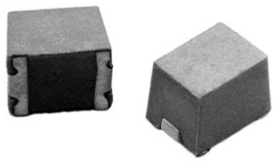
Surface Mount, Molded Inductor



STANDARD ELECTRICAL SPECIFICATIONS

IND. (µH)	TOL.	Q MIN.	TEST FREQ. L & Q (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED* DC CURRENT (mA)
0.010	± 20 %	50	50.0	1000	0.20	450
0.012	± 20 %	50	50.0	1000	0.20	450
0.018	± 20 %	50	50.0	1000	0.20	450
0.022	± 20 %	50	50.0	1000	0.20	450
0.027	± 20 %	50	50.0	1000	0.20	450
0.033	± 20 %	50	50.0	1000	0.30	450
0.039	± 20 %	50	50.0	1000	0.30	450
0.047	± 20 %	50	50.0	1000	0.30	450
0.056	± 20 %	40	50.0	900	0.35	450
0.068	± 20 %	40	50.0	800	0.35	450
0.082	± 20 %	40	50.0	700	0.40	450
0.10	± 20 %	30	25.2	650	0.32	450
0.12	± 20 %	30	25.2	600	0.30	450
0.15	± 20 %	30	25.2	500	0.30	450
0.18	± 20 %	30	25.2	400	0.35	450
0.22	± 20 %	30	25.2	350	0.40	450
0.27	± 20 %	30	25.2	300	0.45	450
0.33	± 20 %	30	25.2	250	0.55	430
0.39	± 20 %	30	25.2	220	0.70	380
0.47	± 10 %	30	25.2	190	0.80	355
0.56	± 10 %	30	25.2	170	1.20	285
0.68	± 10 %	30	25.2	150	1.40	270
0.82	± 10 %	30	25.2	140	1.60	250
1.0	± 10 %	50	7.96	100	0.50	450
1.2	± 10 %	50	7.96	80.0	0.55	430
1.5	± 10 %	50	7.96	70.0	0.60	410
1.8	± 10 %	50	7.96	60.0	0.65	390
2.2	± 10 %	50	7.96	55.0	0.70	380
2.7	± 10 %	50	7.96	50.0	0.75	370
3.3	± 10 %	50	7.96	45.0	0.80	355
3.9	± 10 %	50	7.96	40.0	0.90	330
4.7	± 10 %	50	7.96	35.0	1.00	315
5.6	± 10 %	50	7.96	33.0	1.10	300
6.8	± 10 %	50	7.96	27.0	1.20	285
8.2	± 10 %	50	7.96	25.0	1.40	270
10.0	± 10 %	50	2.52	20.0	1.60	250
12.0	± 10 %	50	2.52	18.0	2.00	225
15.0	± 10 %	50	2.52	17.0	2.50	200
18.0	± 10 %	50	2.52	15.0	2.80	190
22.0	± 10 %	50	2.52	13.0	3.20	180
27.0	± 10 %	50	2.52	12.0	3.60	170
33.0	± 10 %	50	2.52	11.0	4.00	160
39.0	± 10 %	50	2.52	11.0	4.50	150
47.0	± 10 %	50	2.52	10.0	5.00	140
56.0	± 10 %	50	2.52	9.0	5.50	135
68.0	± 10 %	50	2.52	9.0	6.00	130
82.0	± 10 %	50	2.52	8.0	7.00	120
100.0	± 10 %	40	0.79	8.0	8.00	110
120.0	± 10 %	40	0.79	6.0	8.00	110
150.0	± 10 %	40	0.79	5.0	9.00	105
180.0	± 10 %	40	0.79	5.0	9.50	102
220.0	± 10 %	40	0.79	4.0	10.0	100
270.0	± 10 %	40	0.79	4.0	12.0	92
330.0	± 10 %	40	0.79	3.5	14.0	85
390.0	± 10 %	40	0.79	3.0	16.0	80
470.0	± 10 %	40	0.79	3.0	26.0	62
560.0	± 10 %	30	0.79	3.0	30.0	50
680.0	± 10 %	30	0.79	3.0	30.0	50
820.0	± 10 %	30	0.79	2.5	35.0	30
1000.0	± 10 %	30	0.25	2.5	40.0	30

*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
- Printed marking
- Compatible with vapor phase and infrared reflow soldering
- 100 % lead (Pb)-free and RoHS compliant

Pb-free **RoHS** COMPLIANT

ELECTRICAL SPECIFICATIONS

Inductance Range: 0.010 µH to 1000 µH

Inductance Tolerance: ± 20 % for 0.010 µH to 0.39 µH
± 10 % for 0.47 µH to 1000 µH standard
± 10 %, ± 5 %, ± 3 % available

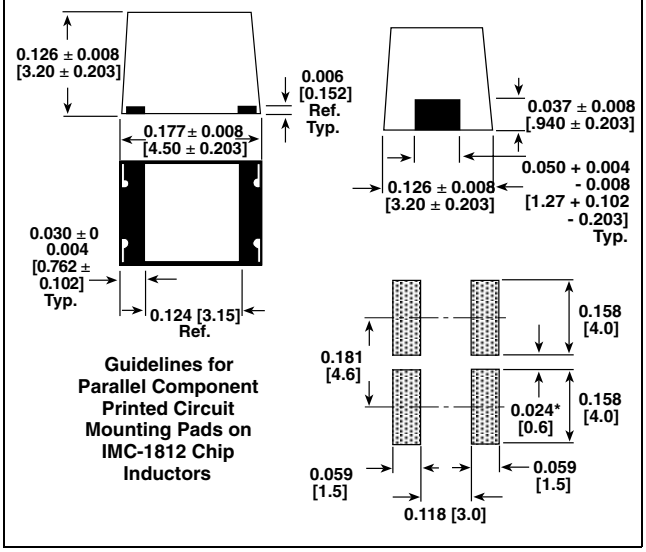
Temperature Range: - 55 °C to + 125 °C

Coilform Material: Non-magnetic for 0.010 µH to 0.82 µH Powdered Iron for 1.0 µH to 120 µH. Ferrite for 150 µH to 1000 µH

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

DIMENSIONS in inches [millimeters]



Guidelines for Parallel Component Printed Circuit Mounting Pads on IMC-1812 Chip Inductors

* Recommended minimum spacing between components

PART MARKING

- Vishay Dale
- Inductance value
- Date code

DESCRIPTION

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

GLOBAL PART NUMBER

I	M	C	1	8	1	2	E	R	1	0	0	K
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

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