

Wirewound, Surface Mount Inductors



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

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

STANDARD ELECTRICAL SPECIFICATIONS

| IND. (nH) | TOL. | TEST FREQ. (MHz) | Q MIN. | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) ⁽¹⁾ |
|-----------|----------------|------------------|--------|----------------|--------------|--------------------------------------|
| | | 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

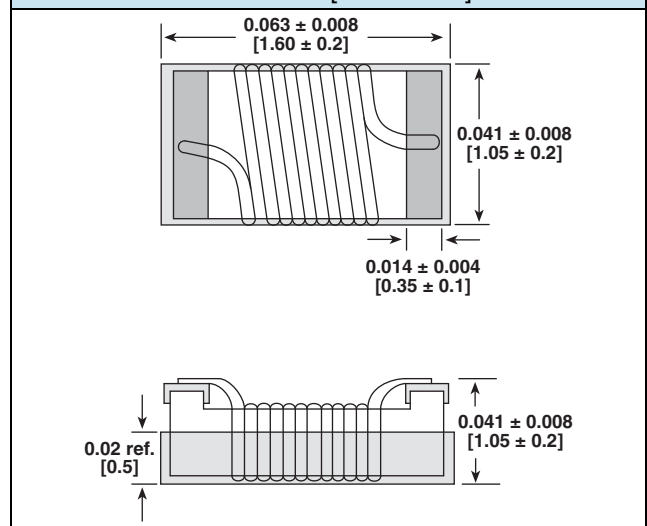
Operating Temperature: -40 °C to +125 °C

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

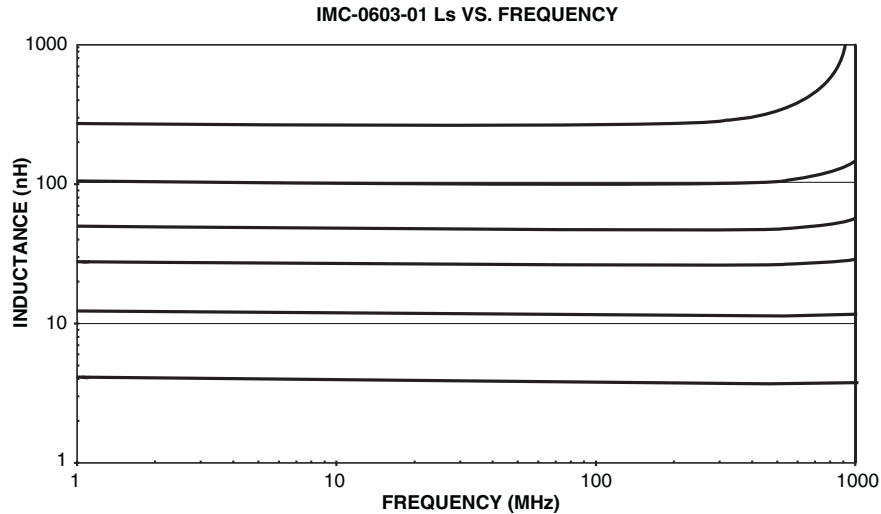
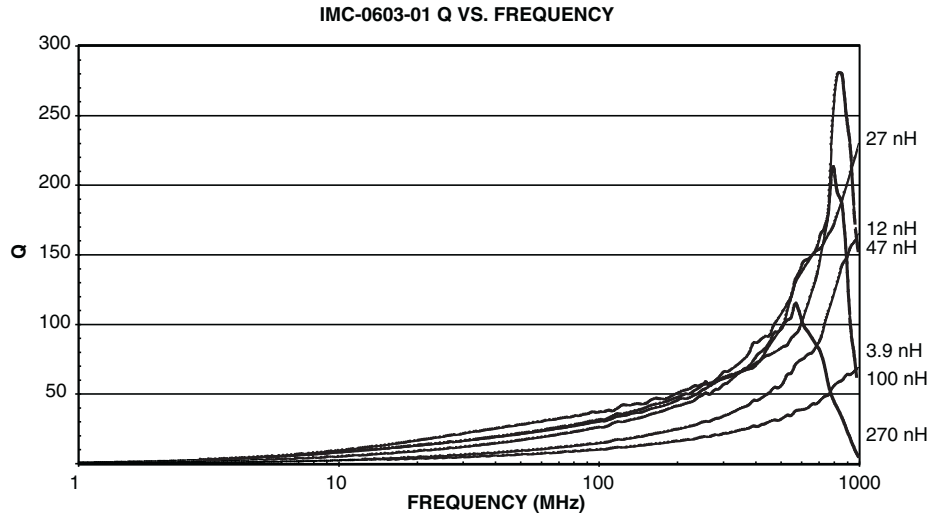
DIMENSIONS in inches [millimeters]



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

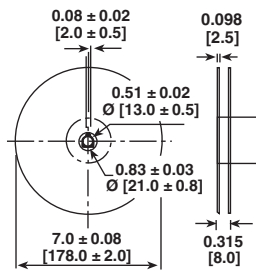
| GLOBAL PART NUMBER | | | | | | | | | | | | | | |
|--------------------|---|---|------|---|---|--------------|---|------------------|---|---|------|--------|---|---|
| I | M | C | 0 | 6 | 0 | 3 | E | R | 1 | 0 | N | J | 0 | 1 |
| PRODUCT FAMILY | | | SIZE | | | PACKAGE CODE | | INDUCTANCE VALUE | |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

PERFORMANCE GRAPHS (IMC-0603-01)

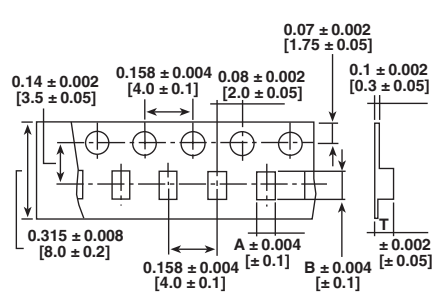


TAPE AND REEL SPECIFICATIONS in inches [millimeters]

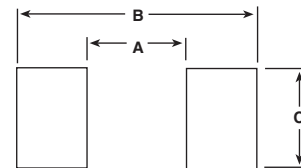
REEL DIMENSIONS



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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