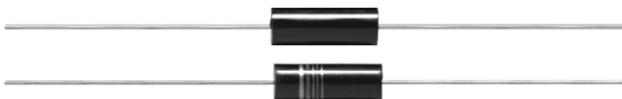


## Inductors, Commercial, Molded, Axial Leaded



### ELECTRICAL SPECIFICATIONS

**Inductance Tolerance:**  $\pm 10\%$  on Q-meter for 1  $\mu\text{H}$  to 22  $\mu\text{H}$   $\pm 5\%$  1000 cps bridge for 27  $\mu\text{H}$  to 10 000  $\mu\text{H}$

**Note**

- L and Q are not always tested at the same frequency. Inductance values tested on Q-meter, are tested at standard test frequencies

**Dielectric Strength:** 700 V<sub>RMS</sub> at sea level

**Operating Temperature:** -55 °C to +125 °C

**Self-Resonant Frequency:** Minimum SRF measured with full length leads on grid-dip meter

**Q:** Measured on a Q-meter

**Rating:** 1/2 W dissipation for L models

### MECHANICAL SPECIFICATIONS

**Terminal Strength:** Meets 5 lb pull test when tested per MIL-PRF-15305 (latest revision)

### FEATURES

- Miniature shielded inductor
- High inductance-to-size ratio
- Inductance range is 0.10  $\mu\text{H}$  to 180 000  $\mu\text{H}$
- Encapsulated non-flammable shielded unit
- 0.164" [4.17 mm] diameter by 0.450" [11.43 mm] long envelope
- Offers extremely high inductance for density packaging
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT

### DENSITY SPECIFICATIONS

**Weight:** 4.1 g maximum

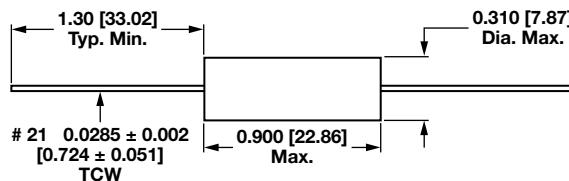
### ENVIRONMENTAL SPECIFICATIONS

**Moisture Resistance:** Meets requirements of MIL-PRF-15305

**Shock Resistance:** Meets requirements of MIL-PRF-15305

**Vibration:** High frequency, 10 Hz to 2000 Hz at 20 G  $\pm 10\%$  maximum for 12 logarithmic swings, each of 20 min duration repeated for each of three mutually perpendicular planes

### DIMENSIONS in inches [millimeters]



### STANDARD ELECTRICAL SPECIFICATIONS

MODEL <sup>(1)</sup>	IND. ( $\mu\text{H}$ )	TOL. (%)	Q MIN.	TEST FREQUENCY Q (MHz)	SRF MIN. (MHz)	DCR MAX. ( $\Omega$ )	RATED DC CURRENT (mA)	IRON CORE
IM-10RFCL-12	1.0	$\pm 10$	130	15	136	0.03	4000	
IM-10RFCL-12	1.2	$\pm 10$	130	15	124	0.03	4000	
IM-10RFCL-12	1.5	$\pm 10$	130	10	112	0.03	4000	
IM-10RFCL-12	1.8	$\pm 10$	130	10	100	0.03	4000	
IM-10RFCL-12	2.2	$\pm 10$	130	10	92	0.04	3500	
IM-10RFCL-12	2.7	$\pm 10$	100	10	82	0.04	3500	
IM-10RFCL-12	3.3	$\pm 10$	100	7.9	72	0.04	3500	
IM-10RFCL-12	3.9	$\pm 10$	80	7.9	68	0.05	3100	
IM-10RFCL-12	4.7	$\pm 10$	75	7.9	64	0.05	3100	
IM-10RFCL-12	5.6	$\pm 10$	65	7.9	58	0.06	3000	
IM-10RFCL-12	6.8	$\pm 10$	65	7.9	52	0.06	3000	
IM-10RFCL-12	8.2	$\pm 10$	65	7.9	46	0.11	2400	
IM-10RFCL-12	10	$\pm 10$	75	5.0	40	0.15	1800	
IM-10RFCL-12	12	$\pm 10$	75	5.0	36	0.23	1600	
IM-10RFCL-12	15	$\pm 10$	75	5.0	32	0.3	1300	
IM-10RFCL-12	18	$\pm 10$	75	5.0	29	0.4	1150	
IM-10RFCL-12	22	$\pm 10$	75	2.5	26	0.5	1000	

**Note**

<sup>(1)</sup> Model electricals and tolerances shown



## STANDARD ELECTRICAL SPECIFICATIONS

MODEL <sup>(1)</sup>	IND. ( $\mu$ H)	TOL. (%)	Q MIN.	TEST FREQUENCY Q (MHz)	SRF MIN. (MHz)	DCR MAX. ( $\Omega$ )	RATED DC CURRENT (mA)	
IM-10RFCL-12	27	$\pm 5$	70	2.5	24	0.6	900	
IM-10RFCL-12	33	$\pm 5$	70	2.5	22	0.7	850	
IM-10RFCL-12	39	$\pm 5$	70	2.5	21	1.1	720	
IM-10RFCL-12	47	$\pm 5$	75	2.5	20	1.3	620	
IM-10RFCL-12	56	$\pm 5$	80	2.5	18	1.8	540	
IM-10RFCL-12	68	$\pm 5$	100	2.5	16	2.4	450	
IM-10RFCL-12	82	$\pm 5$	100	2.5	14	2.8	425	
IM-10RFCL-12	100	$\pm 5$	100	1.5	13	3.2	400	
IM-10RFCL-12	120	$\pm 5$	100	1.5	12	4.8	360	
IM-10RFCL-12	150	$\pm 5$	100	1.0	11	6.4	280	
IM-10RFCL-12	180	$\pm 5$	95	1.0	10	9.5	240	
IM-10RFCL-12	220	$\pm 5$	95	1.0	9	12	200	
IM-10RFCL-12	270	$\pm 5$	70	1.0	7	13	195	
IM-10RFCL-12	330	$\pm 5$	65	0.79	6	14	190	
IM-10RFCL-12	390	$\pm 5$	65	0.79	5	15.5	180	
IM-10RFCL-12	470	$\pm 5$	60	0.79	4	17	170	
IM-10RFCL-12	560	$\pm 5$	75	0.50	3	18.5	165	
IM-10RFCL-12	680	$\pm 5$	75	0.50	2.50	20	155	
IM-10RFCL-12	820	$\pm 5$	75	0.50	2.00	22	150	
IM-10RFCL-12	1000	$\pm 5$	75	0.50	1.90	24	145	
IM-10RFCL-12	1200	$\pm 5$	75	0.50	1.70	27	137	
IM-10RFCL-12	1500	$\pm 5$	75	0.40	1.50	29	130	
IM-10RFCL-12	1800	$\pm 5$	65	0.40	1.40	32	125	
IM-10RFCL-12	2200	$\pm 5$	65	0.25	1.20	35	120	
IM-10RFCL-12	2700	$\pm 5$	65	0.25	1.00	40	112	
IM-10RFCL-12	3300	$\pm 5$	65	0.25	0.95	45	105	
IM-10RFCL-12	3900	$\pm 5$	65	0.25	0.80	49	100	
IM-10RFCL-12	4700	$\pm 5$	65	0.25	0.75	53	95	
IM-10RFCL-12	5600	$\pm 5$	65	0.25	0.70	60	90	
IM-10RFCL-12	6800	$\pm 5$	65	0.25	0.60	67	85	
IM-10RFCL-12	8200	$\pm 5$	65	0.25	0.50	75	82	
IM-10RFCL-12	10 000	$\pm 5$	65	0.15	0.45	80	80	

## Note

(1) Model electricals and tolerances shown

## MARKING

- Color coded

## ORDERING INFORMATION

IM-10RFCL-12 MODEL	1.0 $\mu$ H INDUCTANCE VALUE	10 % INDUCTANCE TOLERANCE	EZ PACKAGE CODE	e2 JEDEC® LEAD (Pb)-FREE STANDARD
-----------------------	------------------------------------	---------------------------------	-----------------------	---

## GLOBAL PART NUMBER

<b>I</b>	<b>M</b>	<b>1</b>	<b>0</b>	<b>R</b>	<b>F</b>	<b>C</b>	<b>L</b>	<b>E</b>	<b>Z</b>	<b>1</b>	<b>R</b>	<b>0</b>	<b>K</b>	<b>1</b>	<b>2</b>
MODEL				PACKAGE CODE				INDUCTANCE VALUE				INDUCTANCE TOLERANCE			

## **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.

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.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

[IM10RFCLBH221J12](#) [IM10RFCLBH102J12](#) [IM10RFCLBH101K12](#) [IM10RFCLBH2R2K12](#) [IM10RFCLBH6R8K12](#)  
[IM10RFCL12 2.2 10%](#) [IM10RFCL12 220 5%](#) [IM10RFCM13 8.2 10%](#) [IM10RFCL12 33 5%](#) [IM10RFCL12 270 5%](#)  
[IM10RFCMBH8R2K13](#) [IM10RFCLBH330J12](#) [IM10RFCLBH271J12](#)