# Low Profile, High Current Inductors



## FEATURES

- Shielded construction
- Frequency range up to 5.0 MHz
- Handles high transient current spikes without saturation
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

## 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)

## STANDARD ELECTRICAL SPECIFICATIONS

| $L_0$ INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (µH) | DCR 25 °C (mΩ) | | HEAT RATING CURRENT DC $I_{DC}$ (A) (3) | | SATURATION CURRENT DC $I_{SAT}$ (A) (4) | |
|---|---|---|---|---|---|---|
| | TYP. | MAX. | TYP. | MAX. | TYP. | MAX. |
| 0.47 | 24 | 28.5 | 3.70 | 3.35 | 3.90 | 3.50 |
| 1.0 | 37 | 43.0 | 2.65 | 2.40 | 2.75 | 2.50 |
| 1.5 | 63 | 72.0 | 2.30 | 2.07 | 2.35 | 2.12 |
| 2.2 | 80 | 90.0 | 1.90 | 1.80 | 2.15 | 1.95 |
| 3.3 | 140 | 155 | 1.50 | 1.35 | 1.70 | 1.60 |
| 4.7 | 185 | 210 | 1.40 | 1.25 | 1.50 | 1.40 |
| 6.8 | 325 | 370 | 1.00 | 0.90 | 1.15 | 1.04 |
| 10 | 359 | 409 | 0.90 | 0.81 | 0.87 | 0.80 |
| 22 | 900 | 1050 | 0.52 | 0.46 | 0.56 | 0.50 |

**Notes**

(1) All test data is referenced to 25 °C ambient

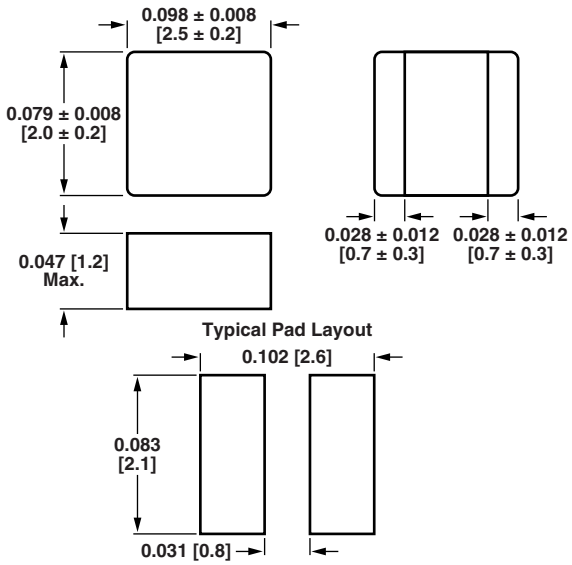
(2) Operating temperature range -55 °C to +125 °C

(3) DC current (A) that will cause an approximate ΔT of 40 °C

(4) DC current (A) that will cause $L_0$ to drop approximately 30 %

(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

## DIMENSIONS in inches [millimeters]




## DESCRIPTION

| IFSC-1008AB-01 | 4.7 µH | ± 20 % | ER | e3 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC® LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

| I | F | S | C | 1 | 0 | 0 | 8 | A | B | E | R | 4 | R | 7 | M | 0 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT FAMILY | | | | SIZE | | | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOL. | SERIES | |



For technical questions, contact: magnetics@vishay.com

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