

# High Current, Encapsulated Surface-Mount Ferrite Inductors



## STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	L <sub>0</sub> IND. ± 15 % AT 0 A (μH)	DCR MAX. (Ω)	HEAT RATING CURRENT DC MAX. (A)	SATURATION CURRENT DC (A) <sup>(1)</sup>
IHSM7832ER1R0L	1.0	0.011	9.0	5.3
IHSM7832ER1R2L	1.2	0.012	8.8	4.8
IHSM7832ER1R5L	1.5	0.012	8.6	4.4
IHSM7832ER1R8L	1.8	0.013	8.5	4.0
IHSM7832ER2R2L	2.2	0.014	8.4	3.6
IHSM7832ER2R7L	2.7	0.016	8.2	3.2
IHSM7832ER3R3L	3.3	0.017	8.1	2.8
IHSM7832ER3R9L	3.9	0.02	7.3	2.6
IHSM7832ER4R7L	4.7	0.023	6.7	2.4
IHSM7832ER5R6L	5.6	0.025	6.0	2.3
IHSM7832ER6R8L	6.8	0.028	5.6	2.1
IHSM7832ER8R2L	8.2	0.032	5.3	1.9
IHSM7832ER100L	10	0.036	5.0	1.7
IHSM7832ER120L	12	0.04	4.8	1.5
IHSM7832ER150L	15	0.043	4.5	1.4
IHSM7832ER180L	18	0.047	4.2	1.3
IHSM7832ER220L	22	0.054	3.8	1.2
IHSM7832ER270L	27	0.074	3.4	1.1
IHSM7832ER330L	33	0.084	3.0	1.0
IHSM7832ER390L	39	0.095	2.8	0.9
IHSM7832ER470L	47	0.12	2.6	0.9
IHSM7832ER560L	56	0.14	2.4	0.82
IHSM7832ER680L	68	0.16	2.1	0.76
IHSM7832ER820L	82	0.184	1.9	0.72
IHSM7832ER101L	100	0.226	1.7	0.68
IHSM7832ER121L	120	0.305	1.5	0.61
IHSM7832ER151L	150	0.362	1.4	0.54
IHSM7832ER181L	180	0.399	1.3	0.48
IHSM7832ER221L	220	0.536	1.1	0.44
IHSM7832ER271L	270	0.599	0.95	0.4
IHSM7832ER331L	330	0.714	0.86	0.36
IHSM7832ER391L	390	0.819	0.8	0.33
IHSM7832ER471L	470	1.1	0.74	0.31
IHSM7832ER561L	560	1.2	0.68	0.29
IHSM7832ER681L	680	1.58	0.63	0.26
IHSM7832ER821L	820	2.08	0.573	0.23
IHSM7832ER102L	1000	2.42	0.51	0.21
IHSM7832ER122L	1200	2.68	0.46	0.19
IHSM7832ER152L	1500	3.15	0.4	0.17
IHSM7832ER182L	1800	4.2	0.34	0.15
IHSM7832ER222L	2200	4.62	0.31	0.135
IHSM7832ER272L	2700	6.3	0.29	0.12
IHSM7832ER332L	3300	7.09	0.27	0.11
IHSM7832ER392L	3900	9.14	0.25	0.1
IHSM7832ER472L	4700	10.6	0.23	0.09
IHSM7832ER562L	5600	11.8	0.21	0.08
IHSM7832ER682L	6800	15.8	0.19	0.0775
IHSM7832ER822L	8200	21.8	0.17	0.0725
IHSM7832ER103L	10 000	24.6	0.16	0.07
IHSM7832ER123L	12 000	28.4	0.14	0.0625
IHSM7832ER153L	15 000	37.8	0.12	0.055
IHSM7832ER183L	18 000	44.1	0.11	0.05

### Notes

- All test data is referenced to 25 °C ambient
- Test condition: 1 kHz, 1 V
- Operating temperature range -55 °C to +125 °C
- <sup>(1)</sup> DC current (A) that will cause L<sub>0</sub> to drop approximately 5 %

## FEATURES

- Wirewound ferrite core with flame retardant epoxy encapsulant (UL 94 V-0)
- Superior environmental protection and moisture resistance
- Tin-lead (SnPb) terminations available (see package code options)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS COMPLIANT**

## APPLICATIONS

Power line noise filters, filters for switching regulated power supplies, DC/DC converters, SCR, and triac controls and RFI suppression.

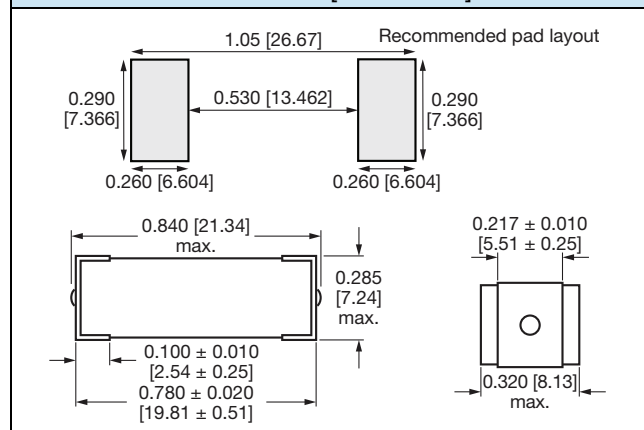
## MECHANICAL SPECIFICATIONS

**Core:** high resistivity ferrite core

**Encapsulant:** epoxy

**Terminals:** 100 % Sn over Ni

## DIMENSIONS in inches [millimeters]



## PART MARKING

- Model
- Inductance value
- Date code

## PACKAGE CODE OPTIONS

- ER** = pure tin terminal plating (RoHS-compliant) with tape and reel packaging
- EB** = pure tin terminal plating (RoHS-compliant) with bulk packaging
- RG** = tin-lead terminal plating (non-RoHS) with tape and reel packaging
- PJ** = tin-lead terminal plating (non-RoHS) with bulk packaging



DESCRIPTION				
IHSM-7832	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	
PRODUCT FAMILY				
7	8	3	2	
SIZE				
E	R			
PACKAGE CODE				
3	R	9		
INDUCTANCE VALUE				
			L	
			TOL.	



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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 in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

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