

## 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)
2.2	± 0.3 nH, 0.2 nH	250	50	1000	6000	0.06	800
2.7	± 0.3 nH, 0.2 nH	250	35	1000	6000	0.08	800
3.3	± 0.3 nH, 0.2 nH	250	60	1000	6000	0.08	800
3.9	± 0.3 nH, 0.2 nH	250	60	1000	6000	0.06	600
4.7	± 0.3 nH, 0.2 nH	250	60	1000	5800	0.06	600
5.6	± 5%, 2%	250	60	1000	5800	0.08	600
6.8	± 5%, 2%	250	60	1000	5500	0.06	600
8.2	± 5%, 2%	250	60	1000	5500	0.06	600
10	± 5%, 2%	250	60	500	4800	0.08	600
12	± 5%, 2%	250	60	500	4100	0.08	600
15	± 5%, 2%	250	60	500	3600	0.08	600
18	± 5%, 2%	250	60	500	3400	0.08	600
22	± 5%, 2%	250	60	500	3300	0.10	600
27	± 5%, 2%	250	60	500	2600	0.12	600
33	± 5%, 2%	250	60	500	2400	0.15	500
39	± 5%, 2%	250	60	500	2100	0.18	500
47	± 5%, 2%	200	60	500	1700	0.15	500
56	± 5%, 2%	200	60	500	1600	0.25	500
68	± 5%, 2%	200	60	500	1450	0.27	500
82	± 5%, 2%	150	60	500	1350	0.32	500
100	± 5%, 2%	150	60	500	1200	0.43	500
120	± 5%, 2%	150	50	250	1100	0.48	500
150	± 5%, 2%	100	50	250	950	0.56	400
180	± 5%, 2%	100	50	250	900	0.78	400
220	± 5%, 2%	100	50	250	860	1.00	400
270	± 5%, 2%	100	45	250	850	1.46	350
330	± 5%, 2%	100	45	250	800	1.65	300
390	± 5%, 2%	100	45	250	780	2.20	210
470	± 5%	25.2	45	100	375	0.95	500
560	± 5%	25.2	45	100	340	1.10	450
680	± 5%	25.2	35	100	188	1.20	400
820	± 5%	25.2	35	100	215	1.50	300
1000	± 5%	25.2	35	50	200	2.13	180
1200	± 5%	7.96	15	7.96	200	2.38	150
1500	± 5%	7.96	15	7.96	200	2.90	130
1800	± 5%	7.96	15	7.96	120	3.00	120
2200	± 5%	7.96	15	7.96	110	3.10	110
2700	± 5%	7.96	15	7.96	100	3.50	100
3300	± 5%	7.96	15	7.96	70	2.30	210
3900	± 5%	7.96	15	7.96	60	2.50	200
4700	± 5%	7.96	15	7.96	50	2.80	180
5600	± 5%	7.96	15	7.96	45	3.00	160
6800	± 5%	7.96	15	7.96	45	3.20	130
8200	± 5%	7.96	15	7.96	40	3.50	120
10 000	± 5%	2.52	10	2.52	40	5.00	80

### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 2.2 nH to 10 000 nH  
**Inductance Tolerance:** 0.3 nH for 2.2 - 4.7 nH  
 ± 5% for 5.6 nH to 10 000 nH  
**Temperature Range:** - 40 °C to 125 °C  
**Core Material:** Ceramic for 2.2 nH to 390 nH  
 Ferrite for 470 nH to 10 000 nH

### TEST EQUIPMENT

- Inductance and Q measured on HP4286A (2.2 nH - 390 nH) and HP4285A (470 nH - 10 000 nH)
- SRF measured on HP8753E
- DCR measured on HP4338B

### DIMENSIONS in inches [millimeters]

<b>L</b>	<b>W</b>	<b>S</b>
0.079 ± 0.008 [2.00 ± 0.2]	0.050 ± 0.008 [1.25 ± 0.2]	0.016 ± 0.008 [0.40 ± 0.2]
<b>U</b>		<b>T</b>
0.02 [0.5]		0.048 ± 0.008 [1.20 ± 0.2]

### DESCRIPTION

**IMC-0805-01**      **10 nH**      **± 5%**      **ER**      **e4\***  
 MODEL      INDUCTANCE VALUE      INDUCTANCE TOLERANCE      PACKAGE CODE      JEDEC LEAD (Pb)-FREE STANDARD

\*NOTE: For parts within 2.2 nH to 390 nH please use e4 for JEDEC lead (Pb)-free standard. For parts within 470 nH to 10 000 nH please use e3 for JEDEC lead (Pb)-free standard.

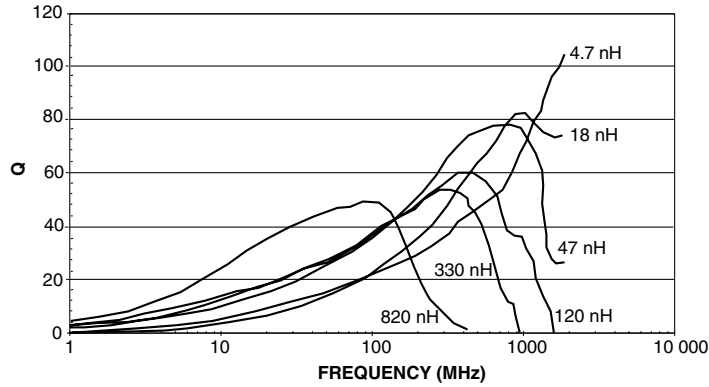
### GLOBAL PART NUMBER

I	M	C	0	8	0	5	E	R	1	0	N	J	0	1
MODEL			SIZE			PACKAGE CODE	INDUCTANCE VALUE			TOL.	SERIES			

**PERFORMANCE GRAPHS**

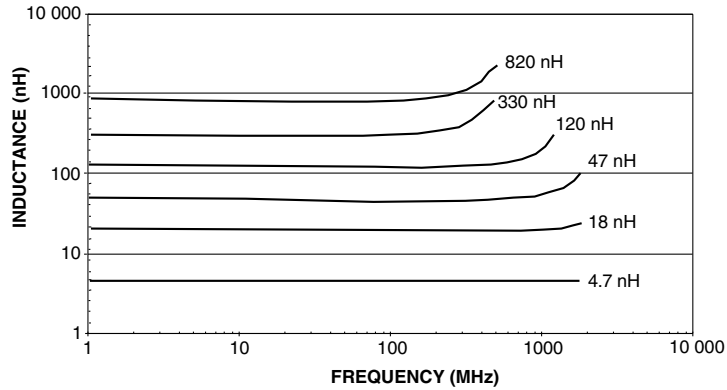
IMC-0805-01

Q VS FREQUENCY



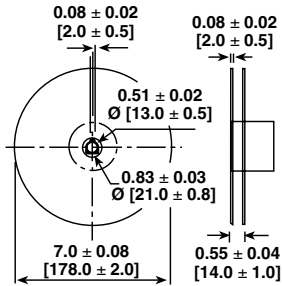
IMC-0805-01

INDUCTANCE VS FREQUENCY

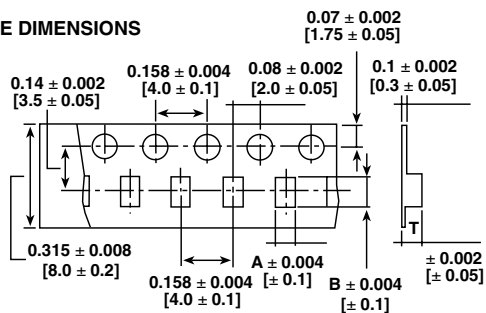


**TAPE AND REEL SPECIFICATIONS** in inches [millimeters]

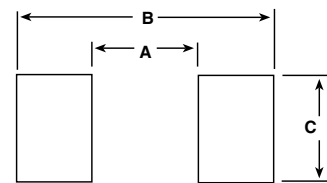
REEL DIMENSIONS



TAPE DIMENSIONS



RECOMMENDED PATTERN



MODEL	UNITS PER REEL	MODEL	A	B	T	MODEL	A	B	C
IMC-0805-01	2000	IMC-0805-01	0.055 [1.4]	0.091 [2.3]	0.055 [1.4]	IMC-0805-01	0.047 [1.20]	0.102 [2.6]	0.047 [1.20]



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