

## 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

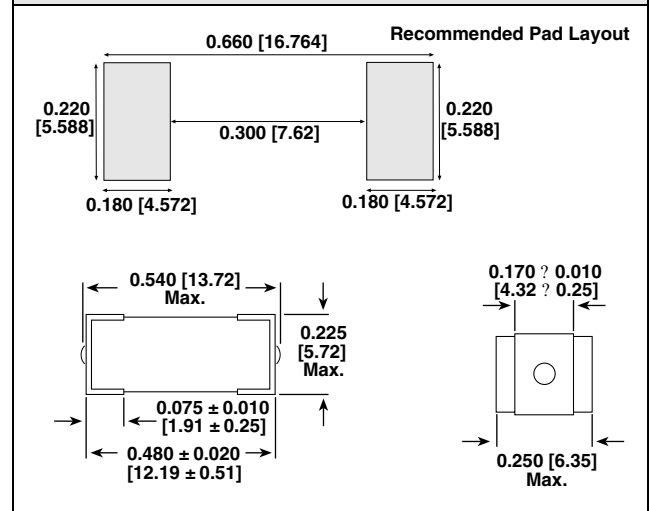
**Encapsulant:** Epoxy

**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]



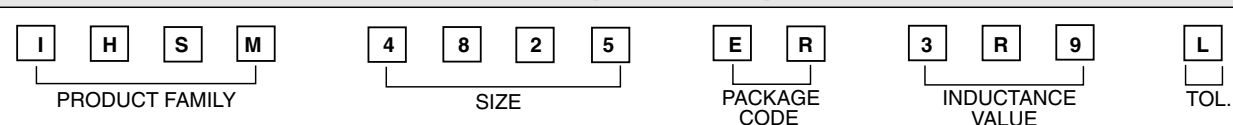
### PART MARKING

- 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)





## Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.