

# High Frequency, Surface-Mount Molded Inductors



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

## STANDARD ELECTRICAL SPECIFICATIONS

IND. ( $\mu$ H)	TOL.	TEST FREQ. (MHz)	Q MIN.	SRF MIN. (MHz)	DCR MAX. ( $\Omega$ )	RATED DC CURRENT (mA) <sup>(1)</sup>
		L & Q				
1.0	10 %	7.96	10	95	0.030	1800
1.2	10 %	7.96	10	70	0.035	1700
1.5	10 %	7.96	10	55	0.040	1600
1.8	10 %	7.96	10	47	0.050	1400
2.2	10 %	7.96	10	42	0.060	1300
2.7	10 %	7.96	10	37	0.070	1200
3.3	10 %	7.96	10	34	0.080	1120
3.9	10 %	7.96	10	32	0.090	1050
4.7	10 %	7.96	10	29	0.110	950
5.6	10 %	7.96	10	26	0.130	880
6.8	10 %	7.96	10	24	0.150	810
8.2	10 %	7.96	10	22	0.180	750
10	10 %	2.52	10	19	0.210	690
12	10 %	2.52	10	17	0.250	630
15	10 %	2.52	10	16	0.300	580
18	10 %	2.52	10	14	0.360	530
22	10 %	2.52	10	13	0.430	480
27	10 %	2.52	10	11.5	0.520	440
33	10 %	2.52	10	10.5	0.620	400
39	10 %	2.52	10	9.5	0.720	370
47	10 %	2.52	10	8.5	0.850	340
56	10 %	2.52	10	7.8	1.00	310
68	10 %	2.52	10	7	1.20	290
82	10 %	2.52	10	6.4	1.40	270
100	10 %	0.796	20	6	1.60	250
120	10 %	0.796	20	5.4	1.90	230
150	10 %	0.796	20	4.8	2.20	210
180	10 %	0.796	20	4.4	2.80	190
220	10 %	0.796	20	3.9	3.40	170
270	10 %	0.796	20	3.6	4.20	155
330	10 %	0.796	20	3.2	4.90	140
390	10 %	0.796	20	2.9	5.80	130
470	10 %	0.796	20	2.6	7.00	120
560	10 %	0.796	20	2.4	8.50	110
680	10 %	0.796	20	2.2	10.0	100
820	10 %	0.796	20	2	13.0	90
1000	10 %	0.252	20	1.8	15.0	85
1200	5 %	0.252	20	1.5	17.0	75
1500	5 %	0.252	20	1.4	20.0	70
1800	5 %	0.252	20	1.3	30.0	60
2200	5 %	0.252	20	1.2	35.0	55
2700	5 %	0.252	20	1.1	55.0	45
3300	5 %	0.252	20	1	60.0	40
3900	5 %	0.252	20	1	70.0	38
4700	5 %	0.252	20	0.9	78.0	36
5600	5 %	0.252	20	0.8	85.0	33
6800	5 %	0.252	20	0.7	110.0	30
8200	5 %	0.252	20	0.6	125.0	28
10 000	5 %	0.0796	15	0.5	150.0	25

### Note

(1) Rated DC current based on the maximum temperature rise, not to exceed 40 °C at +85 °C ambient

## FEATURES

- Molded construction provides superior strength and moisture resistance
- Compatible with vapor phase infrared and wave soldering methods (100 % tin plating)
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0  $\mu$ H to 10 000  $\mu$ H

**Inductance and Tolerance:**  $\pm 10$  %,  $\pm 5$  %

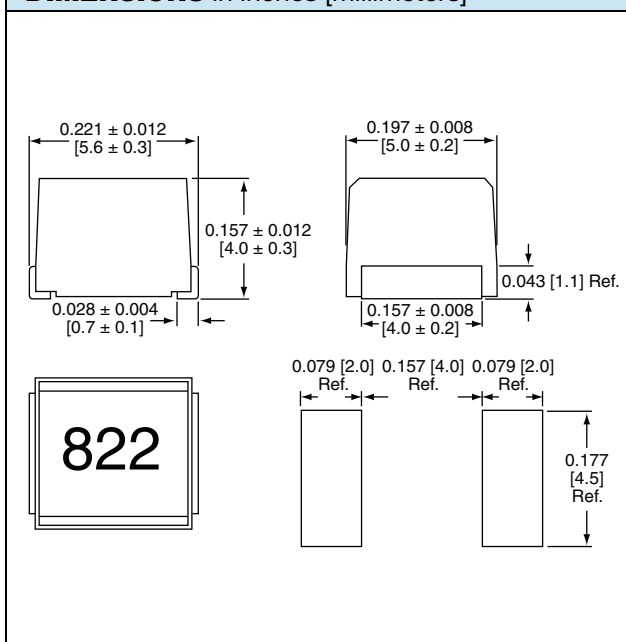
**Operating Temperature:** -40 °C to +125 °C

**Storage Temperature:** -40 °C to +125 °C

## TEST EQUIPMENT

- Inductance and Q measured on HP4191
- SRF measured on HP3755
- DCR measured on HP34401

## DIMENSIONS in inches [millimeters]



## DESCRIPTION

IMC-2220	22 $\mu$ H	$\pm 10$ %	ER	E3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

## GLOBAL PART NUMBER

I	M	C	2	2	2	0	E	R	2	2	0	K
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			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.