# High Current, Surface Mount Inductors - Wirewound Molded



## STANDARD ELECTRICAL SPECIFICATIONS

| IND. AT 1 kHz (µH) | DCR MAX. (Ω) | RATED CURRENT MAX. (A) | INCREMENTAL CURRENT APPROX. (A) |
|---|---|---|---|
| 1.0 | 0.015 | 5.11 | 4.41 |
| 1.2 | 0.016 | 4.93 | 4.11 |
| 1.5 | 0.017 | 4.63 | 3.66 |
| 1.8 | 0.022 | 4.27 | 3.22 |
| 2.2 | 0.031 | 3.61 | 2.62 |
| 2.7 | 0.038 | 3.18 | 2.40 |
| 3.3 | 0.045 | 2.94 | 2.13 |
| 3.9 | 0.062 | 2.57 | 2.05 |
| 4.7 | 0.083 | 2.17 | 1.93 |
| 5.6 | 0.091 | 2.08 | 1.79 |
| 6.8 | 0.101 | 1.94 | 1.62 |
| 8.2 | 0.118 | 1.83 | 1.50 |
| 10.0 | 0.126 | 1.74 | 1.36 |
| 12.0 | 0.170 | 1.50 | 1.26 |
| 15.0 | 0.228 | 1.29 | 1.11 |
| 18.0 | 0.306 | 1.13 | 1.05 |
| 22.0 | 0.336 | 1.05 | 0.96 |
| 27.0 | 0.389 | 0.98 | 0.86 |
| 33.0 | 0.440 | 0.92 | 0.75 |
| 39.0 | 0.490 | 0.86 | 0.72 |
| 47.0 | 0.646 | 0.74 | 0.68 |
| 56.0 | 0.845 | 0.65 | 0.64 |
| 68.0 | 1.040 | 0.61 | 0.58 |
| 82.0 | 1.240 | 0.56 | 0.51 |
| 100.0 | 1.440 | 0.48 | 0.42 |
| 120.0 | 2.180 | 0.45 | 0.40 |
| 150.0 | 2.900 | 0.38 | 0.37 |
| 180.0 | 3.280 | 0.36 | 0.33 |
| 220.0 | 3.650 | 0.34 | 0.28 |
| 270.0 | 4.400 | 0.29 | 0.26 |
| 330.0 | 5.070 | 0.27 | 0.23 |
| 390.0 | 5.900 | 0.23 | 0.20 |
| 470.0 | 7.670 | 0.22 | 0.19 |
| 560.0 | 8.850 | 0.21 | 0.17 |
| 680.0 | 10.20 | 0.18 | 0.15 |
| 820.0 | 11.58 | 0.17 | 0.14 |
| 1000.0 | 12.97 | 0.16 | 0.13 |

## FEATURES

- Flame retardant encapsulant (UL 94 V-0)
- Completely encapsulated winding provides superior environmental protection and moisture resistance
- High current unit in surface mount package printed with model, inductance value and date code
- Compatible with infrared or conventional reflow soldering methods
- Pick and place compatible
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

## APPLICATIONS

Excellent power line noise filters, filters for switching regulated power supplies, DC/DC converters, SCR and triac controls and RFI suppression.

## ELECTRICAL SPECIFICATIONS

**Inductance:** Measured at 1 V with no DC current

**Inductance Tolerance:** ± 15 %

**Incremental Current:** The typical current at which the inductance will be decreased by 5 % from its initial zero DC value

**Operating Temperature:** -55 °C to +125 °C (no load); -55 °C to +85 °C (at full rated current)

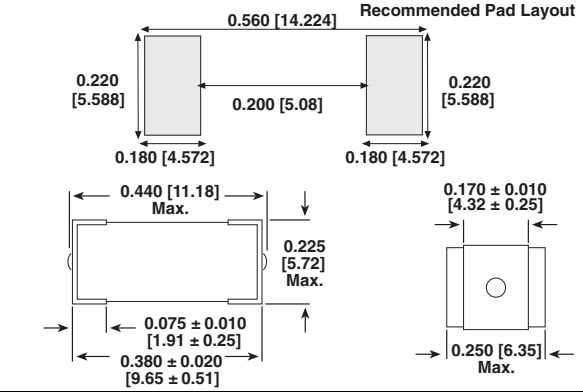
## MECHANICAL SPECIFICATIONS

**Core:** High resistivity ferrite core

**Encapsulant:** Epoxy

**Terminals:** 100 % Sn over Ni

## DIMENSIONS in inches [millimeters]




## PART MARKING

- Model
- Inductance value
- Date code

## DESCRIPTION

| IHSM-3825 | 3.9 µH | ± 15 % | ER | e3 |
|---|---|---|---|---|
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

| I | H | S | M | 3 | 8 | 2 | 5 | E | R | 3 | R | 9 | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PRODUCT FAMILY | | | | SIZE | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | TOL. |



For technical questions, contact: magnetics@vishay.com

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