

Wirewound, Surface-Mount, High Frequency RF Inductors



TEST EQUIPMENT

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

APPLICATIONS

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

FEATURES

- Size: 2.0 mm x 1.25 mm x 1.2 mm
- High self-resonant frequency (SRF) from 40 MHz to upwards of 6 GHz
- Inductance range: 2.2 nH to 10 μ H
- High Q value
- Core material: ceramic from 2.2 nH to 390 nH; ferrite from 470 nH to 10 000 nH
- Operating temperature: -40 °C to +125 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



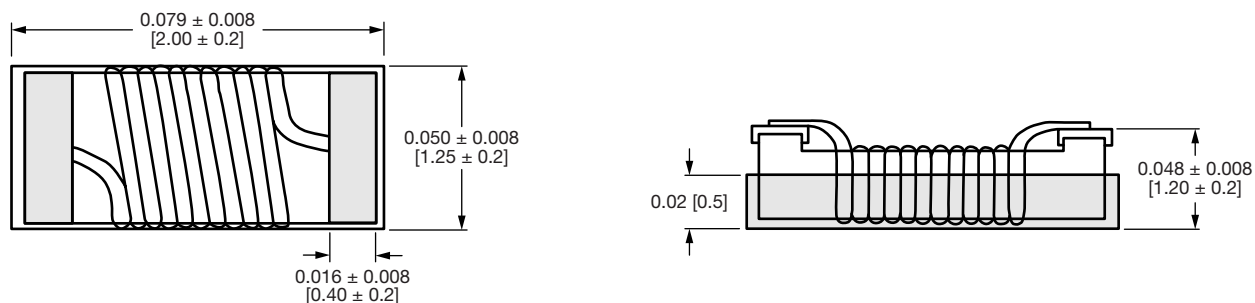
RoHS
COMPLIANT
HALOGEN
FREE

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				
IMC0805ER2N2S01	2.2	0.3 nH	250	1000	50	6000	0.06	800
IMC0805ER2N2C01	2.2	0.2 nH	250	1000	50	6000	0.06	800
IMC0805ER2N7S01	2.7	0.3 nH	250	1000	35	6000	0.08	800
IMC0805ER2N7C01	2.7	0.2 nH	250	1000	35	6000	0.08	800
IMC0805ER3N9S01	3.9	0.3 nH	250	1000	60	6000	0.06	600
IMC0805ER3N9C01	3.9	0.2 nH	250	1000	60	6000	0.06	600
IMC0805ER4N7S01	4.7	0.3 nH	250	1000	60	5800	0.06	600
IMC0805ER4N7C01	4.7	0.2 nH	250	1000	60	5800	0.06	600
IMC0805ER5N6J01	5.6	5 %	250	1000	60	5800	0.08	600
IMC0805ER5N6G01	5.6	2 %	250	1000	60	5800	0.08	600
IMC0805ER6N8J01	6.8	5 %	250	1000	60	5500	0.06	600
IMC0805ER6N8G01	6.8	2 %	250	1000	60	5500	0.06	600
IMC0805ER8N2J01	8.2	5 %	250	1000	60	5500	0.06	600
IMC0805ER8N2G01	8.2	2 %	250	1000	60	5500	0.06	600
IMC0805ER10NJ01	10	5 %	250	500	60	4800	0.08	600
IMC0805ER10NG01	10	2 %	250	500	60	4800	0.08	600
IMC0805ER12NJ01	12	5 %	250	500	60	4100	0.08	600
IMC0805ER12NG01	12	2 %	250	500	60	4100	0.08	600
IMC0805ER15NJ01	15	5 %	250	500	60	3600	0.08	600
IMC0805ER15NG01	15	2 %	250	500	60	3600	0.08	600
IMC0805ER18NJ01	18	5 %	250	500	60	3400	0.08	600
IMC0805ER18NG01	18	2 %	250	500	60	3400	0.08	600
IMC0805ER22NJ01	22	5 %	250	500	60	3300	0.1	600
IMC0805ER22NG01	22	2 %	250	500	60	3300	0.1	600
IMC0805ER27NJ01	27	5 %	250	500	60	2600	0.12	600
IMC0805ER27NG01	27	2 %	250	500	60	2600	0.12	600
IMC0805ER39NJ01	39	5 %	200	500	60	2100	0.18	500
IMC0805ER39NG01	39	2 %	200	500	60	2100	0.18	500
IMC0805ER47NJ01	47	5 %	250	500	60	1700	0.15	500
IMC0805ER47NG01	47	2 %	250	500	60	1700	0.15	500

**STANDARD ELECTRICAL SPECIFICATIONS**

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			L	Q				
IMC0805ER56NJ01	56	5 %	200	500	60	1600	0.25	500
IMC0805ER56NG01	56	2 %	200	500	60	1600	0.25	500
IMC0805ER68NJ01	68	5 %	200	500	60	1450	0.27	500
IMC0805ER68NG01	68	2 %	200	500	60	1450	0.27	500
IMC0805ER82NJ01	82	5 %	150	500	60	1350	0.32	500
IMC0805ER82NG01	82	2 %	150	500	60	1350	0.32	500
IMC0805ERR10J01	100	5 %	150	500	60	1200	0.43	500
IMC0805ERR10G01	100	2 %	150	500	60	1200	0.43	500
IMC0805ERR12J01	120	5 %	150	250	50	1100	0.48	500
IMC0805ERR12G01	120	2 %	150	250	50	1100	0.48	500
IMC0805ERR15J01	150	5 %	100	250	50	950	0.56	400
IMC0805ERR15G01	150	2 %	100	250	50	950	0.56	400
IMC0805ERR18J01	180	5 %	100	250	50	900	0.78	400
IMC0805ERR18G01	180	2 %	100	250	50	900	0.78	400
IMC0805ERR22J01	220	5 %	100	250	50	860	1	400
IMC0805ERR22G01	220	2 %	100	250	50	860	1	400
IMC0805ERR27J01	270	5 %	100	250	45	850	1.46	350
IMC0805ERR27G01	270	2 %	100	250	45	850	1.46	350
IMC0805ERR33J01	330	5 %	100	250	45	800	1.65	300
IMC0805ERR33G01	330	2 %	100	250	45	800	1.65	300
IMC0805ERR39J01	390	5 %	100	250	45	780	2.2	210
IMC0805ERR39G01	390	2 %	100	250	45	780	2.2	210
IMC0805ERR47J01	470	5 %	25.2	100	45	375	0.95	500
IMC0805ERR56J01	560	5 %	25.2	100	45	340	1.1	450
IMC0805ERR68J01	680	5 %	25.2	100	35	188	1.2	400
IMC0805ERR82J01	820	5 %	25.2	100	35	215	1.5	300
IMC0805ER1R0J01	1000	5 %	25.2	50	35	200	2.13	180
IMC0805ER1R2J01	1200	5 %	7.96	7.96	15	200	2.6	150
IMC0805ER1R5J01	1500	5 %	7.96	7.96	15	200	2.9	130
IMC0805ER1R8J01	1800	5 %	7.96	7.96	15	120	3	120
IMC0805ER2R2J01	2200	5 %	7.96	7.96	15	110	3.1	110
IMC0805ER2R7J01	2700	5 %	7.96	7.96	15	100	3.5	100
IMC0805ER3R3J01	3300	5 %	7.96	7.96	15	70	2.3	210
IMC0805ER3R9J01	3900	5 %	7.96	7.96	15	60	2.5	200
IMC0805ER4R7J01	4700	5 %	7.96	7.96	15	50	2.8	180
IMC0805ER5R6J01	5600	5 %	7.96	7.96	15	45	3	160
IMC0805ER6R8J01	6800	5 %	7.96	7.96	15	45	3.2	130
IMC0805ER8R2J01	8200	5 %	7.96	7.96	15	40	3.5	120
IMC0805ER100J01	10 000	5 %	2.52	2.52	10	40	5	80

DIMENSIONS in inches [millimeters]

DESCRIPTION

IMC-0805-01	10 nH	± 5 %	ER	e4 ⁽¹⁾
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

Note

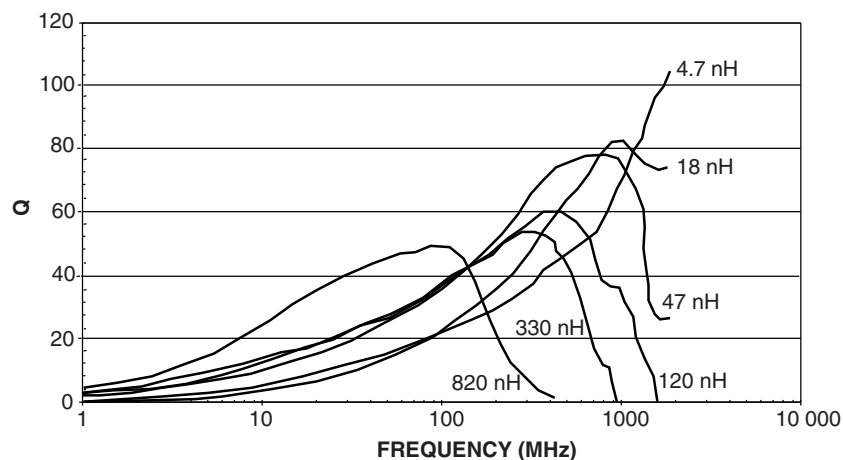
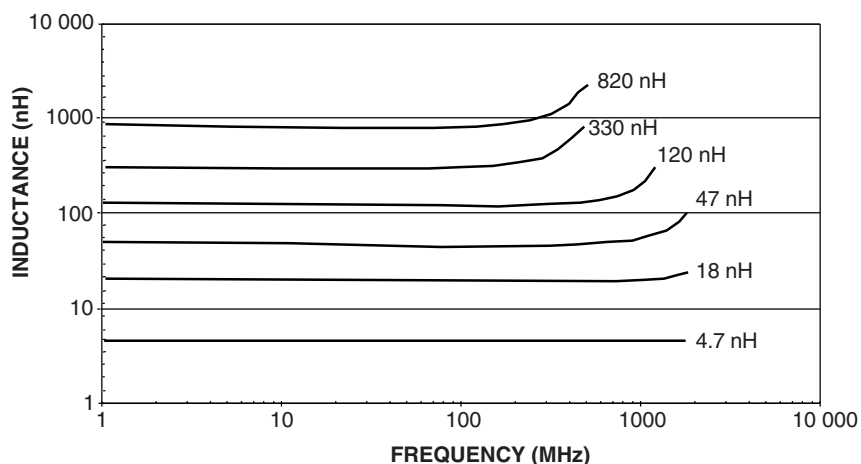
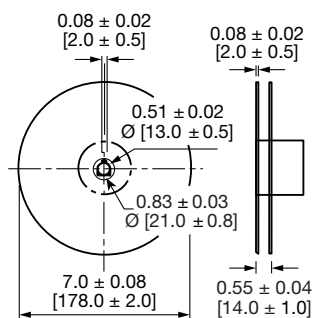
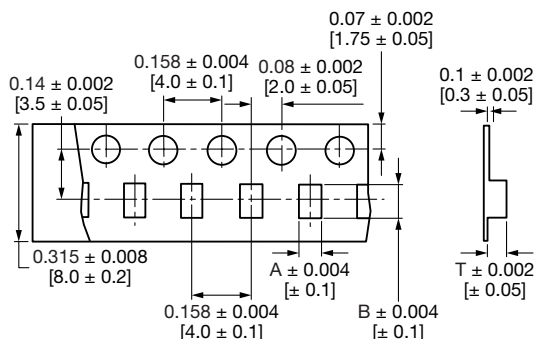
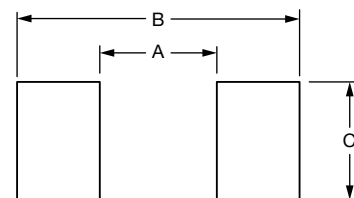
- ⁽¹⁾ For parts within 2.2 nH to 390 nH please use e4 for JEDEC lead (Pb)-free standard. For parts within 470 nH to 10 000 nH please use e3 for JEDEC lead (Pb)-free standard.

GLOBAL PART NUMBER

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

Note

- For additional packaging details see ["Packaging Methods"](#)

PERFORMANCE GRAPHS
Q VS. FREQUENCY

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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