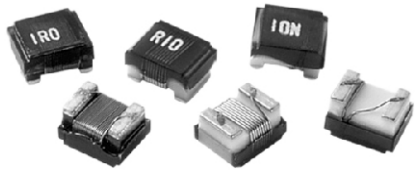
Wirewound, Surface-Mount, High Frequency RF Inductors



FEATURES

- Size: 2.5 mm x 2.0 mm x 1.6 mm
- High self-resonant frequency (SRF) from 17 MHz to 6 GHz
- Inductance range: 3.3 nH to 47 µH
- High Q value
- Core material: ceramic from 3.3 nH to 1000 nH; ferrite from 1200 nH to 47 000 nH
- Terminations: nickel underlayer, with gold plating for 3.3 nH to 1000 nH, and tin plating for 1200 nH to 47 000 nH
- Operating temperature: -40 °C to +125 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

HALOGEN FREE

TEST EQUIPMENT

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

APPLICATIONS

- High frequency circuits, bluetooth, tuners, mobile communications
- Impedance matching to optimize power transfer in RF power amplifiers

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	IND. (nH)	TOL.	TEST FREQ. (MHz)		Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
			L	Q				
IMC1008ER3N3S	3.3	0.3 nH	100	1000	50	6000	0.06	1000
IMC1008ER6N8J	6.8	5 %	100	1000	50	5500	0.06	1000
IMC1008ER8N2J	8.2	5 %	100	1000	50	5500	0.06	1000
IMC1008ER10NJ	10	5 %	100	1000	50	4300	0.08	1000
IMC1008ER12NJ	12	5 %	100	500	60	3600	0.08	1000
IMC1008ER15NJ	15	5 %	100	500	60	2700	0.08	1000
IMC1008ER18NJ	18	5 %	100	350	60	2700	0.1	1000
IMC1008ER22NJ	22	5 %	100	350	60	2500	0.1	1000
IMC1008ER27NJ	27	5 %	100	350	60	1800	0.1	1000
IMC1008ER33NJ	33	5 %	100	350	60	1700	0.1	1000
IMC1008ER39NJ	39	5 %	100	350	60	1500	0.1	1000
IMC1008ER47NJ	47	5 %	100	350	60	1500	0.1	1000
IMC1008ER56NJ	56	5 %	100	350	60	1350	0.12	1000
IMC1008ER68NJ	68	5 %	100	350	60	1300	0.15	1000
IMC1008ER82NJ	82	5 %	100	350	60	1100	0.18	1000
IMC1008ERR10J	100	5 %	100	350	60	1100	0.18	1000
IMC1008ERR12J	120	5 %	25	100	45	950	0.2	800
IMC1008ERR15J	150	5 %	25	100	45	880	0.22	800
IMC1008ERR18J	180	5 %	25	100	45	800	0.33	800
IMC1008ERR22J	220	5 %	25	100	45	730	0.45	800
IMC1008ERR27J	270	5 %	25	100	45	650	0.75	600
IMC1008ERR33J	330	5 %	25	100	45	570	0.9	500
IMC1008ERR39J	390	5 %	25	100	45	530	1.06	470
IMC1008ERR47J	470	5 %	25	100	45	480	1.17	420
IMC1008ERR56J	560	5 %	25	100	45	430	1.5	310
IMC1008ERR68J	680	5 %	25	100	45	380	2.06	230
IMC1008ERR82J	820	5 %	25	100	45	350	2.3	180
IMC1008ERR91J	910	5 %	25	100	45	330	3.18	150
IMC1008ER1R0J	1000	5 %	25	50	35	310	3.3	120
IMC1008ER1R2J	1200	5 %	7.96	7.96	20	280	1.3	230

For technical questions, contact: magnetics@vishay.com

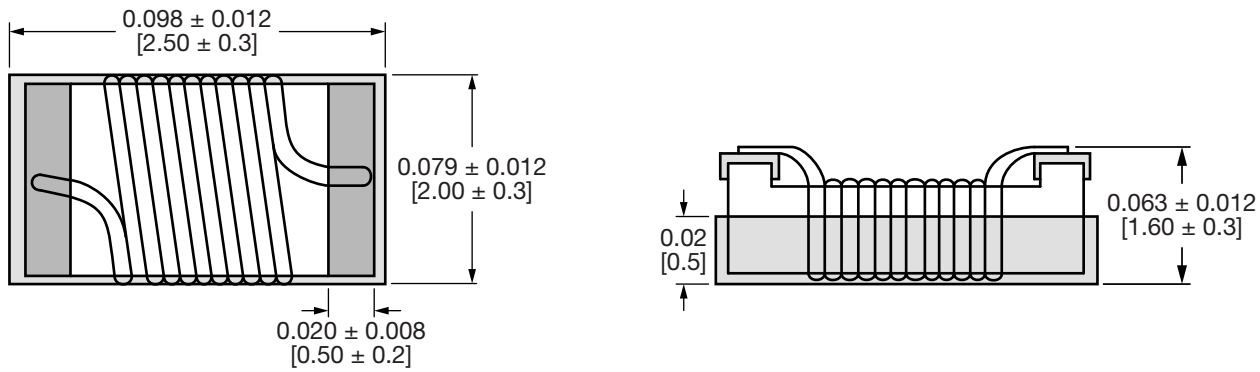
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STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	IND. (nH)	TOL.	TEST FREQ. (MHz)		Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
			L	Q				
IMC1008ER1R5J	1500	5 %	7.96	7.96	20	250	1.65	220
IMC1008ER1R8J	1800	5 %	7.96	7.96	20	200	2.2	210
IMC1008ER2R2J	2200	5 %	7.96	7.96	20	160	2.35	200
IMC1008ER2R7J	2700	5 %	7.96	7.96	20	130	2.6	195
IMC1008ER3R3J	3300	5 %	7.96	7.96	20	80	2.85	185
IMC1008ER3R9J	3900	5 %	7.96	7.96	20	50	4	180
IMC1008ER4R7J	4700	5 %	7.96	7.96	20	45	4.3	175
IMC1008ER5R6J	5600	5 %	7.96	7.96	20	42	2.6	170
IMC1008ER6R8J	6800	5 %	7.96	7.96	20	39	2.8	165
IMC1008ER8R2J	8200	5 %	7.96	7.96	20	36	3.05	160
IMC1008ER100J	10 000	5 %	2.52	2.52	15	33	3.5	150
IMC1008ER120J	12 000	5 %	2.52	2.52	15	30	3.6	140
IMC1008ER150J	15 000	5 %	2.52	2.52	15	26	4	130
IMC1008ER180J	18 000	5 %	2.52	2.52	15	24	4.5	120
IMC1008ER220J	22 000	5 %	2.52	2.52	15	22	5	110
IMC1008ER270J	27 000	5 %	2.52	2.52	15	21	6	95
IMC1008ER330J	33 000	5 %	2.52	2.52	15	20	6.5	85
IMC1008ER390J	39 000	5 %	2.52	2.52	15	18	8.5	60
IMC1008ER470J	47 000	5 %	2.52	2.52	15	17	14	45

DIMENSIONS in inches [millimeters]



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DESCRIPTION

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

Note

(1) For 3.3 nH to 1000 nH please use e4 for JEDEC lead (Pb)-free standard. For 1200 nH to 47 000 nH please use e3 for JEDEC lead (Pb)-free standard

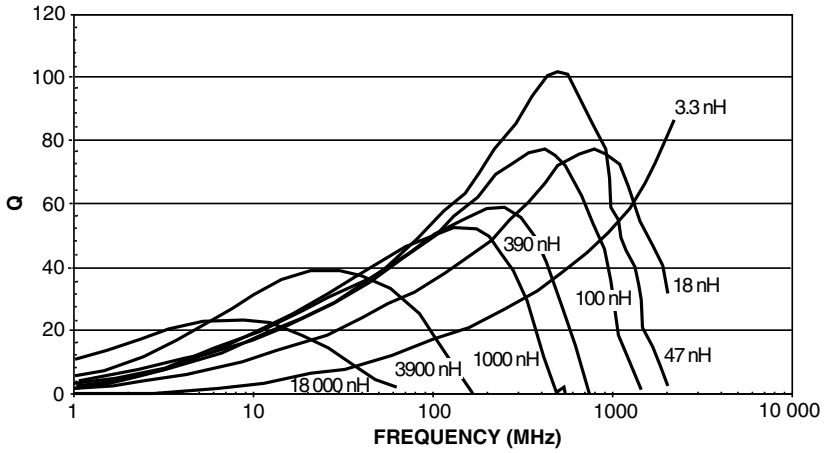
GLOBAL PART NUMBER

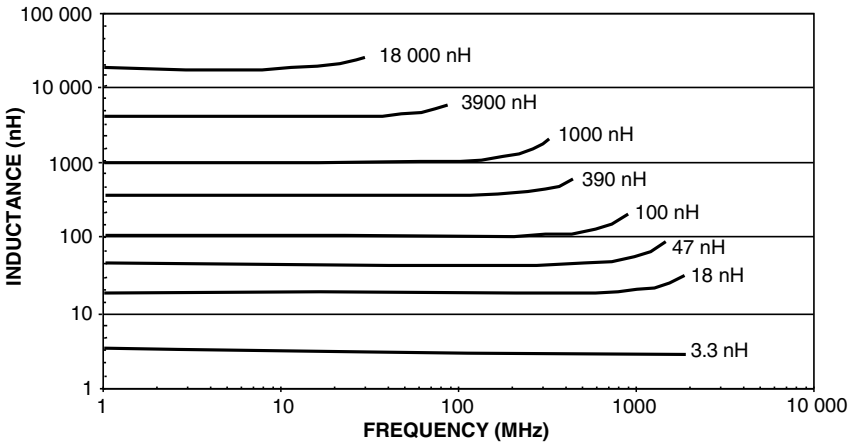
I M C	1 0 0 8	E R	1 0 N	J
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE
		ER = tape and reel	**10N** = 0.010 µH	**J** = ± 5 %

Note

- For additional packaging details see "Packaging Methods"

PERFORMANCE GRAPHS





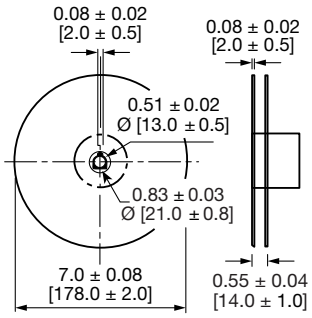
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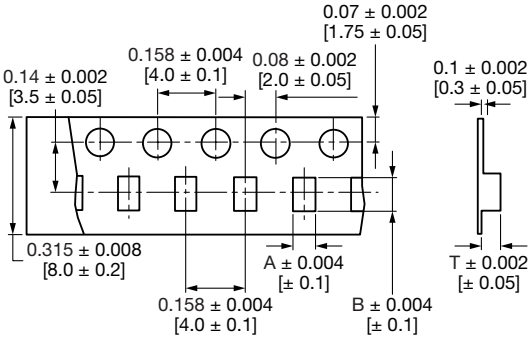
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TAPE AND REEL SPECIFICATIONS in inches [millimeters]

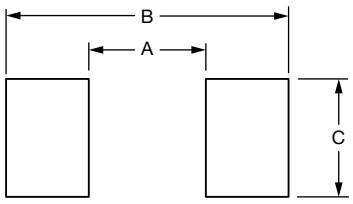
REEL DIMENSIONS



TAPE DIMENSIONS



RECOMMENDED PATTERN



MODEL	UNITS PER REEL
IMC-1008	2000

MODEL	A	B	T
IMC-1008	0.087 [2.20]	0.110 [2.80]	0.071 [1.80]

MODEL	A	B	C
IMC-1008	0.047 [1.20]	0.150 [3.80]	0.100 [2.54]

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