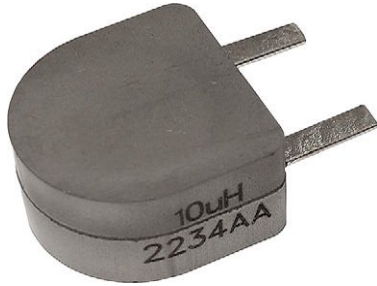


## High Current Through-Hole Inductor, High Temperature



### FEATURES

- High temperature rating, up to 155 °C
- 10 % inductance tolerance
- Magnetically shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without saturation
- AEC-Q200 qualified
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

 AUTOMOTIVE  
GRADE

**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### APPLICATIONS

- Automotive high current filters
- Switching regulators
- In-line noise filters
- Differential mode choke
- Boost power factor correction choke
- 12 V, 24 V, 48 V DC/DC converters
- High current battery charging

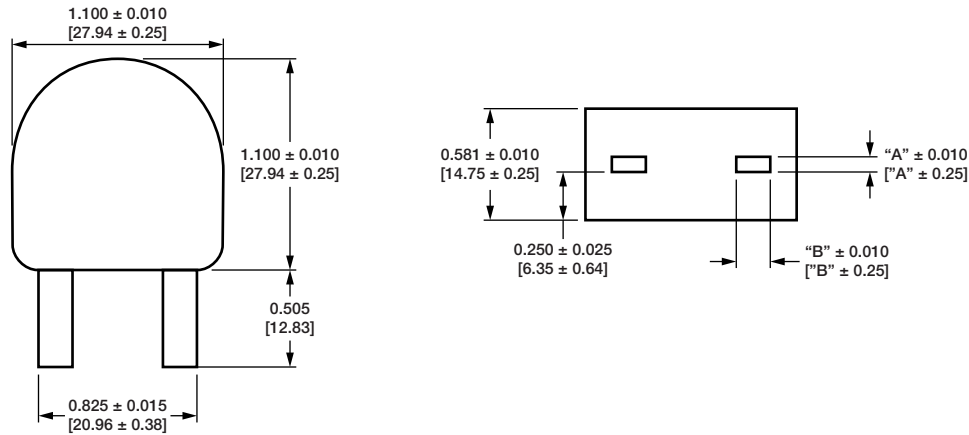
### STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L <sub>0</sub> INDUCTANCE ± 10 % 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)		SATURATION CURRENT DC TYP. (A)		SRF TYP. (MHz)
				40 °C RISE <sup>(1)</sup>	80 °C RISE <sup>(2)</sup>	20 % DROP <sup>(3)</sup>	30 % DROP <sup>(4)</sup>	
				IHXL1100OZEB1R0K3A	1.0	0.28	0.31	
IHXL1100OZEB2R2K3A	2.2	0.47	0.52	79	118	80	114	19
IHXL1100OZEB3R3K3A	3.3	0.70	0.77	76	103	60	86	15
IHXL1100OZEB4R7K3A	4.7	0.92	1.01	65	88	49	70	11
IHXL1100OZEB100K3A	10.0	2.35	2.59	41	55	35	51	7

#### 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
- (1) DC current (A) that will cause an approximate ΔT of +40 °C  
 (2) DC current (A) that will cause an approximate ΔT of +80 °C  
 (3) DC current (A) that will cause L<sub>0</sub> to drop approximately 20 %  
 (4) DC current (A) that will cause L<sub>0</sub> to drop approximately 30 %

**DIMENSIONS** in inches [millimeters]



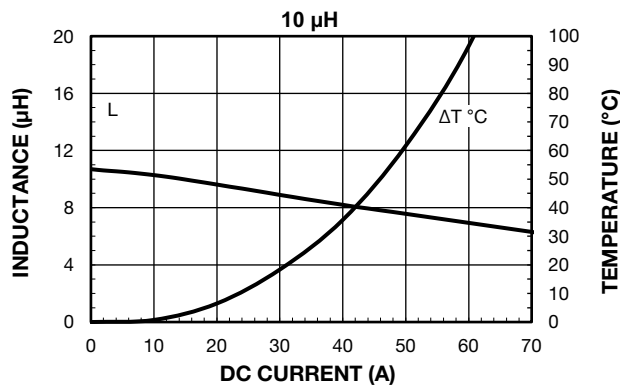
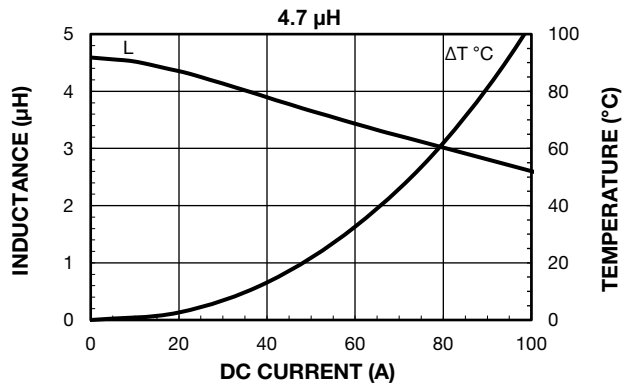
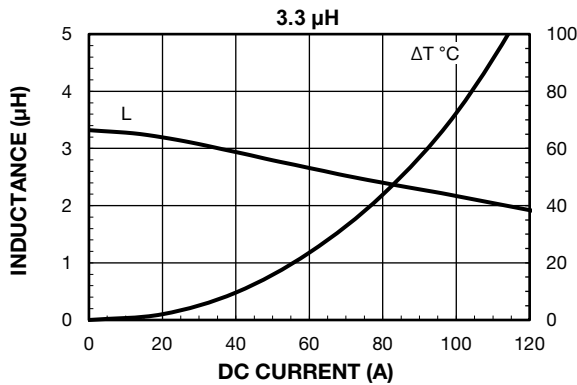
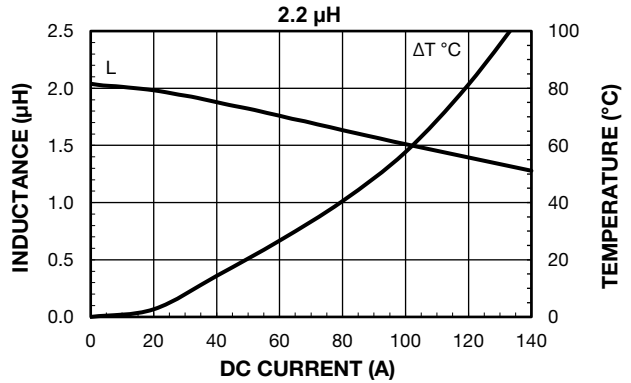
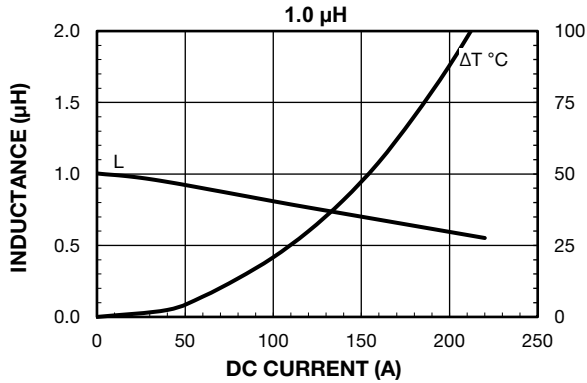
LEAD DIMENSIONS ± 0.010 [± 0.25]		
VALUE	A - HEIGHT	B - WIDTH
1.0	0.122 [3.10]	0.208 [5.28]
2.2	0.079 [2.01]	0.177 [4.50]
3.3	0.079 [2.01]	0.177 [4.50]
4.7	0.059 [1.50]	0.177 [4.50]
10	0.039 [0.99]	0.157 [3.99]

DESCRIPTION				
<b>IHXL-1100OZ-3A</b>	<b>1.0 μH</b>	<b>± 10 %</b>	<b>BULK / TRAY PACKAGING</b>	<b>e3</b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER																	
I	H	X	L	1	1	0	0	O	Z	E	R	1	R	0	K	3	A
PRODUCT FAMILY				SIZE					PACKAGE CODE		INDUCTANCE VALUE		TOL.	SERIES			

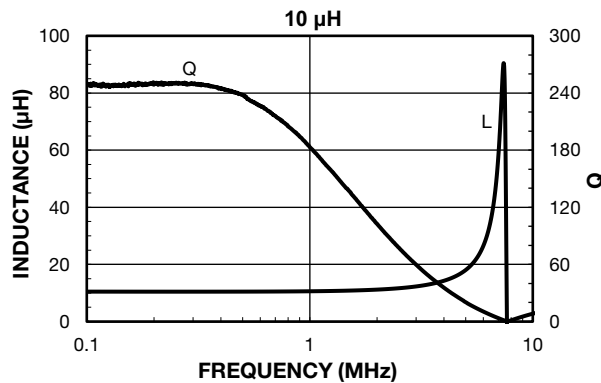
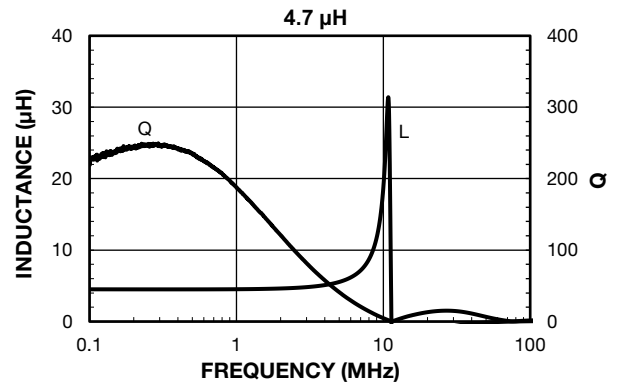
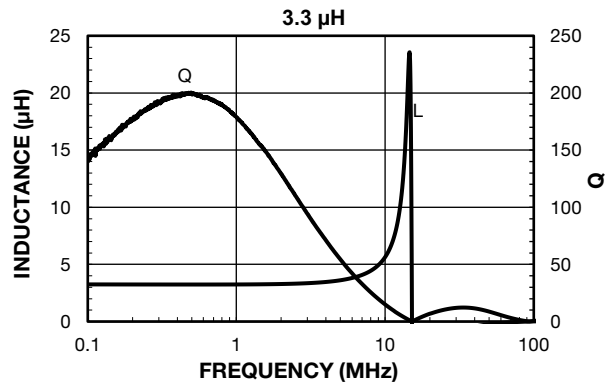
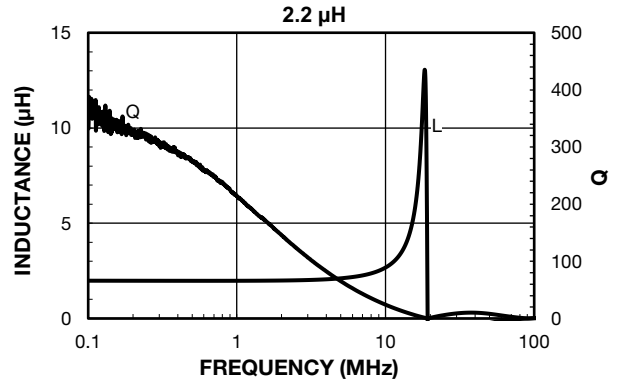
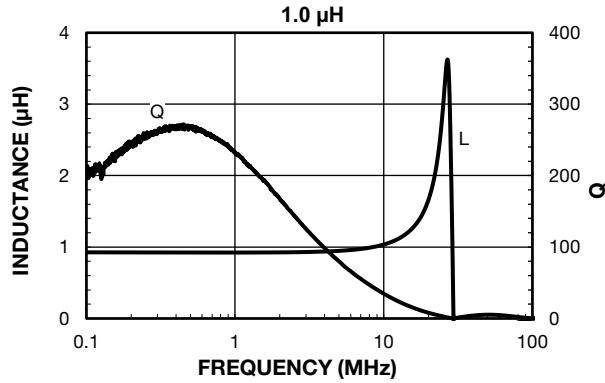


PERFORMANCE GRAPHS: INDUCTANCE VS. CURRENT





PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY





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