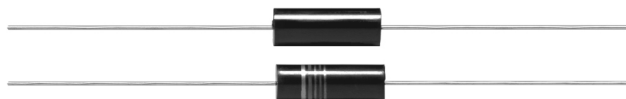


## Inductors, Commercial, Molded, Axial Leaded



### 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  $V_{\text{RMS}}$  at sea level

**Operating Temperature:**  $-55\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$

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

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

**Rating:**  $\frac{1}{2}$  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
- Compliant to RoHS directive 2002/95/EC



**RoHS**  
COMPLIANT

### DENSITY SPECIFICATIONS

**Weight:** 4.1 g maximum

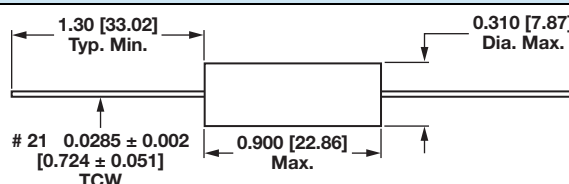
### ENVIRONMENTAL SPECIFICATIONS

**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)	IRON CORE
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**<sup>(1)</sup> Model electricals and tolerances shown**MARKING**

- Color coded

**ORDERING INFORMATION**

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

**GLOBAL PART NUMBER**

I	M	1	0	R	F	C	L	E	Z	1	R	0	K	1	2
MODEL							PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE		SERIES	



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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