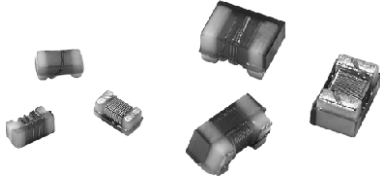


## Wirewound, Surface Mount Inductors



### 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
- Compliant to RoHS directive 2002/95/EC


**RoHS**  
COMPLIANT

### ELECTRICAL SPECIFICATIONS

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

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

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

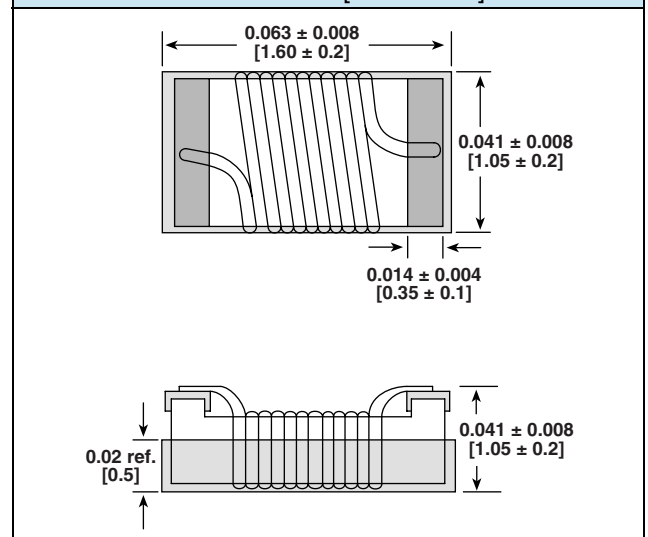
### TEST EQUIPMENT

- 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 milliohmmeter

| STANDARD ELECTRICAL SPECIFICATIONS |                |                  |        |                |              |                                      |
|------------------------------------|----------------|------------------|--------|----------------|--------------|--------------------------------------|
| IND. (nH)                          | TOL.           | TEST FREQ. (MHz) | Q MIN. | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT <sup>(1)</sup> (mA) |
|                                    |                | 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                                  |

**Note**
<sup>(1)</sup> Value obtained when current flows and temperature has risen 15 °C

### DIMENSIONS in inches [millimeters]



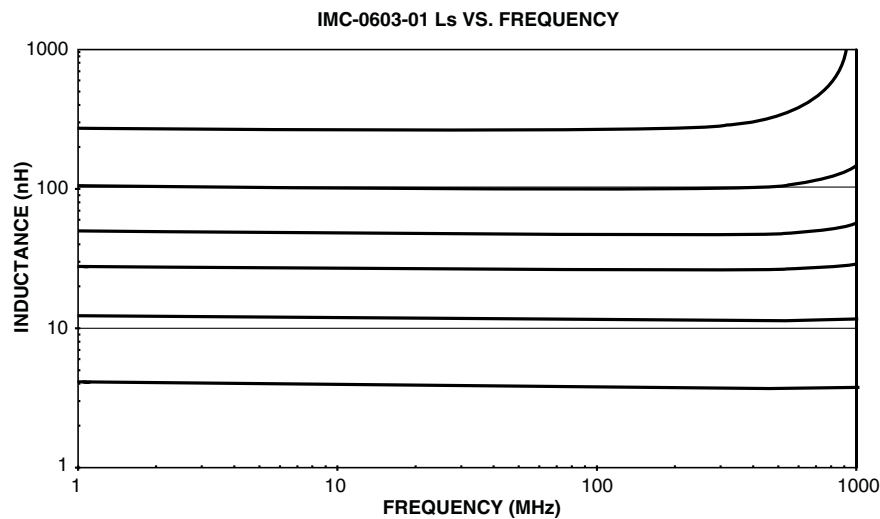
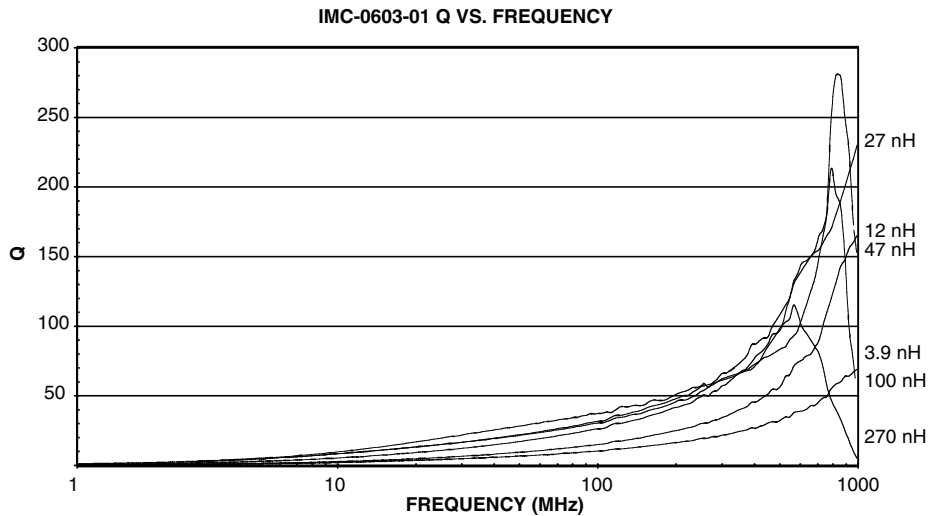
### DESCRIPTION

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

### GLOBAL PART NUMBER

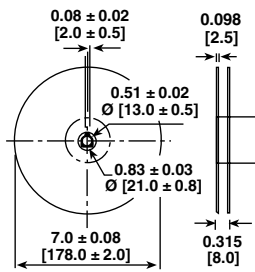
|                |   |   |      |   |   |   |              |   |                  |   |   |      |        |   |
|----------------|---|---|------|---|---|---|--------------|---|------------------|---|---|------|--------|---|
| I              | M | C | 0    | 6 | 0 | 3 | E            | R | 1          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

**PERFORMANCE GRAPHS IMC-0603-01**

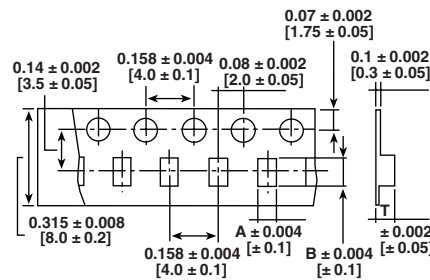


**TAPE AND REEL SPECIFICATIONS in inches [millimeters]**

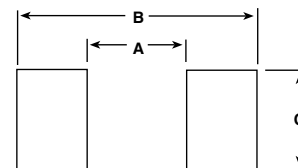
**REEL DIMENSIONS**



**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<br>[1.0] | 0.070<br>[1.8] | 0.039<br>[1.0] | IMC-0603-01 | 0.039<br>[1.0] | 0.083<br>[2.1] | 0.030<br>[0.8] |



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