

# Wirewound, Surface-Mount, Molded Inductors



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STAI	NDARE	ELECTRI	CAL	SPECIFICATIONS			
IND. (µH)	TOL.	TEST FREQ. (MHz) L & Q	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA) (1)	
0.010	± 20 %	50.0	50	1000	0.20	450	
0.012	± 20 %	50.0	50	1000	0.20	450	
0.018 0.022	± 20 % ± 20 %	50.0 50.0	50 50	1000 1000	0.20 0.20	450 450	
0.027	± 20 %	50.0	50	1000	0.20	450	
0.033	± 20 %	50.0	50	1000	0.30	450	
0.039 0.047	± 20 % ± 20 %	50.0 50.0	50 50	1000 1000	0.30 0.30	450 450	
0.056	± 20 %	50.0	40	900	0.35	450	
0.068 0.082	± 20 % ± 20 %	50.0 50.0	40 40	800 700	0.35 0.40	450 450	
0.10	± 20 %	25.2	30	650	0.40	450 450	
0.12	± 20 %	25.2	30	600	0.30	450	
0.15 0.18	± 20 % ± 20 %	25.2 25.2	30 30	500 400	0.30 0.35	450 450	
0.10	± 20 %	25.2	30	350	0.40	450	
0.27	± 20 %	25.2	30	300	0.45	450	
0.33	± 20 % ± 20 %	25.2 25.2	30 30	250 220	0.55 0.70	430 380	
0.47	± 10 %	25.2	30	190	0.80	355	
0.56 0.68	± 10 % ± 10 %	25.2 25.2	30 30	170 150	1.20 1.40	285 270	
0.82	± 10 %	25.2 25.2	30	140	1.60	250 250	
1.0	± 10 %	7.96	50	100	0.50	450	
1.2 1.5	± 10 % ± 10 %	7.96 7.96	50 50	80.0 70.0	0.55 0.60	430 410	
1.8	± 10 %	7.96	50	60.0	0.65	390	
2.2	± 10 %	7.96	50	55.0	0.70	380	
2.7 3.3	± 10 % ± 10 %	7.96 7.96	50 50	50.0 45.0	0.75 0.80	370 355	
3.9	± 10 %	7.96	50	40.0	0.90	330	
4.7 5.6	± 10 % ± 10 %	7.96 7.96	50 50	35.0 33.0	1.00 1.10	315 300	
6.8	± 10 %	7.96	50	27.0	1.20	285	
8.2	± 10 %	7.96	50	25.0	1.40	270	
10.0 12.0	± 10 % ± 10 %	2.52 2.52	50 50	20.0 18.0	1.60 2.00	250 225	
15.0	± 10 %	2.52	50	17.0	2.50	200	
18.0	± 10 %	2.52	50	15.0	2.80	190	
22.0 27.0	± 10 % ± 10 %	2.52 2.52	50 50	13.0 12.0	3.20 3.60	180 170	
33.0	± 10 %	2.52	50	11.0	4.00	160	
39.0 47.0	± 10 % ± 10 %	2.52 2.52	50 50	11.0 10.0	4.50 5.00	150 140	
56.0	± 10 %	2.52	50	9.0	5.50	135	
68.0	± 10 %	2.52	50	9.0	6.00	130	
82.0 100.0	± 10 % ± 10 %	2.52 0.79	50 40	8.0 8.0	7.00 8.00	120 110	
120.0	± 10 %	0.79	40	6.0	8.00	110	
150.0 180.0	± 10 % ± 10 %	0.79	40 40	5.0 5.0	9.00 9.50	105 102	
220.0	± 10 %	0.79 0.79	40	4.0	10.0	102	
270.0	± 10 %	0.79	40	4.0	12.0	92	
330.0 390.0	± 10 % ± 10 %	0.79 0.79	40 40	3.5 3.0	14.0 16.0	85 80	
470.0	± 10 %	0.79	40	3.0	26.0	62	
560.0	± 10 %	0.79	30	3.0	30.0	50 50	
680.0 820.0	± 10 % ± 10 %	0.79 0.79	30 30	3.0 2.5	30.0 35.0	50 30	
1000.0	± 10 %	0.25	30	2.5	40.0	30	

#### Note

Revision: 10-Sep-2019

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



 Tape and reel packaging for automatic handling, 2000/reel, EIA-481

RoHS COMPLIANT

- Printed marking
- Compatible with vapor phase and infrared reflow soldering
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

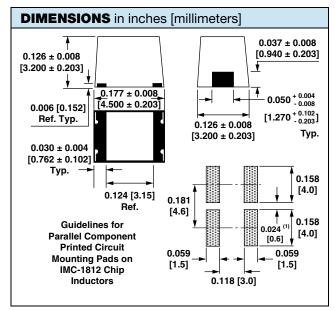
#### **ELECTRICAL SPECIFICATIONS**

Inductance range:  $0.010~\mu H$  to  $1000~\mu H$  Special tolerances available upon request Operating temperature: -55 °C to +125 °C

**Coilform material:** non-magnetic for 0.010  $\mu$ H to 0.82  $\mu$ H; powdered iron for 1.0  $\mu$ H to 120  $\mu$ H; ferrite for 150  $\mu$ H to 1000  $\mu$ H

#### **TEST EQUIPMENT**

- H/P 4342A Q meter with Vishay Dale test fixture or equivalent
- H/P 4191A RF impedance analyzer (for SRF measurements)
- Wheatstone bridge



#### Note

(1) Recommended minimum spacing between components

### **PART MARKING**

- Vishay Dale
- Inductance code
- Date code



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

GLOBAL PART NUMBER								
PRODUCT FAMILY	1 8 1 2 SIZE	PACKAGE CODE	1 0 0 INDUCTANCE VALUE	K TOL.				



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