

## High Current, Surface Mount Inductor



### FEATURES

- Flame retardant encapsulant (UL 94V-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



### 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 volt 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)

### MATERIAL SPECIFICATIONS

**Core:** High resistivity ferrite core

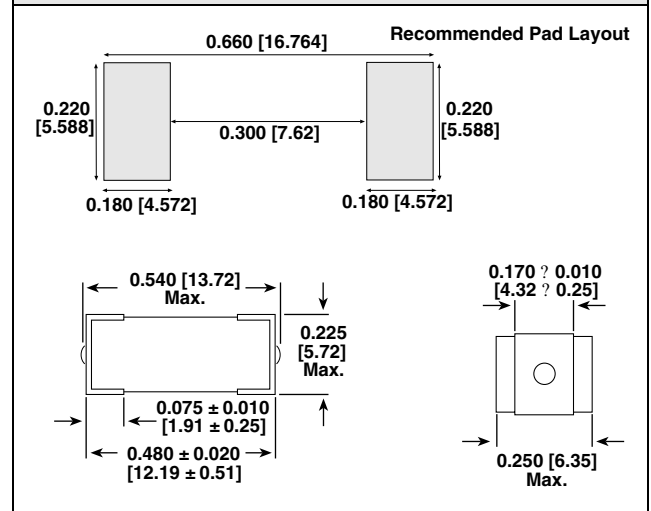
**Encapsulant:** Epoxy

**Terminals:** 100 % Sn over Ni

### STANDARD ELECTRICAL SPECIFICATIONS

| IND. at 1 kHz ( $\mu\text{H}$ ) | DCR MAX. (Ohms) | RATED CURRENT (Max. Amps) | INCREMENTAL CURRENT (Amps Approx.) |
|---------------------------------|-----------------|---------------------------|------------------------------------|
| 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]



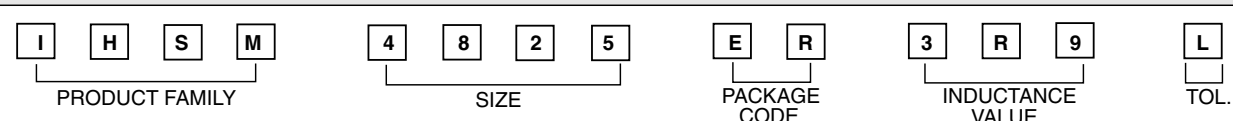
### PART MARKING

- Model
- Inductance value
- Date code

### DESCRIPTION

|           |                   |                      |              |                               |
|-----------|-------------------|----------------------|--------------|-------------------------------|
| IHSM-4825 | 3.9 $\mu\text{H}$ | $\pm 15\%$           | ER           | e3                            |
| MODEL     | INDUCTANCE VALUE  | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

### SAP PART NUMBERING GUIDELINES (INTERNAL)





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