Wirewound, Surface-Mount, Molded Inductors

FEATURES

- Molded construction provides superior strength and moisture resistance
- Tape and reel packaging for automatic handling, 500/reel, EIA-481
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS

Inductance range: 1 µH to 680 µH

Inductance tolerance: ± 10 %

Operating temperature: -40 °C to +125 °C

Storage temperature: -40 °C to +125 °C

TEST EQUIPMENT

- L and Q: HP 4194A
- SRF: HP 4291A
- DCR: CH-502AC

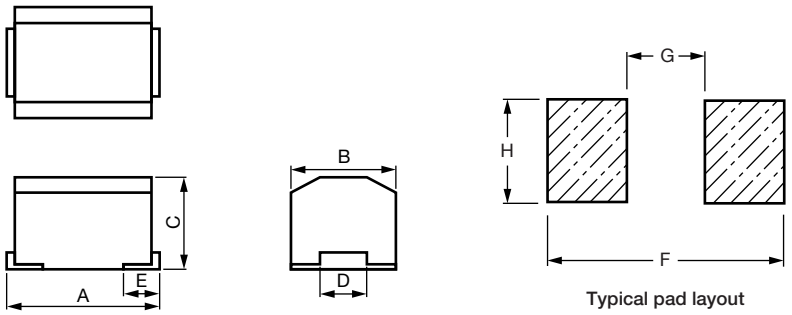
STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	IND. (µH)	TOL. (%)	TEST FREQ. (MHz) L AND Q	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA) [1]
IMCH1812ER1R0K	1.0	± 10	7.96	10	180	0.11	1050
IMCH1812ER1R2K	1.2	± 10	7.96	10	160	0.12	1000
IMCH1812ER1R5K	1.5	± 10	7.96	10	130	0.15	950
IMCH1812ER1R8K	1.8	± 10	7.96	10	100	0.16	900
IMCH1812ER2R2K	2.2	± 10	7.96	10	80.0	0.18	850
IMCH1812ER2R7K	2.7	± 10	7.96	10	60.0	0.20	800
IMCH1812ER3R3K	3.3	± 10	7.96	10	45.0	0.22	750
IMCH1812ER3R9K	3.9	± 10	7.90	10	40.0	0.24	700
IMCH1812ER4R7K	4.7	± 10	7.96	10	35.0	0.27	650
IMCH1812ER5R6K	5.6	± 10	7.96	10	30.0	0.3	650
IMCH1812ER6R8K	6.8	± 10	7.96	10	28.0	0.35	600
IMCH1812ER8R2K	8.2	± 10	7.96	10	25.0	0.4	600
IMCH1812ER100K	10	± 10	2.52	10	22.0	0.5	550
IMCH1812ER120K	12	± 10	2.52	10	21.0	0.6	500
IMCH1812ER150K	15	± 10	2.52	10	20.0	0.7	450
IMCH1812ER180K	18	± 10	2.52	10	19.0	0.8	400
IMCH1812ER220K	22	± 10	2.52	10	18.0	0.9	370
IMCH1812ER270K	27	± 10	2.52	10	16.0	1.2	330
IMCH1812ER330K	33	± 10	2.52	10	14.0	1.4	300
IMCH1812ER390K	39	± 10	2.52	10	12.0	1.6	280
IMCH1812ER470K	47	± 10	2.52	10	11.5	1.9	260
IMCH1812ER560K	56	± 10	2.52	10	11.0	2.2	240
IMCH1812ER680K	68	± 10	2.52	10	10.0	2.6	220
IMCH1812ER820K	82	± 10	2.52	10	9.0	3.5	200
IMCH1812ER101K	100	± 10	0.796	20	8.0	4.0	180
IMCH1812ER121K	120	± 10	0.796	20	7.5	4.5	160
IMCH1812ER151K	150	± 10	0.796	20	7.0	6.5	140
IMCH1812ER181K	180	± 10	0.796	20	6.5	7.5	120
IMCH1812ER221K	220	± 10	0.796	20	5.5	9	120
IMCH1812ER271K	270	± 10	0.796	20	5.0	11	100
IMCH1812ER331K	330	± 10	0.796	20	4.0	13	90
IMCH1812ER391K	390	± 10	0.796	20	3.0	14	85
IMCH1812ER471K	470	± 10	0.796	20	3.0	16	75
IMCH1812ER561K	560	± 10	0.796	20	3.0	21	70
IMCH1812ER681K	680	± 10	0.796	20	2.5	24.2	65

Note

[1] Rated current will cause the inductance drop within 10 %

DIMENSIONS in inches [millimeters]



Typical pad layout

A	B	C	D	E	F	G	H
0.177 ± 0.012 [4.5 ± 0.3]	0.126 ± 0.008 [3.2 ± 0.2]	0.126 ± 0.008 [3.2 ± 0.2]	0.047 ± 0.008 [1.2 ± 0.2]	0.039 ± 0.008 [1.0 ± 0.2]	0.205 [5.2]	0.087 [2.2]	0.063 [1.6]

PART MARKING

- Inductance value

DESCRIPTION

IMCH-1812	**22 µH**	**± 10 %**	**ER**	**e3**
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I M C H	1 8 1 2	E R	2 2 0	K
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE
		ER = tape and reel	**220** = 22 µH	**K** = ± 10 %

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.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. 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.