

# IHSM4825EB100L Datasheet



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|                              |  |
|------------------------------|--|
| DiGi Electronics Part Number | IHSM4825EB100L-DG  |
| Manufacturer                 | <a href="#">Vishay Dale</a>                                  |
| Manufacturer Product Number  | IHSM4825EB100L   |
| Description                  | FIXED IND 10UH 3.1A 71 MOHM SMD                              |
| Detailed Description         | 10 $\mu$ H Unshielded Inductor 3.1 A 71mOhm Max Non standard |

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## Purchase and inquiry

Manufacturer Product Number:

IHSM4825EB100L

Series:

IHSM-4825

Type:

-

Inductance:

10  $\mu$ H

Current Rating (Amps):

3.1 A

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

1 kHz

Package / Case:

Nonstandard

Size / Dimension:

0.540" L x 0.250" W (13.72mm x 6.35mm)

Manufacturer:

Vishay Dale

Product Status:

Active

Material - Core:

Ferrite

Tolerance:

$\pm$ 15%

Current - Saturation (Isat):

1.4A

DC Resistance (DCR):

71mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-55°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.225" (5.72mm)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



www.vishay.com

**IHSM-4825**

Vishay Dale

## High Current, Surface Mount Inductors - Wirewound Molded

**RoHS**

COMPLIANT

### 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)

### 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:**  $\pm 15\%$

**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

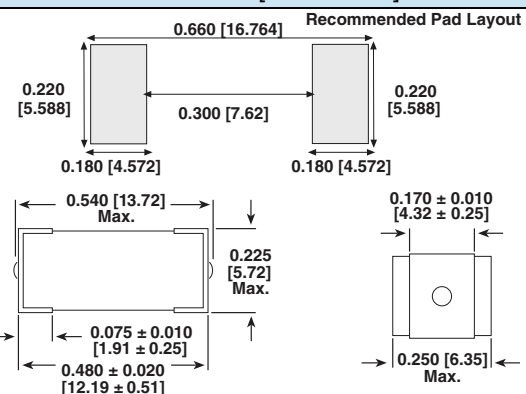
**Core:** High resistivity ferrite core

**Encapsulant:** Epoxy

**Terminals:** 100 % Sn over Ni

| STANDARD ELECTRICAL SPECIFICATIONS |                       |                        |                                 |
|------------------------------------|-----------------------|------------------------|---------------------------------|
| IND. AT 1 kHz ( $\mu$ H)           | DCR MAX. ( $\Omega$ ) | 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 $\mu$ H      | $\pm 15\%$           | 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. |



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