

## High Frequency, Surface Mount Inductor



### FEATURES

- High self-resonant frequency values
- High Q values at higher frequencies
- Wirewound construction
- Tape and reel packaging for automatic handling, 2000/reel
- Compatible with vapor phase and infrared reflow soldering


**RoHS**  
COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

IND. (nH)	TOL.	TEST FREQ. L (MHz)	Q MIN.	TEST FREQ. Q (MHz)	SELF-RESONANT FREQ. MIN. (MHz)	DCR MAX. (Ohms)	RATED DC CURRENT (mA)
3.3	0.3 nH	100	50	1000	6000	0.06	1000
6.8	±5%	100	50	1000	5500	0.06	1000
8.2	±5%	100	50	1000	5500	0.06	1000
10	±5%	100	50	1000	4300	0.08	1000
12	±5%	100	60	500	3600	0.08	1000
15	±5%	100	60	500	2700	0.08	1000
18	±5%	100	60	350	2700	0.10	1000
22	±5%	100	60	350	2500	0.10	1000
27	±5%	100	60	350	1800	0.10	1000
33	±5%	100	60	350	1700	0.10	1000
39	±5%	100	60	350	1500	0.10	1000
47	±5%	100	60	350	1500	0.10	1000
56	±5%	100	60	350	1350	0.12	1000
68	±5%	100	60	350	1300	0.15	1000
82	±5%	100	60	350	1100	0.18	1000
100	±5%	100	60	350	1100	0.18	1000
120	±5%	25	45	100	950	0.20	800
150	±5%	25	45	100	880	0.22	800
180	±5%	25	45	100	800	0.33	800
220	±5%	25	45	100	730	0.45	800
270	±5%	25	45	100	650	0.75	600
330	±5%	25	45	100	570	0.90	500
390	±5%	25	45	100	530	1.06	470
470	±5%	25	45	100	480	1.17	420
560	±5%	25	45	100	430	1.50	310
680	±5%	25	45	100	380	2.06	230
750	±5%	25	45	100	360	2.20	200
820	±5%	25	45	100	350	2.30	180
910	±5%	25	45	100	330	3.18	150
1000	±5%	25	35	50	310	3.30	120
1200	±5%	7.96	20	7.96	280	1.30	230
1500	±5%	7.96	20	7.96	250	1.65	220
1800	±5%	7.96	20	7.96	200	2.20	210
2200	±5%	7.96	20	7.96	160	2.35	200
2700	±5%	7.96	20	7.96	130	2.60	195
3300	±5%	7.96	20	7.96	80	2.85	185
3900	±5%	7.96	20	7.96	50	4.00	180
4700	±5%	7.96	20	7.96	45	4.30	175
5600	±5%	7.96	20	7.96	42	2.60	170
6800	±5%	7.96	20	7.96	39	2.80	165
8200	±5%	7.96	20	7.96	36	3.05	160
10 000	±5%	2.52	15	2.52	33	3.50	150
12 000	±5%	2.52	15	2.52	30	3.60	140
15 000	±5%	2.52	15	2.52	26	4.00	130
18 000	±5%	2.52	15	2.52	24	4.50	120
22 000	±5%	2.52	15	2.52	22	4.80	110
27 000	±5%	2.52	15	2.52	21	5.30	95
33 000	±5%	2.52	15	2.52	20	6.10	85
39 000	±5%	2.52	15	2.52	18	8.30	60
47 000	±5%	2.52	15	2.52	17	12.00	45

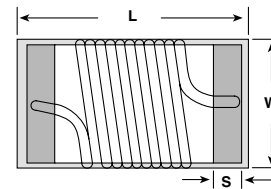
### ELECTRICAL SPECIFICATIONS

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

### DIMENSIONS in inches [millimeters]



L	W	S
0.098 ± 0.012 [2.50 ± 0.3]	0.079 ± 0.012 [2.00 ± 0.3]	0.020 ± 0.008 [0.5 ± 0.2]

U	T
0.02 [0.5]	0.063 ± 0.012 [1.60 ± 0.3]

### DESCRIPTION

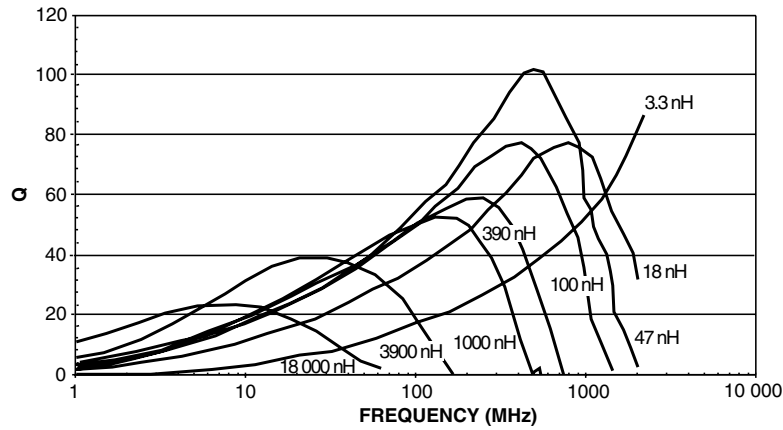
IMC-1008	10 nH	± 5 %	ER	e4*
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD
*NOTE: For parts within 3.3 nH to 910 nH please use e4 for JEDEC lead free standard. For parts within 1 µH to 47 µH please use e3 for JEDEC lead free standard.				

### GLOBAL PART NUMBER

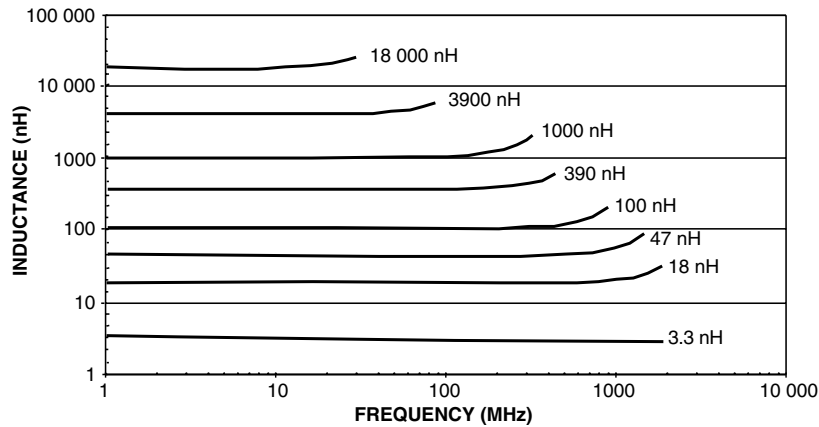
I	M	C	1	0	0	8	E	R	1	0	N	J
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

**PERFORMANCE GRAPHS**

IMC-1008

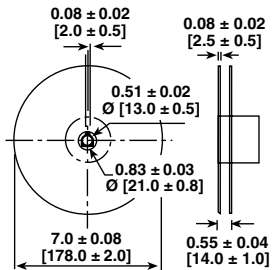


IMC-1008

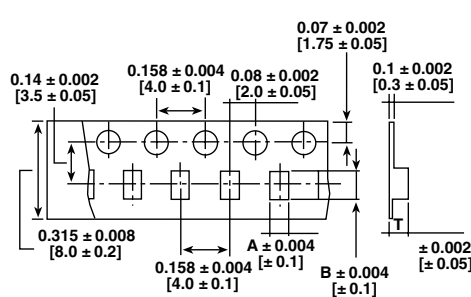


**TAPE AND REEL SPECIFICATIONS** in inches [millimeters]

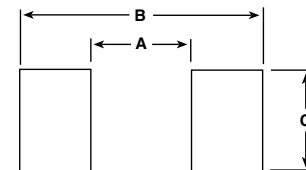
**REEL DIMENSIONS**



**TAPE DIMENSIONS**



**RECOMMENDED PATTERN**



MODEL	UNITS PER REEL	MODEL	A	B	T	MODEL	A	B	C
IMC-1008	2000	IMC-1008	0.087 [2.2]	0.110 [2.80]	0.071 [1.8]	IMC-1008	0.047 [1.20]	0.150 [3.8]	0.100 [2.54]



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