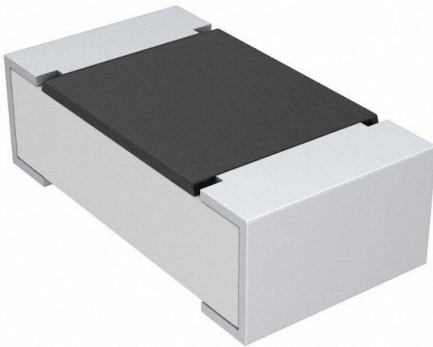


# IMC0603ER3N9C01 Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	IMC0603ER3N9C01-DG
Manufacturer	<a href="#">Vishay Dale</a>
Manufacturer Product Number	IMC0603ER3N9C01
Description	FIXED IND 3.9NH 700MA 80MOHM SMD
Detailed Description	3.9 nH Unshielded Wirewound Inductor 700 mA 80 mOhm Max 0603 (1608 Metric)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

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## Purchase and inquiry

Manufacturer Product Number:

IMC0603ER3N9C01

Series:

IMC-0603-01

Type:

Wirewound

Inductance:

3.9 nH

Current Rating (Amps):

700 mA

Shielding:

Unshielded

Q @ Freq:

20 @ 250MHz

Ratings:

-

Inductance Frequency - Test:

250 MHz

Package / Case:

0603 (1608 Metric)

Size / Dimension:

0.063" L x 0.041" W (1.60mm x 1.05mm)

Manufacturer:

Vishay Dale

Product Status:

Active

Material - Core:

-

Tolerance:

±0.2nH

Current - Saturation (Isat):

-

DC Resistance (DCR):

80mOhm Max

Frequency - Self Resonant:

6.9GHz

Operating Temperature:

-40°C ~ 125°C

Mounting Type:

Surface Mount

Supplier Device Package:

0603 (1608 Metric)

Height - Seated (Max):

0.049" (1.25mm)

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99





## Wirewound, Surface Mount Inductors



### FEATURES

- Excellent solderability and resistance to soldering heat
- Suitable for reflow soldering
- High reliability and easy surface mount assembly
- Wide range of inductance values available
- Tape and reel packaging for automatic handling, 3000/reel EIA 481
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

STANDARD ELECTRICAL SPECIFICATIONS						
IND. (nH)	TOL.	TEST FREQ. (MHz)	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA) <sup>(1)</sup>
		L & Q				
2.0	0.3 nH, 0.2 nH	250	16	6900	0.08	700
3.9	0.3 nH, 0.2 nH	250	20	6900	0.08	700
4.7	0.3 nH, 0.2 nH	250	20	5800	0.11	700
6.8	10 %, 5 %	250	30	5800	0.11	700
8.2	10 %, 5 %	250	30	4600	0.10	700
10	5 %, 2 %	250	30	4800	0.13	700
12	5 %, 2 %	250	35	4000	0.13	700
15	5 %, 2 %	250	35	4000	0.17	700
18	5 %, 2 %	250	38	3100	0.17	700
22	5 %, 2 %	250	38	3000	0.22	700
27	5 %, 2 %	250	40	2800	0.22	600
33	5 %, 2 %	250	43	2300	0.22	600
39	5 %, 2 %	250	43	2200	0.25	600
47	5 %, 2 %	200	40	2000	0.28	600
56	5 %, 2 %	200	40	1900	0.31	600
68	5 %, 2 %	200	40	1700	0.34	600
72	5 %, 2 %	150	35	1700	0.49	400
82	5 %, 2 %	150	35	1700	0.54	400
100	5 %, 2 %	150	35	1400	0.63	400
120	5 %, 2 %	150	35	1300	0.65	300
150	5 %, 2 %	150	35	1000	0.92	280
180	5 %, 2 %	100	30	1000	1.25	240
220	5 %, 2 %	100	30	1000	1.70	200
270	5 %, 2 %	100	30	1000	1.80	170
330	5 %	100	25	450	2.00	150
390	5 %	100	20	350	2.00	170

**Note**

(1) Value obtained when current flows and temperature has risen 15 °C

### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 2 nH to 270 nH

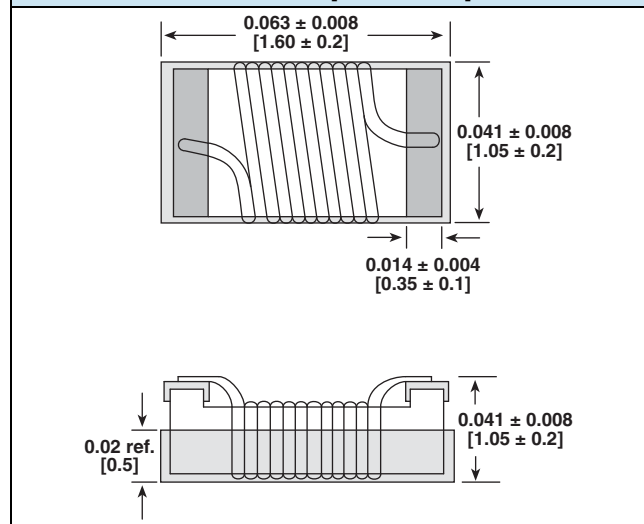
**Operating Temperature:** -40 °C to +125 °C

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

### TEST EQUIPMENT

- Inductance is measured in HP4287A RF LCR meter with HP16193 fixture
- Q is measured in HP4287A RF LCR meter with HP16193 fixture
- SRF is measured in HP8753E RF network analyzer
- DCR is measured in HP4338B milliohmeter

### DIMENSIONS in inches [millimeters]

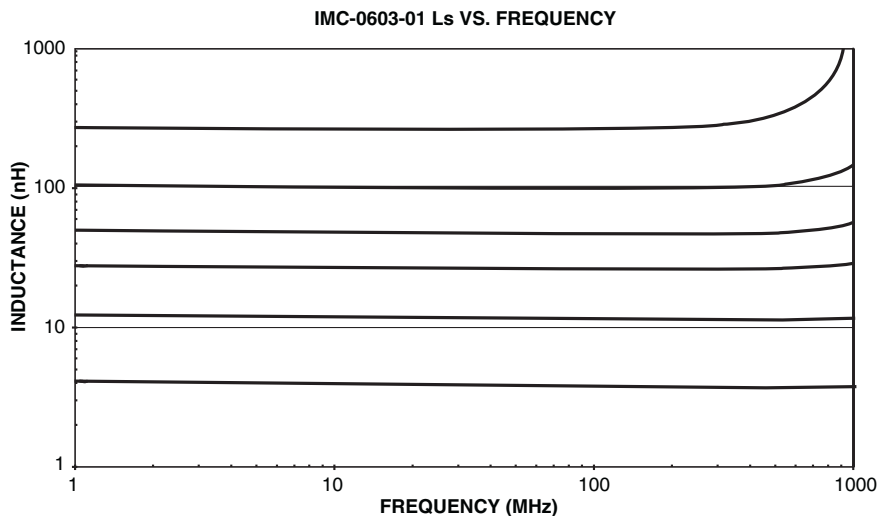
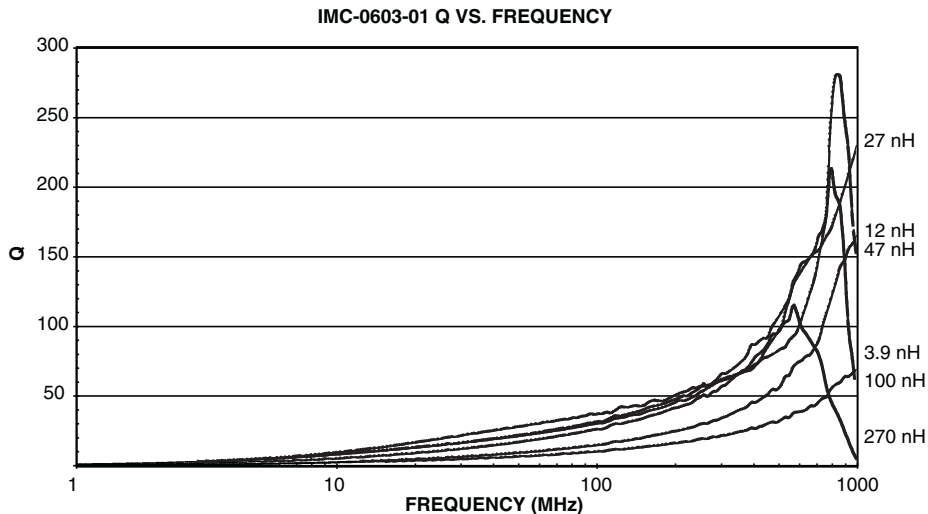


DESCRIPTION				
IMC-0603-01	10 nH	± 5 %	ER	e4
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER														
I	M	C	0	6	0	3	E	R	1	0	N	J	0	1
PRODUCT FAMILY			SIZE			PACKAGE CODE		INDUCTANCE VALUE			TOL.	SERIES		

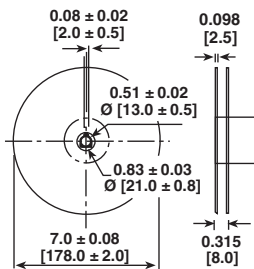


**PERFORMANCE GRAPHS (IMC-0603-01)**

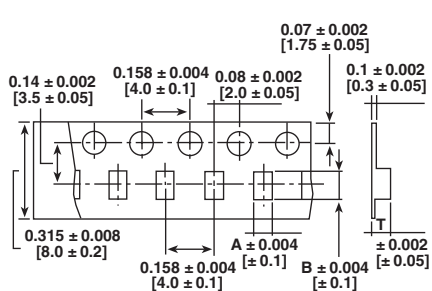


**TAPE AND REEL SPECIFICATIONS in inches [millimeters]**

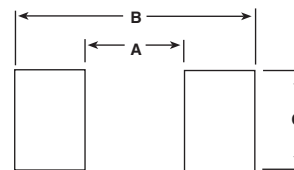
REEL DIMENSIONS



TAPE DIMENSIONS



RECOMMENDED PATTERN



MODEL	UNITS PER REEL	MODEL	A	B	T	MODEL	A	B	C
IMC-0603-01	3000	IMC-0603-01	0.039 [1.0]	0.070 [1.8]	0.039 [1.0]	IMC-0603-01	0.025 [0.64]	0.075 [1.92]	0.040 [1.02]



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