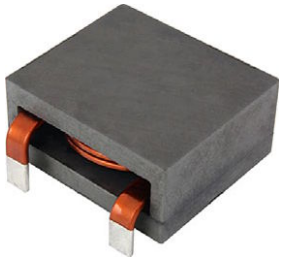
# Low Profile, Through-Hole, High Current Inductors, Edge-Wound Series



## FEATURES

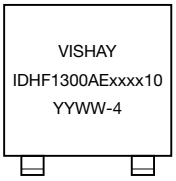
- Low loss ferrite core for high performance designs with minimal ac power losses
- Low DCR losses that provides high rated current performance
- Low profile package - better for mechanical shock and vibration
- Hot dipped Sn plating provides low risk of whisker growth
- Custom options are available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free
RoHS COMPLIANT
HALOGEN FREE
GREEN (5-2008)

## LINKS TO ADDITIONAL RESOURCES

3D Models

## MARKINGS




## APPLICATIONS

- High current and high temperature applications
- DC/DC converters
- Motor noise suppression
- Commercial

## STANDARD ELECTRICAL SPECIFICATIONS

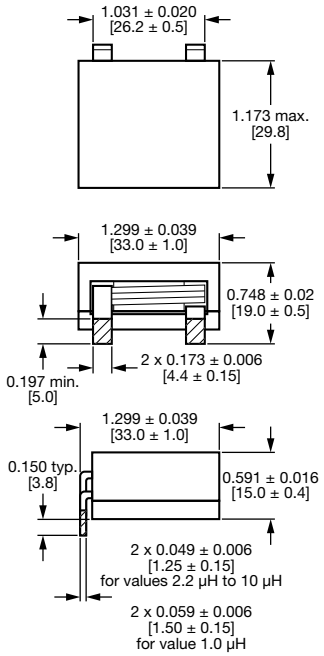
| $L_0$ INDUCTANCE ± 10 % AT 100 kHz, 0.25 V, 0 A (µH) | DCR MAX. 25 °C (mΩ) | HEAT RATING CURRENT DC TYP. (1) (A) | SATURATION CURRENT DC TYP. AT 100 °C (2) (A) | SRF TYP. (MHz) | HIPOT CORE TO WIRE, 500 $V_{DC}$, 2 s (mA) |
|---|---|---|---|---|---|
| 1.0 | 0.79 | 72 | 230 | 39 | < 2 |
| 2.2 | 1.11 | 59 | 148 | 23 | < 2 |
| 3.3 | 1.11 | 59 | 112 | 18 | < 2 |
| 4.7 | 1.11 | 59 | 82 | 16 | < 2 |
| 5.0 | 1.11 | 59 | 78 | 15 | < 2 |
| 5.6 | 1.11 | 59 | 63 | 14 | < 2 |
| 6.8 | 1.11 | 59 | 52 | 12 | < 2 |
| 8.2 | 1.11 | 59 | 43 | 10 | < 2 |
| 10 | 1.11 | 59 | 35 | 9 | < 2 |

**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

(1) DC current (A) that will cause an approximate ΔT of 40 °C
(2) DC current (A) that will cause $L_0$ to drop approximately 20 %

## DIMENSIONS in inches [millimeters]



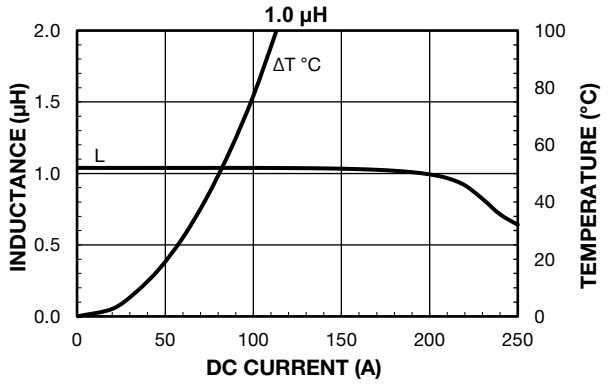

## DESCRIPTION

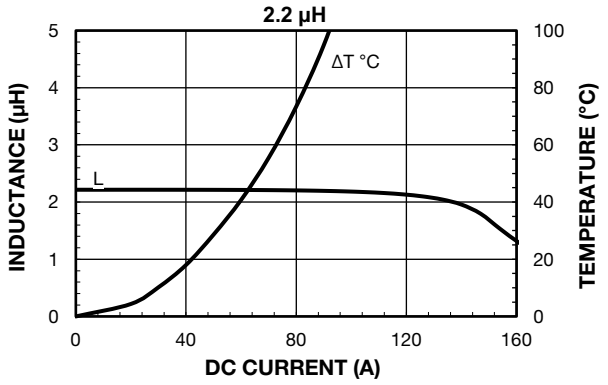
| IHDF-1300AE-10 | 4.7 µH | ± 10 % | EH | e3 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

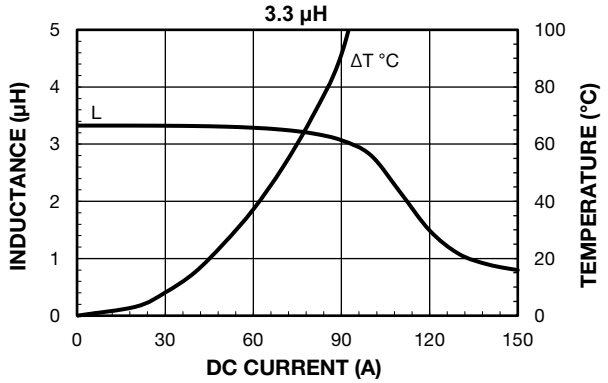
## GLOBAL PART NUMBER

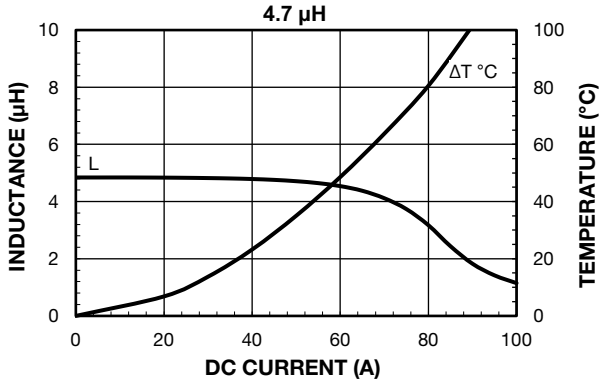
| I | H | D | F | 1 | 3 | 0 | 0 | A | E | E | H | 4 | R | 7 | K | 1 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODEL | | | | SIZE | | | | | | LEAD (Pb)- FREE | STYLE H: horizontal | INDUCTANCE VALUE | | | TOL. | SERIES | |

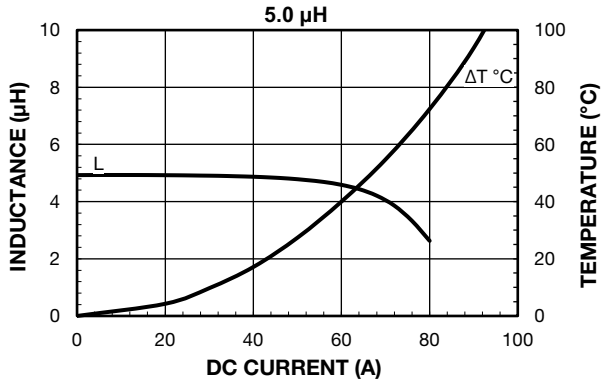
## PERFORMANCE GRAPHS

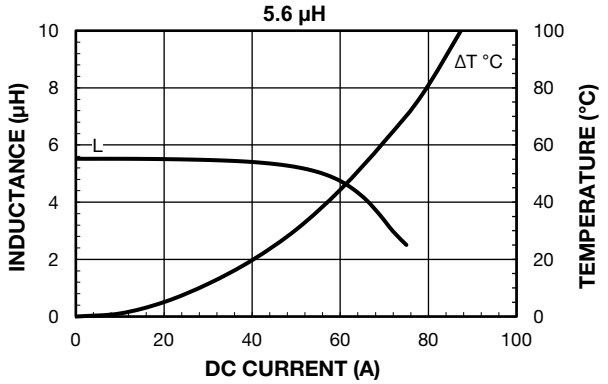


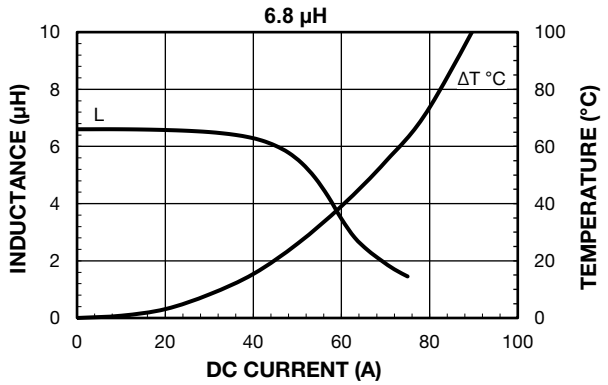



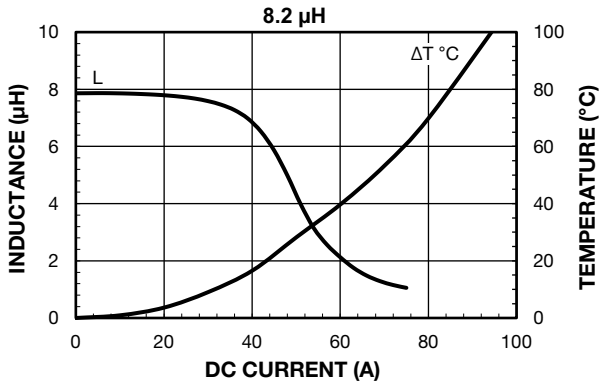



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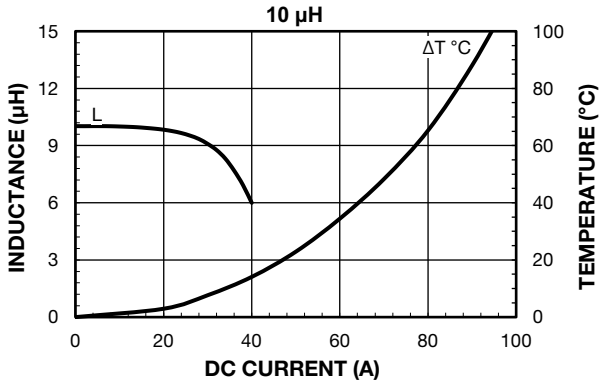
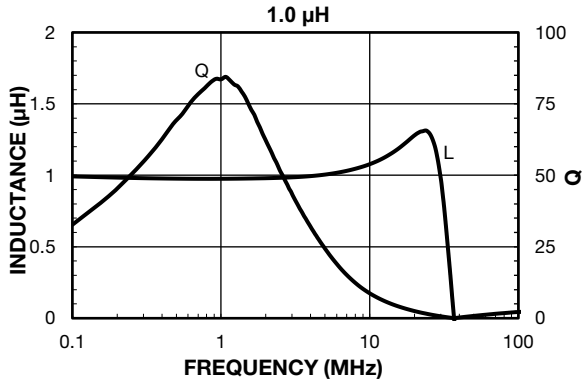
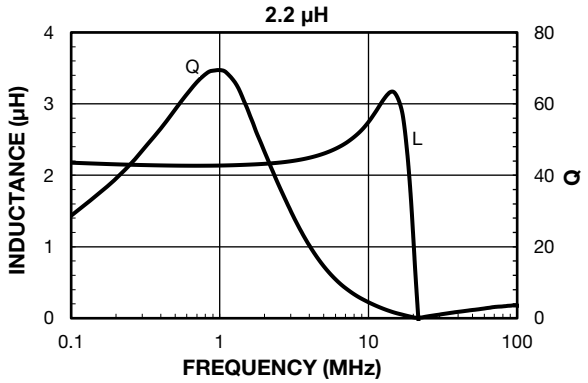
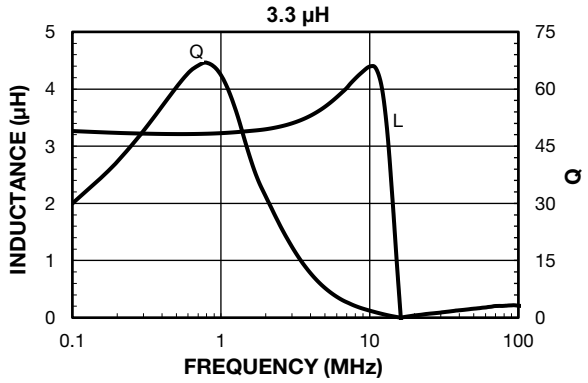
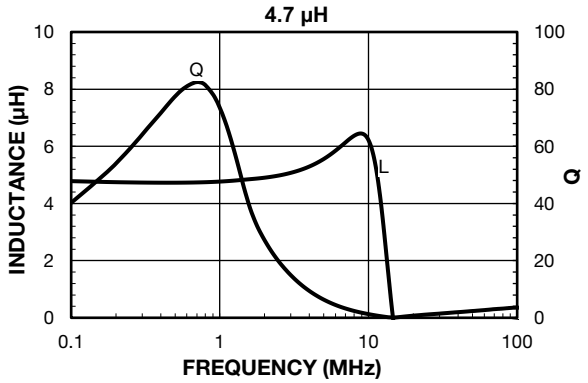



## PERFORMANCE GRAPHS: INDUCTANCE AND Q VS. FREQUENCY



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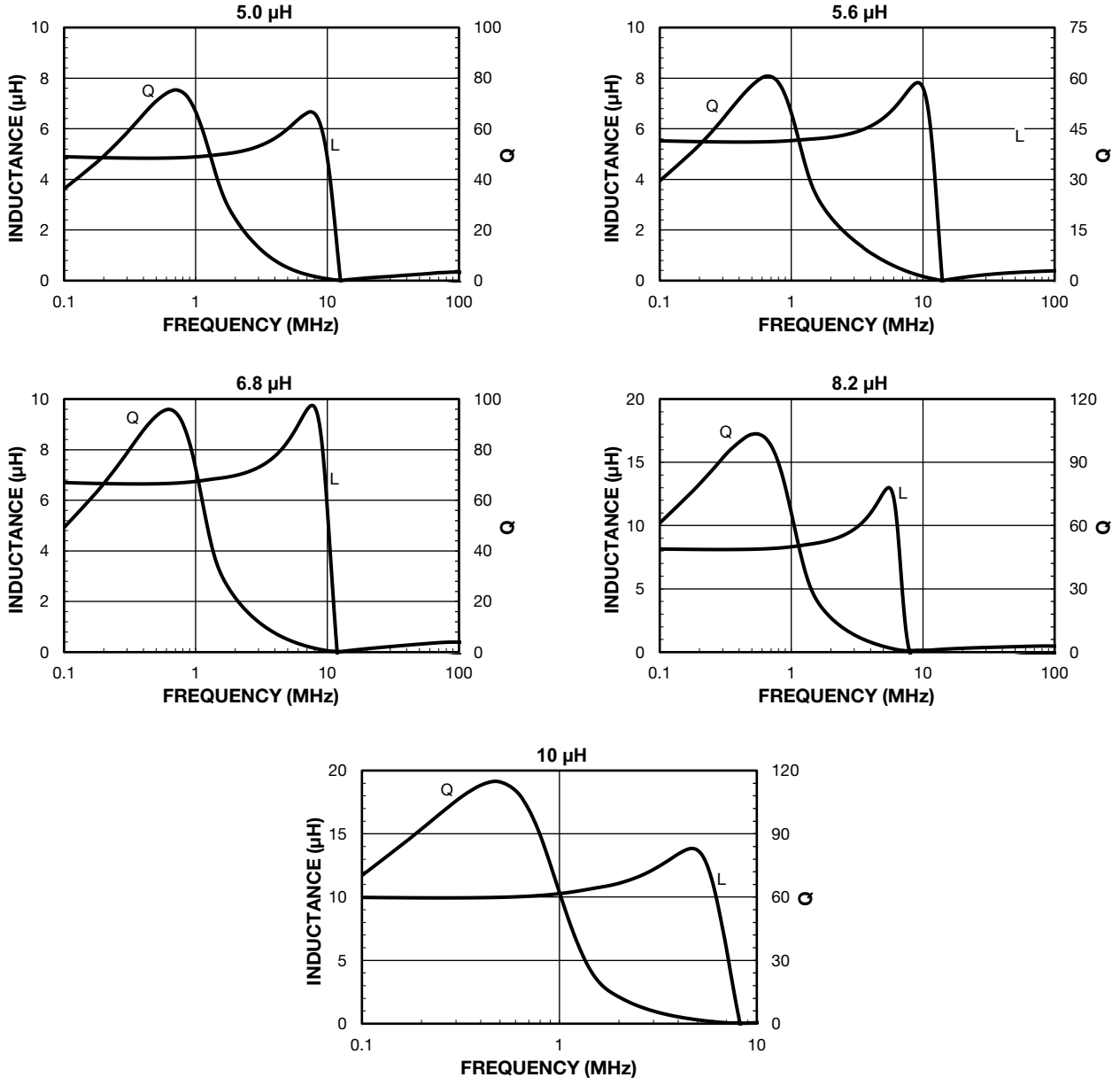

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