

# High Current, Surface Mount Inductors - Wirewound Molded



## STANDARD ELECTRICAL SPECIFICATIONS

| IND.<br>AT 1 kHz<br>(μH) | DCR<br>MAX.<br>(Ω) | RATED<br>CURRENT MAX.<br>(A) | INCREMENTAL<br>CURRENT APPROX.<br>(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                                  |

## 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](http://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)

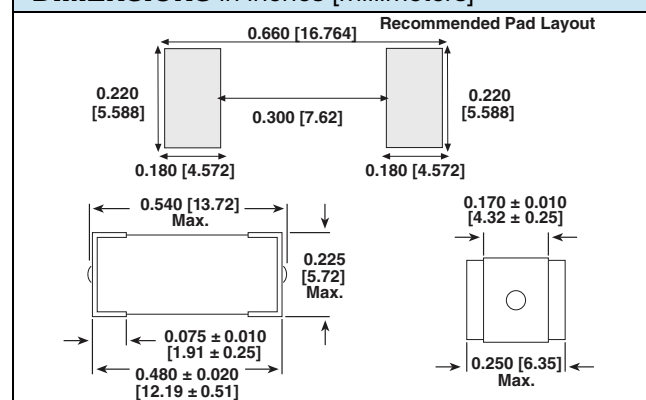
## MECHANICAL SPECIFICATIONS

**Core:** High resistivity ferrite core

**Encapsulant:** Epoxy

**Terminals:** 100 % Sn over Ni

## DIMENSIONS in inches [millimeters]



## PART MARKING

- Model
- Inductance value
- Date code

## DESCRIPTION

|                  |                  |                      |              |                               |
|------------------|------------------|----------------------|--------------|-------------------------------|
| <b>IHSM-4825</b> | <b>3.9 μH</b>    | <b>± 15 %</b>        | <b>ER</b>    | <b>e3</b>                     |
| MODEL            | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

## GLOBAL PART NUMBER

|                |          |          |          |          |          |          |          |              |          |                  |          |          |          |
|----------------|----------|----------|----------|----------|----------|----------|----------|--------------|----------|------------------|----------|----------|----------|
| <b>I</b>       | <b>H</b> | <b>S</b> | <b>M</b> | <b>4</b> | <b>8</b> | <b>2</b> | <b>5</b> | <b>E</b>     | <b>R</b> | <b>3</b>         | <b>R</b> | <b>9</b> | <b>L</b> |
| PRODUCT FAMILY |          |          |          | SIZE     |          |          |          | PACKAGE CODE |          | INDUCTANCE VALUE |          |          | TOL.     |



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