

## High Frequency, Surface Mount Inductors


**RoHS**  
COMPLIANT

### FEATURES

- High self-resonant frequency values
- High Q values at higher frequencies
- Wirewound construction
- Compatible with vapor phase and infrared reflow soldering
- Tape and reel packaging for automatic handling, 2000/reel
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 3.3 nH to 47 000 nH

**Inductance and Tolerance:** 0.3 nH for 3.3 nH  
± 5 % for 6.8 nH to 47 000 nH

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

**Core Material:** Ceramic from 3.3 nH to 1000 nH  
Ferrite from 1200 nH to 47 000 nH

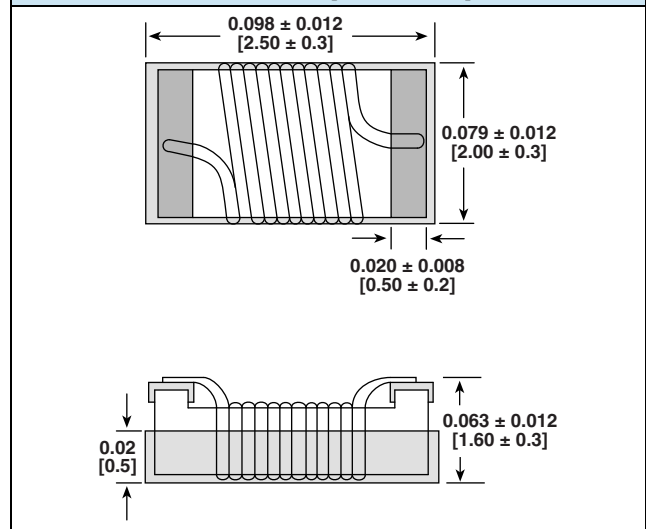
### TEST EQUIPMENT

- Inductance and Q measured on HP4286A
- SRF measured on HP8753D

### STANDARD ELECTRICAL SPECIFICATIONS

IND. (nH)	TOL.	TEST FREQ. (MHz)		Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
		L	Q				
3.3	0.3 nH	100	1000	50	6000	0.06	1000
6.8	5 %	100	1000	50	5500	0.06	1000
8.2	5 %	100	1000	50	5500	0.06	1000
10	5 %	100	1000	50	4300	0.08	1000
12	5 %	100	500	60	3600	0.08	1000
15	5 %	100	500	60	2700	0.08	1000
18	5 %	100	350	60	2700	0.10	1000
22	5 %	100	350	60	2500	0.10	1000
27	5 %	100	350	60	1800	0.10	1000
33	5 %	100	350	60	1700	0.10	1000
39	5 %	100	350	60	1500	0.10	1000
47	5 %	100	350	60	1500	0.10	1000
56	5 %	100	350	60	1350	0.12	1000
68	5 %	100	350	60	1300	0.15	1000
82	5 %	100	350	60	1100	0.18	1000
100	5 %	100	350	60	1100	0.18	1000
120	5 %	25	100	45	950	0.20	800
150	5 %	25	100	45	880	0.22	800
180	5 %	25	100	45	800	0.33	800
220	5 %	25	100	45	730	0.45	800
270	5 %	25	100	45	650	0.75	600
330	5 %	25	100	45	570	0.90	500
390	5 %	25	100	45	530	1.06	470
470	5 %	25	100	45	480	1.17	420
560	5 %	25	100	45	430	1.50	310
680	5 %	25	100	45	380	2.06	230
750	5 %	25	100	45	360	2.20	200
820	5 %	25	100	45	350	2.30	180
910	5 %	25	100	45	330	3.18	150
1000	5 %	25	50	35	310	3.30	120
1200	5 %	7.96	7.96	20	280	1.30	230
1500	5 %	7.96	7.96	20	250	1.65	220
1800	5 %	7.96	7.96	20	200	2.20	210
2200	5 %	7.96	7.96	20	160	2.35	200
2700	5 %	7.96	7.96	20	130	2.60	195
3300	5 %	7.96	7.96	20	80	2.85	185
3900	5 %	7.96	7.96	20	50	4.00	180
4700	5 %	7.96	7.96	20	45	4.30	175
5600	5 %	7.96	7.96	20	42	2.60	170
6800	5 %	7.96	7.96	20	39	2.80	165
8200	5 %	7.96	7.96	20	36	3.05	160
10 000	5 %	2.52	2.52	15	33	3.50	150
12 000	5 %	2.52	2.52	15	30	3.60	140
15 000	5 %	2.52	2.52	15	26	4.00	130
18 000	5 %	2.52	2.52	15	24	4.50	120
22 000	5 %	2.52	2.52	15	22	5.00	110
27 000	5 %	2.52	2.52	15	21	6.00	95
33 000	5 %	2.52	2.52	15	20	6.50	85
39 000	5 %	2.52	2.52	15	18	8.50	60
47 000	5 %	2.52	2.52	15	17	14.00	45

### DIMENSIONS in inches [millimeters]

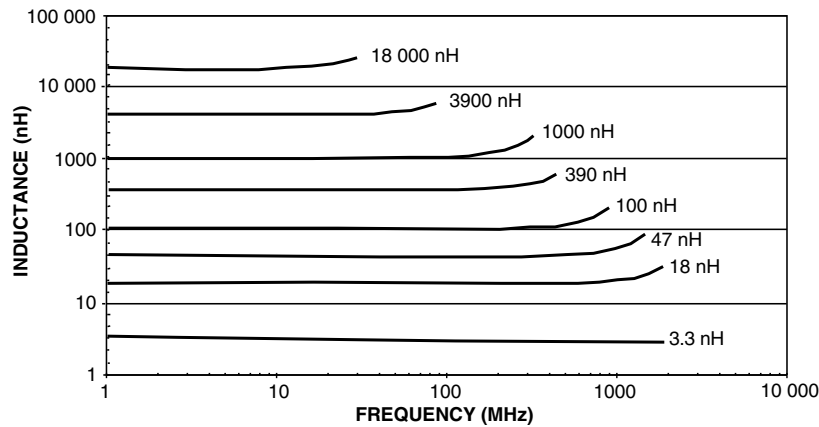
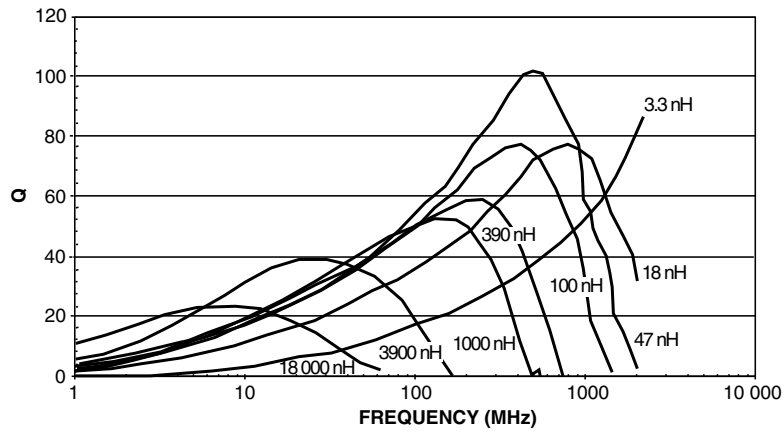
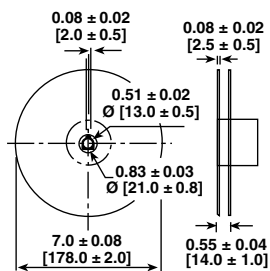
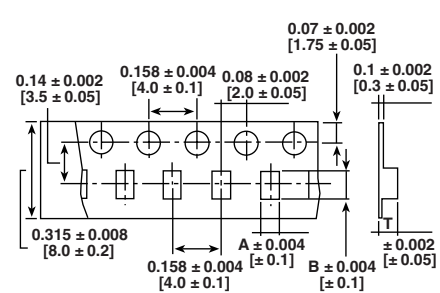
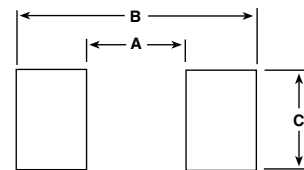


DESCRIPTION				
IMC-1008	10 nH	± 5 %	ER	e4 <sup>(1)</sup>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

#### Note

<sup>(1)</sup> For parts within 3.3 nH to 910 nH please use e4 for JEDEC lead (Pb)-free standard. For parts within 1000 nH to 47 000 nH please use e3 for JEDEC lead (Pb)-free standard.

GLOBAL PART NUMBER				
I	M	C	1	0
PRODUCT FAMILY			SIZE	
	E	R	1	0
	PACKAGE CODE		INDUCTANCE VALUE	J
				TOL.

**PERFORMANCE GRAPHS IMC-1008**

**TAPE AND REEL SPECIFICATIONS in inches [millimeters]**
**REEL DIMENSIONS**

**TAPE DIMENSIONS**

**RECOMMENDED PATTERN**


MODEL	UNITS PER REEL	MODEL	A	B	T	MODEL	A	B	C
IMC-1008	2000	IMC-1008	0.087 [2.20]	0.110 [2.80]	0.071 [1.80]	IMC-1008	0.047 [1.20]	0.150 [3.80]	0.100 [2.54]



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