# High Current, Surface Mount Inductors - Wirewound Molded



## 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
- Tape and reel packaging for automatic handling
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free 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

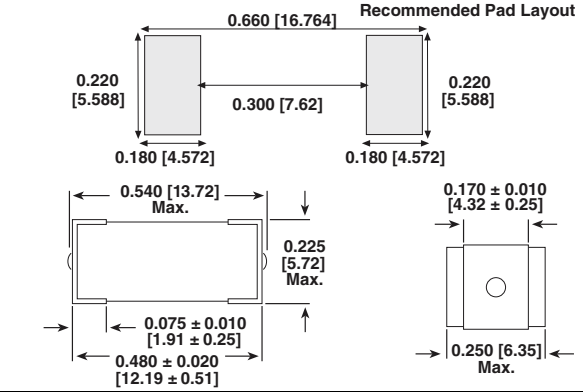
**Encapsulant:** Epoxy

**Terminals:** 100 % Sn over Ni

## STANDARD ELECTRICAL SPECIFICATIONS

| IND. AT 1 kHz (µH) | DCR MAX. (Ω) | RATED CURRENT MAX. (A) | INCREMENTAL CURRENT APPROX. (A) |
|---|---|---|---|
| 1.0 | 0.013 | 8.6 | 4.1 |
| 1.2 | 0.018 | 7.6 | 3.8 |
| 1.5 | 0.02 | 6.9 | 3.5 |
| 1.8 | 0.021 | 6.5 | 3.2 |
| 2.2 | 0.029 | 5.7 | 2.9 |
| 2.7 | 0.034 | 5.1 | 2.6 |
| 3.3 | 0.038 | 4.6 | 2.4 |
| 3.9 | 0.042 | 4.3 | 2.2 |
| 4.7 | 0.047 | 4.0 | 2.0 |
| 5.6 | 0.051 | 3.8 | 1.9 |
| 6.8 | 0.058 | 3.5 | 1.7 |
| 8.2 | 0.063 | 3.3 | 1.5 |
| 10.0 | 0.071 | 3.1 | 1.4 |
| 12.0 | 0.079 | 2.7 | 1.3 |
| 15.0 | 0.089 | 2.3 | 1.2 |
| 18.0 | 0.119 | 1.9 | 1.1 |
| 22.0 | 0.152 | 1.7 | 1.02 |
| 27.0 | 0.179 | 1.6 | 0.95 |
| 33.0 | 0.222 | 1.3 | 0.88 |
| 39.0 | 0.315 | 1.19 | 0.8 |
| 47.0 | 0.362 | 1.07 | 0.74 |
| 56.0 | 0.397 | 0.95 | 0.68 |
| 68.0 | 0.446 | 0.87 | 0.62 |
| 82.0 | 0.604 | 0.8 | 0.56 |
| 100.0 | 0.672 | 0.73 | 0.5 |
| 120.0 | 0.735 | 0.66 | 0.45 |
| 150.0 | 0.998 | 0.58 | 0.4 |
| 180.0 | 1.37 | 0.5 | 0.35 |
| 220.0 | 1.58 | 0.46 | 0.32 |
| 270.0 | 1.77 | 0.41 | 0.3 |
| 330.0 | 2.51 | 0.37 | 0.28 |
| 390.0 | 2.73 | 0.34 | 0.26 |
| 470.0 | 3.36 | 0.32 | 0.24 |
| 560.0 | 3.75 | 0.3 | 0.23 |
| 680.0 | 4.31 | 0.28 | 0.2 |
| 820.0 | 6.04 | 0.26 | 0.17 |
| 1000.0 | 6.9 | 0.24 | 0.15 |

## DIMENSIONS in inches [millimeters]




## PART MARKING

- Model
- Inductance value
- Date code

## DESCRIPTION

| IHSM-4825 | 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 | 4 | 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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