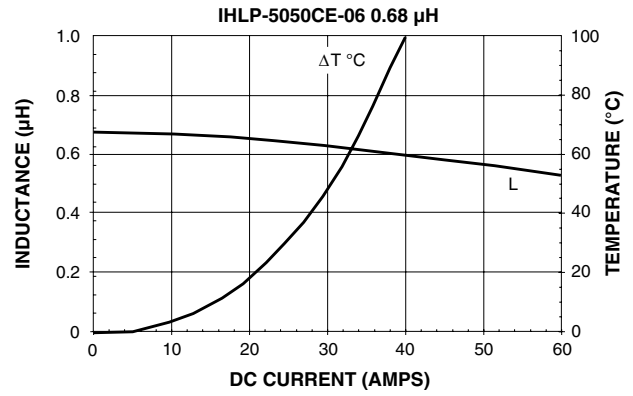
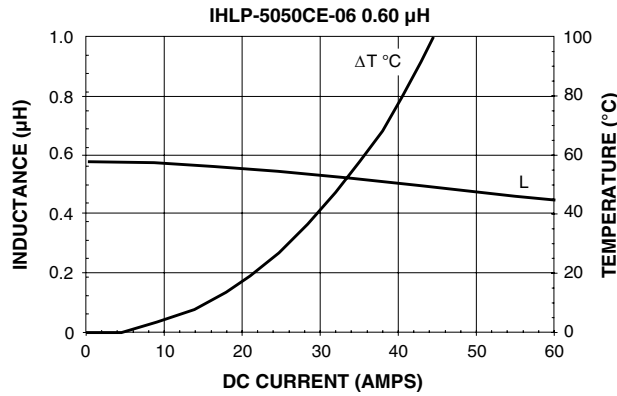


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## PERFORMANCE GRAPHS



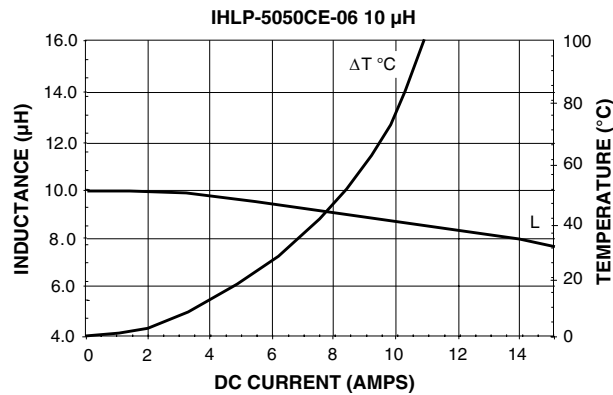
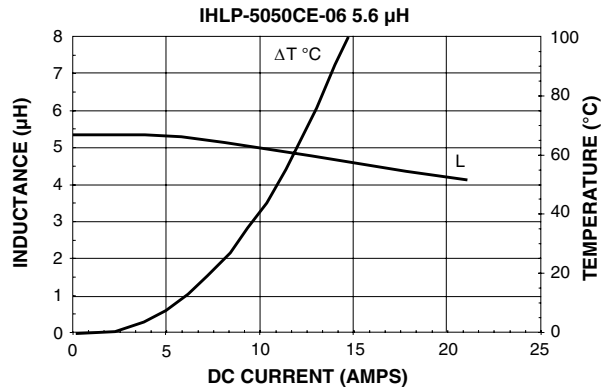
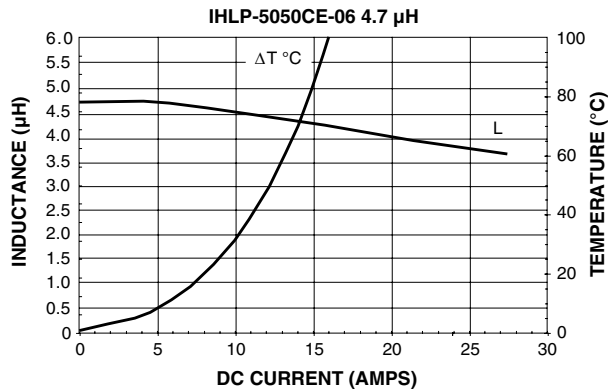
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10 % DCR Tolerance,  
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## PERFORMANCE GRAPHS





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