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Vishay Dale

## **High Current, Surface Mount Inductors - Wirewound Molded**





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



#### RoHS

- High current unit in surface mount package compliant 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 <a href="https://www.vishav.com/doc?99912">www.vishav.com/doc?99912</a>

#### **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.

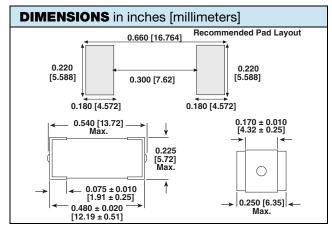
**Operating Temperature:** -55 °C to +125 °C (no load); -55 °C to +85 °C (at full rated current)

#### **MECHANICAL SPECIFICATIONS**

Core: High resistivity ferrite core

**Encapsulant:** Epoxy

Terminals: 100 % Sn over Ni



**VALUE** 

## PART MARKING

- Model
- Inductance value

CODE

- Date code

| DESCRIPTION        |                            |                                |                           |  |  |  |  |
|--------------------|----------------------------|--------------------------------|---------------------------|--|--|--|--|
| IHSM-4825<br>MODEL | 3.9 μH<br>INDUCTANCE VALUE | ± 15 %<br>INDUCTANCE TOLERANCE | <b>ER</b><br>PACKAGE CODE | <b>e3</b><br>JEDEC LEAD (Pb)-FREE STANDARD |  |  |  |
| GLOBAL PART NUMBER |                            |                                |                           |  |  |  |  |
|                    | H S M                      | 4 8 2 5                        | E R                       | 3 R 9 L                                    |  |  |  |
| PRODUCT FAMILY     |                            | SIZE                           | PACKAGE                   | INDUCTANCE TO                              |  |  |  |

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