

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

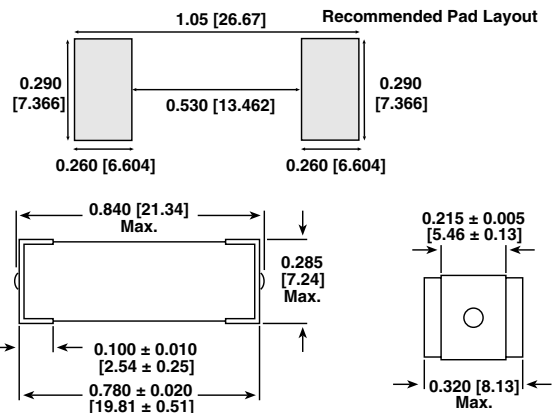
Encapsulant: Epoxy

Terminals: 100 % Sn over Ni

STANDARD ELECTRICAL SPECIFICATIONS

| IND. at 1 kHz (μH) | DCR MAX. (Ohms) | RATED CURRENT (Max. Amps) | INCREMENTAL CURRENT (Amps Approx.) |
|---------------------------------|-----------------|---------------------------|------------------------------------|
| 1.0 | 0.011 | 9.0 | 5.3 |
| 1.2 | 0.012 | 8.8 | 4.8 |
| 1.5 | 0.012 | 8.6 | 4.4 |
| 1.8 | 0.013 | 8.5 | 4.0 |
| 2.2 | 0.014 | 8.4 | 3.6 |
| 2.7 | 0.016 | 8.2 | 3.2 |
| 3.3 | 0.017 | 8.1 | 2.8 |
| 3.9 | 0.02 | 7.3 | 2.6 |
| 4.7 | 0.023 | 6.7 | 2.4 |
| 5.6 | 0.025 | 6.0 | 2.3 |
| 6.8 | 0.028 | 5.6 | 2.1 |
| 8.2 | 0.032 | 5.3 | 1.9 |
| 10.0 | 0.036 | 5.0 | 1.7 |
| 12.0 | 0.04 | 4.8 | 1.5 |
| 15.0 | 0.043 | 4.5 | 1.4 |
| 18.0 | 0.047 | 4.2 | 1.3 |
| 22.0 | 0.054 | 3.8 | 1.2 |
| 27.0 | 0.074 | 3.4 | 1.1 |
| 33.0 | 0.084 | 3.0 | 0.99 |
| 39.0 | 0.095 | 2.8 | 0.93 |
| 47.0 | 0.12 | 2.6 | 0.87 |
| 56.0 | 0.14 | 2.4 | 0.82 |
| 68.0 | 0.16 | 2.1 | 0.76 |
| 82.0 | 0.184 | 1.9 | 0.72 |
| 100.0 | 0.226 | 1.7 | 0.68 |
| 120.0 | 0.305 | 1.5 | 0.61 |
| 150.0 | 0.362 | 1.4 | 0.54 |
| 180.0 | 0.399 | 1.3 | 0.48 |
| 220.0 | 0.536 | 1.1 | 0.44 |
| 270.0 | 0.599 | 0.95 | 0.4 |
| 330.0 | 0.714 | 0.86 | 0.36 |
| 390.0 | 0.819 | 0.8 | 0.33 |
| 470.0 | 1.1 | 0.74 | 0.31 |
| 560.0 | 1.2 | 0.68 | 0.29 |
| 680.0 | 1.58 | 0.63 | 0.26 |
| 820.0 | 2.08 | 0.573 | 0.23 |
| 1000.0 | 2.42 | 0.51 | 0.21 |
| 1200.0 | 2.68 | 0.46 | 0.19 |
| 1500.0 | 3.15 | 0.4 | 0.17 |
| 1800.0 | 4.2 | 0.34 | 0.15 |
| 2200.0 | 4.62 | 0.31 | 0.135 |
| 2700.0 | 6.3 | 0.29 | 0.12 |
| 3300.0 | 7.09 | 0.27 | 0.11 |
| 3900.0 | 9.14 | 0.25 | 0.1 |
| 4700.0 | 10.6 | 0.23 | 0.09 |
| 5600.0 | 11.8 | 0.21 | 0.08 |
| 6800.0 | 15.8 | 0.19 | 0.0775 |
| 8200.0 | 21.8 | 0.17 | 0.0725 |
| 10 000.0 | 24.6 | 0.16 | 0.07 |
| 12 000.0 | 28.4 | 0.14 | 0.0625 |
| 15 000.0 | 37.8 | 0.12 | 0.055 |
| 18 000.0 | 44.1 | 0.11 | 0.05 |

DIMENSIONS in inches [millimeters]



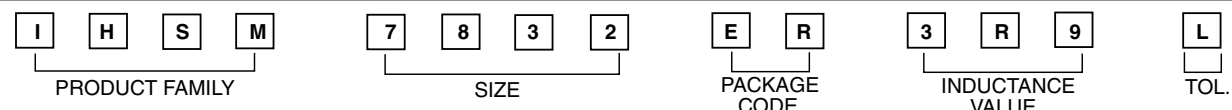
PART MARKING

- Model - Inductance value - Date code

DESCRIPTION

| | | | | |
|-----------|-------------------|----------------------|--------------|-------------------------------|
| IHSM-7832 | 3.9 μH | $\pm 15\%$ | ER | e3 |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

SAP PART NUMBERING GUIDELINES (INTERNAL)





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