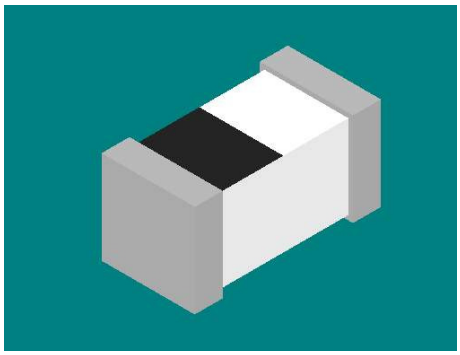
# MLCI 0603(0201) Series
# Approval sheet

DARFON
Darfon Electronics Corp.

# MLCI 0603 Series Approval Sheet

## Multi-layer Chip Inductor



## ORDERING CODE

### High Frequency MLCI Series

**HI 0603 15N J T**

❶ ❷ ❸ ❹ ❺

❶ Product ID

| Code | Definition |
|---|---|
| HI | High Frequency Inductor (Lead Free) |

❸ Inductance

| Code | Design |
|---|---|
| 1N5 | 1.5nH |
| 12N | 12nH |
| R12 | 120nH |

❺ Packaging

| Code | Packaging |
|---|---|
| B | Bulk |
| T | Tape |

❷ Dimension(LXW)

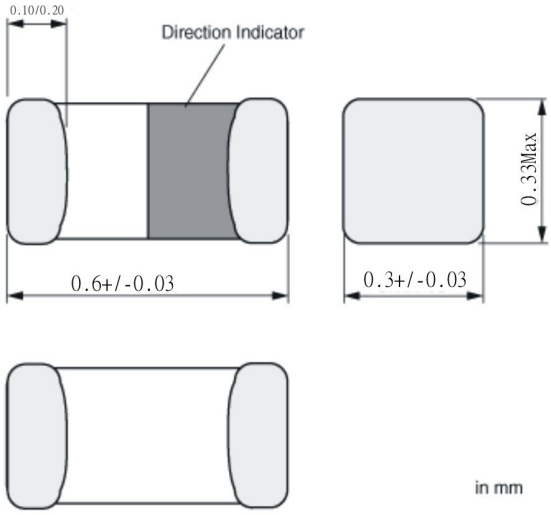
| Code | Dimension( L x W) | EIA |
|---|---|---|
| 0603 | 0.6x0.3 mm | 0201 |
| 1005 | 1.0x0.5 mm | 0402 |
| 1608 | 1.60X0.8mm | 0603 |

❹ Tolerance Code

| Code | Tolerance |
|---|---|
| D | +/- 0.1nH |
| C | +/- 0.2nH |
| S | +/- 0.3nH |
| G | +/- 2% |
| H | +/- 3% |
| J | +/- 5% |
| K | +/- 10% |

# *HI 0603 Specifications*

## 1. SHAPE AND SIZE (mm)




## 2. SPECIFICATION

### 2.1 Dimension and Inductance tolerance

| DIMENSION CODE (EIA CODE) | AVAILABLE INDUCTANCE | RATINGS | NORMAL TOLERANCE | Available Tolerance or Request |
|---|---|---|---|---|
| 0603 (0201) | 0.3 nH ~ 100 nH | 0.3 nH ~ 6.2 nH | S: +/- 0.3 nH | D: +/-0.1 nH<br>C: +/- 0.2 nH |
| | | 6.8 nH ~ 27 nH | J: +/- 5% | H: +/-3% |
| | | 33 nH ~ 100 nH | J: +/- 5% | |

## 2.2 ELECTRICAL SPECIFICATIONS {0603 (0201) SERIES}

| Ordering Code | Inductance (nH) | Available Tolerance | Q | L, Q Measureing Frequency | Self-Resonance Frequency (MHz) | | DC Resistance (Ω) | | Rated Current (mA) | Packing Amount of 7" reel |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min. | (MHz) | Min. | typ. | Max. | typ. | Max. | Pcs |
| HI06030N3□T | 0.3 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.07 | 0.03 | 250 | |
| HI06030N4□T | 0.4 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.07 | 0.04 | 250 | |
| HI06030N5□T | 0.5 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.08 | 0.05 | 250 | |
| HI06030N6□T | 0.6 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.08 | 0.05 | 250 | |
| HI06030N7□T | 0.7 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.09 | 0.06 | 250 | |
| HI06030N8□T | 0.8 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.10 | 0.07 | 250 | |
| HI06030N9□T | 0.9 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.10 | 0.07 | 250 | |
| HI06031N0□T | 1.0 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.14 | 0.09 | 250 | |
| HI06031N1□T | 1.1 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.14 | 0.09 | 250 | |
| HI06031N2□T | 1.2 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.14 | 0.09 | 250 | |
| HI06031N3□T | 1.3 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.14 | 0.10 | 250 | |
| HI06031N5□T | 1.5 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.18 | 0.10 | 230 | |
| HI06031N6□T | 1.6 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.18 | 0.12 | 230 | |
| HI06031N8□T | 1.8 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 10,000 | >13000 | 0.19 | 0.13 | 200 | |
| HI06032N0□T | 2.0 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 8,800 | >13000 | 0.20 | 0.14 | 200 | |
| HI06032N1□T | 2.1 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 8,800 | >13000 | 0.20 | 0.15 | 200 | |
| HI06032N2□T | 2.2 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 8,800 | >13000 | 0.22 | 0.15 | 200 | |
| HI06032N4□T | 2.4 | **±0.3nH**, ±0.2nH, ±0.1nH | 4 | 100 | 8,300 | 11,700 | 0.24 | 0.15 | 200 | |
| HI06032N7□T | 2.7 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 7,700 | 11,340 | 0.25 | 0.17 | 200 | |
| HI06033N0□T | 3.0 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 7,200 | 11,000 | 0.28 | 0.20 | 180 | |
| HI06033N2□T | 3.2 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 6,700 | 10,800 | 0.30 | 0.20 | 180 | |
| HI06033N3□T | 3.3 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 6,700 | 10,400 | 0.30 | 0.20 | 180 | |
| HI06033N6□T | 3.6 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 6,400 | 9,000 | 0.30 | 0.23 | 170 | |
| HI06033N9□T | 3.9 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 6,000 | 8,790 | 0.30 | 0.23 | 170 | 15,000 |
| HI06034N3□T | 4.3 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 5,700 | 8,000 | 0.40 | 0.24 | 150 | |
| HI06034N7□T | 4.7 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 5,300 | 7,750 | 0.40 | 0.26 | 150 | |
| HI06035N1□T | 5.1 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 5,000 | 7,210 | 0.40 | 0.26 | 150 | |
| HI06035N6□T | 5.6 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 4,200 | 6,680 | 0.40 | 0.32 | 150 | |
| HI06036N2□T | 6.2 | **±0.3nH**, ±0.2nH, ±0.1nH | 5 | 100 | 3,800 | 6,800 | 0.44 | 0.32 | 150 | |
| HI06036N8□T | 6.8 | **±5%**, ±3% | 5 | 100 | 3,500 | 6,800 | 0.50 | 0.34 | 150 | |
| HI06037N5□T | 7.5 | **±5%**, ±3% | 5 | 100 | 3,300 | 6,000 | 0.53 | 0.36 | 150 | |
| HI06038N2□T | 8.2 | **±5%**, ±3% | 5 | 100 | 3,200 | 5,800 | 0.55 | 0.38 | 150 | |
| HI06039N1□T | 9.1 | **±5%**, ±3% | 5 | 100 | 3,000 | 5,000 | 0.62 | 0.38 | 150 | |
| HI060310N□T | 10 | **±5%**, ±3% | 5 | 100 | 2,800 | 4,860 | 0.65 | 0.40 | 150 | |
| HI060312N□T | 12 | **±5%**, ±3% | 5 | 100 | 2,400 | 4,520 | 0.70 | 0.50 | 100 | |
| HI060315N□T | 15 | **±5%**, ±3% | 5 | 100 | 2,200 | 4,820 | 0.80 | 0.60 | 100 | |
| HI060318N□T | 18 | **±5%**, ±3% | 5 | 100 | 2,200 | 3,000 | 0.90 | 0.85 | 100 | |
| HI060322N□T | 22 | **±5%**, ±3% | 5 | 100 | 1,800 | 2,950 | 1.20 | 0.86 | 100 | |
| HI060327N□T | 27 | **±5%**, ±3% | 4 | 100 | 1,800 | 2,610 | 1.80 | 0.88 | 50 | |
| HI060333N□T | 33 | **±5%** | 4 | 100 | 1,700 | 2,210 | 2.10 | 1.05 | 50 | |
| HI060339N□T | 39 | **±5%** | 4 | 100 | 1,500 | 1,860 | 2.40 | 1.18 | 50 | |
| HI060347N□T | 47 | **±5%** | 4 | 100 | 1,300 | 1,800 | 2.80 | 1.74 | 100 | |
| HI060356N□T | 56 | **±5%** | 4 | 100 | 1,100 | 1,600 | 3.00 | 1.85 | 80 | |
| HI060368N□T | 68 | **±5%** | 4 | 100 | 1,100 | 1,500 | 2.66 | 2.30 | 80 | |
| HI060382N□T | 82 | **±5%** | 4 | 100 | 1,000 | 1,400 | 3.37 | 2.60 | 70 | |
| HI0603R10□T | 100 | **±5%** | 4 | 100 | 900 | 1,200 | 3.74 | 3.00 | 60 | |

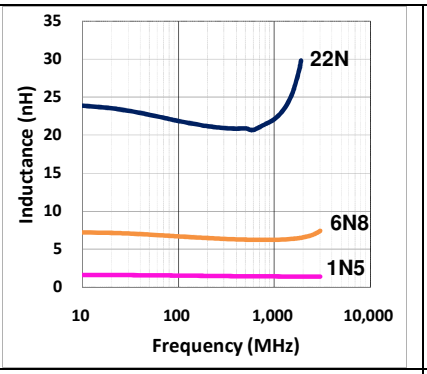
** □ Tolerance: D=±0.1nH, C=±0.2nH ,S=±0.3nH, G=±2%, H=±3%, J=±5%, K=±10%

- MEASURING EQUIPMENT: HP4287+16196C • MEASURING TEMPERATURE: 25 +/- 3 ℃
- OPERATING TEMPERATURE RANGE: -55 ℃ TO +125 ℃

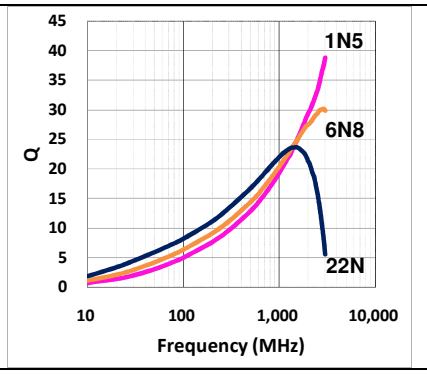
## ■L,Q vs. FREQUENCY CHARACTERISTICS

| Ordering Code | Typical Inductance(nH) | | | | | | | Typical Q | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 100 MHz | 500 MHz | 800 MHz | 900 MHz | 1.8 GHz | 2.0 GHz | 2.4 GHz | 100 MHz | 500 MHz | 800 MHz | 900 MHz | 1.8 GHz | 2.0 GHz | 2.4 GHz |
| HI06030N3□T | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 6 | 14 | 19 | 20 | 32 | 35 | 39 |
| HI06030N4□T | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 6 | 14 | 19 | 20 | 32 | 35 | 39 |
| HI06030N5□T | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 6 | 14 | 19 | 20 | 33 | 36 | 40 |
| HI06030N6□T | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 6 | 15 | 19 | 20 | 33 | 36 | 40 |
| HI06030N7□T | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 6 | 15 | 20 | 21 | 34 | 37 | 41 |
| HI06030N8□T | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 6 | 14 | 19 | 20 | 32 | 35 | 39 |
| HI06030N9□T | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 6 | 15 | 20 | 21 | 35 | 37 | 42 |
| HI06031N0□T | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 5 | 13 | 17 | 18 | 28 | 30 | 33 |
| HI06031N1□T | 1.1 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 6 | 14 | 18 | 20 | 30 | 32 | 34 |
| HI06031N2□T | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 6 | 14 | 18 | 19 | 28 | 30 | 32 |
| HI06031N3□T | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 6 | 13 | 17 | 18 | 27 | 28 | 31 |
| HI06031N5□T | 1.5 | 1.4 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 6 | 14 | 18 | 20 | 30 | 32 | 34 |
| HI06031N6□T | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 6 | 14 | 18 | 20 | 28 | 30 | 31 |
| HI06031N8□T | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 6 | 14 | 18 | 20 | 28 | 30 | 31 |
| HI06032N0□T | 2.0 | 1.9 | 1.9 | 1.9 | 2.0 | 1.9 | 2.0 | 6 | 14 | 18 | 19 | 28 | 29 | 31 |
| HI06032N1□T | 2.1 | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 6 | 13 | 17 | 18 | 26 | 28 | 30 |
| HI06032N2□T | 2.2 | 2.1 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 6 | 13 | 17 | 18 | 26 | 28 | 30 |
| HI06032N4□T | 2.4 | 2.3 | 2.2 | 2.2 | 2.3 | 2.4 | 2.5 | 6 | 14 | 18 | 20 | 28 | 29 | 31 |
| HI06032N7□T | 2.7 | 2.5 | 2.5 | 2.5 | 2.6 | 2.7 | 2.8 | 6 | 14 | 18 | 19 | 28 | 29 | 31 |
| HI06033N0□T | 3.0 | 2.8 | 2.8 | 2.8 | 2.9 | 2.9 | 3.0 | 7 | 15 | 19 | 21 | 30 | 31 | 33 |
| HI06033N2□T | 3.2 | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.2 | 6 | 14 | 19 | 20 | 29 | 30 | 32 |
| HI06033N3□T | 3.3 | 3.2 | 3.1 | 3.2 | 3.0 | 3.4 | 3.5 | 6 | 14 | 19 | 20 | 29 | 30 | 32 |
| HI06033N6□T | 3.6 | 3.4 | 3.4 | 3.4 | 3.7 | 3.7 | 3.9 | 6 | 14 | 18 | 20 | 28 | 29 | 31 |
| HI06033N9□T | 3.9 | 3.7 | 3.7 | 3.7 | 3.9 | 4.0 | 4.2 | 6 | 15 | 19 | 20 | 28 | 29 | 31 |
| HI06034N3□T | 4.3 | 4.1 | 4.1 | 4.1 | 4.4 | 4.9 | 4.8 | 6 | 14 | 18 | 19 | 27 | 28 | 29 |
| HI06034N7□T | 4.7 | 4.4 | 4.4 | 4.4 | 4.8 | 4.9 | 5.2 | 6 | 14 | 19 | 19 | 26 | 27 | 29 |
| HI06035N1□T | 5.1 | 4.9 | 4.9 | 4.9 | 5.4 | 5.6 | 6.0 | 6 | 13 | 17 | 18 | 25 | 25 | 26 |
| HI06035N6□T | 5.6 | 5.3 | 5.3 | 5.3 | 5.8 | 6.0 | 6.6 | 7 | 14 | 18 | 19 | 26 | 27 | 27 |
| HI06036N2□T | 6.2 | 6.0 | 6.0 | 6.1 | 6.9 | 7.2 | 8.1 | 6 | 14 | 18 | 19 | 26 | 26 | 30 |
| HI06036N8□T | 6.8 | 6.3 | 6.4 | 6.4 | 7.2 | 7.4 | 8.2 | 7 | 14 | 18 | 19 | 26 | 26 | 26 |
| HI06037N5□T | 7.5 | 7.1 | 7.2 | 7.2 | 8.3 | 8.7 | 9.8 | 6 | 15 | 18 | 20 | 25 | 25 | 25 |
| HI06038N2□T | 8.2 | 7.8 | 7.9 | 8.0 | 9.2 | 9.7 | 11.0 | 7 | 15 | 18 | 19 | 19 | 24 | 24 |
| HI06039N1□T | 9.1 | 8.7 | 8.8 | 8.9 | 10.8 | 11.6 | 13.9 | 6 | 13 | 16 | 17 | 21 | 20 | 18 |
| HI060310N□T | 10.0 | 9.3 | 9.5 | 9.6 | 12.0 | 13.0 | 16.1 | 6 | 13 | 16 | 17 | 20 | 20 | 18 |
| HI060312N□T | 12.0 | 11.3 | 11.5 | 11.7 | 15.4 | 17.2 | 23.2 | 7 | 13 | 16 | 17 | 18 | 17 | 14 |
| HI060315N□T | 15.0 | 14.5 | 15.1 | 15.4 | 22.4 | 26.2 | 42.3 | 7 | 15 | 18 | 19 | 19 | 17 | 11 |
| HI060318N□T | 18.0 | 17.2 | 18.1 | 18.6 | 31.1 | 39.5 | 99.3 | 7 | 13 | 16 | 16 | 14 | 11 | 5 |
| HI060322N□T | 22.0 | 21.4 | 22.8 | 23.5 | 45.5 | 64.1 | - | 7 | 13 | 16 | 16 | 12 | 8 | - |
| HI060327N□T | 27.0 | 26.6 | 29.2 | 30.6 | 108.5 | - | - | 6 | 13 | 15 | 15 | 6 | - | - |
| HI060333N□T | 33.0 | 31.9 | 34.8 | 36.0 | 119.0 | - | - | 7 | 14 | 16 | 17 | 6 | - | - |
| HI060339N□T | 39.0 | 38.2 | 42.3 | 45.6 | - | - | - | 6 | 12 | 13 | 13 | - | - | - |
| HI060347N□T | 47.0 | 44.0 | 47.0 | 49.0 | - | - | - | 6 | 11 | 12 | 11 | - | - | - |
| HI060356N□T | 56.0 | 54.0 | 61.0 | 66.0 | - | - | - | 6 | 11 | 11 | 10 | - | - | - |
| HI060368N□T | 68.0 | 66.0 | 76.0 | 82.0 | - | - | - | 6 | 11 | 11 | 10 | - | - | - |
| HI060382N□T | 82.0 | 80.0 | 97.0 | 108.0 | - | - | - | 6 | 11 | 10 | 8 | - | - | - |
| HI0603R10□T | 100.0 | 103.0 | 138.0 | 164.0 | - | - | - | 6 | 10 | 9 | 6 | - | - | - |

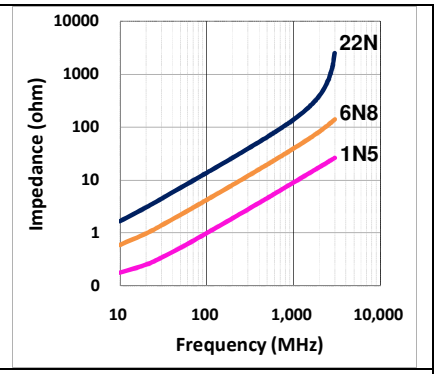
## ■TYPICAL ELECTRICAL CHARACTERISTICS




0603 L vs Frequency




0603 Q vs Frequency

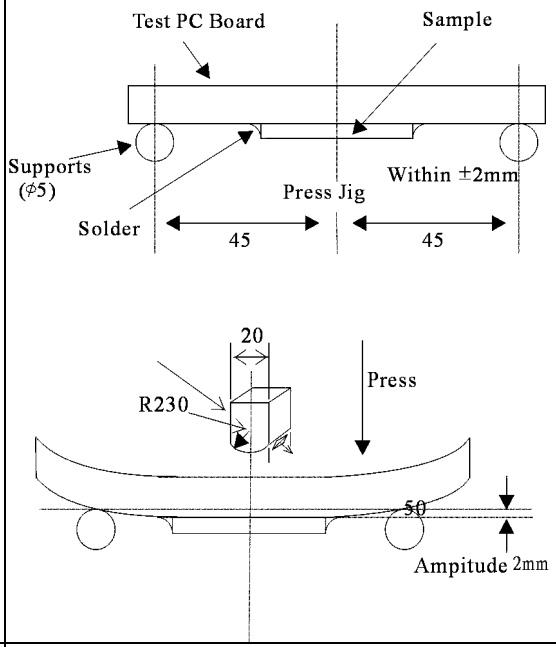



0603 Z vs Frequency

# TEST CONDITIONS AND REQUIREMENTS

| Item | Test Condition | Requirements |
|---|---|---|
| **Inductance** | a. Temperature: 25 +/- 3℃<br>b. Relative Humidity: 45 to 75%RH<br>c. Measuring equipment and fixture: 0603(0201) HP 4287+16196C | Within specified tolerance. |
| **Q Value** | a. Temperature: 25 +/- 3℃<br>b. Relative Humidity: 45 to 75%RH<br>c. Measuring equipment and fixture: 0603(0201) HP 4287+16196C | In accordance with electrical specification. |
| **DC Resistance** | a. Temperature: 25 +/- 3℃<br>b. Relative Humidity: 45 to 75%RH<br>c. Measuring equipment: HP 4338 | In accordance with electrical specification. |

# TEST CONDITIONS AND REQUIREMENTS

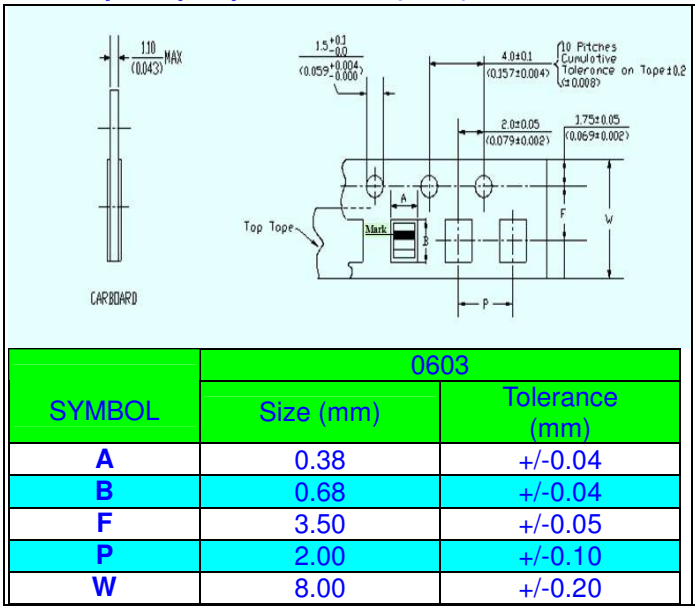
| Item | Test Condition | Requirements |
|---|---|---|
| Appearance | Inductors shall be visually inspected for visible evidence of defect. | In accordance with specification. |
| Dimension | Dimension shall be measured with caliper or micrometer | In accordance with dimension specification. |
| Solder-ability | Immerse a test sample into a methanol solution containing rosin and immerse into molten solder of 230+/-5℃ for 5+/-1 seconds. | More than 75% of the terminal electrode part shall be covered with fresh solder. |
| Bending Strength | Solder the chip to test jig then apply a force in the direction shown in below. The soldering shall be done with the reflow method and shall be conducted with care so that the soldering is uniform and free of defects such as heat shock.<br>Mounting Samples<br>  | 1. No mechanical damage shall be observed.<br>2. Rdc-value: to meet the initial Spec. |
| Resistance to Soldering Heat | Immerse a test sample into a methanol solution containing resin, preheat it at 120 to 150℃ for 1 minutes and immerse into molten solder of 270+/-5℃ for 10+/-1 second so that both terminal electrodes are completely submerged. | No visible damage<br>Inductance variation within 10%<br>Q variation within 20% |

## ■ Reliability

| Item | Test Condition | Requirements |
|---|---|---|
| Thermal Shock | Solder a test sample to printed circuit board, and conduct 5 cycles of test under the conditions shown as below.<br><br>0603 &1005 operating temp. range: -55~125℃<br>1608 operating temp. range: -40~85℃<br><br>Cycle:<br>Maximum operating temp. /(30+/-3min)<br>within 3min<br>Minimum operating temp. (30+/-3min) | No visible damage<br>Inductance variation within 10%<br>Q variation within 20% |
| High Humidity State Life Test | Keep a test sample in an atmosphere with a temperature of 40+/-2℃, 90~95%RH for 500+/-12 hours. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24+/-2 hrs of recovery under standard condition. | No visible damage.<br>Inductance variation within 10%.<br>Q variation within 20%. |
| High Humidity Load Life Test | Solder a test sample to printed circuit board then keep the test sample in an atmosphere with a temperature of 40+/-2℃, 90~95%RH for 500+/-12 hours while supplying the rated current. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24+/-2 hrs of recovery under standard condition. | No visible damage.<br>Inductance variation within 10%.<br>Q variation within 20%. |
| High Temperature State Life Test | Keep a test sample in an atmosphere with a temperature of 85+/-2℃ for 500+/-12 hours. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24+/-2 hrs of recovery under standard condition. | No visible damage.<br>Inductance variation within 10%.<br>Q variation within 20%. |
| High Temperature Load | Solder a test sample to printed circuit board then keep the test sample in an atmosphere with a temperature of 85+/-2℃ for 500+/-12 hours while supplying the rated current. After the removal from test chamber, 2 to 3 hours of recovery under standard condition, and measurement shall be made after 24+/-2 hrs of recovery under standard condition. | No visible damage.<br>Inductance variation within 10%.<br>Q variation within 20%. |

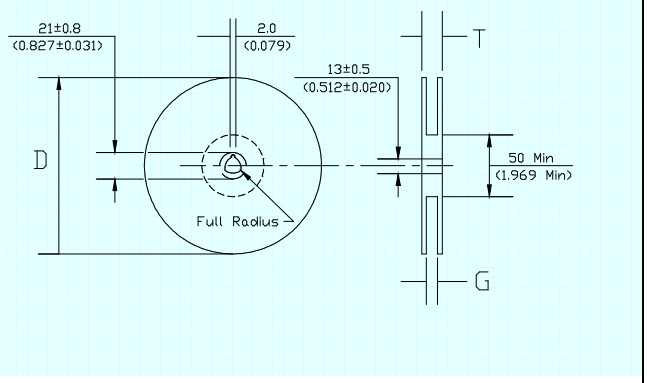
# PACKAGING

## ■ Paper tape specifications(0603)




| SYMBOL | 0603 | |
|---|---|---|
| | Size (mm) | Tolerance (mm) |
| A | 0.38 | +/-0.04 |
| B | 0.68 | +/-0.04 |
| F | 3.50 | +/-0.05 |
| P | 2.00 | +/-0.10 |
| W | 8.00 | +/-0.20 |

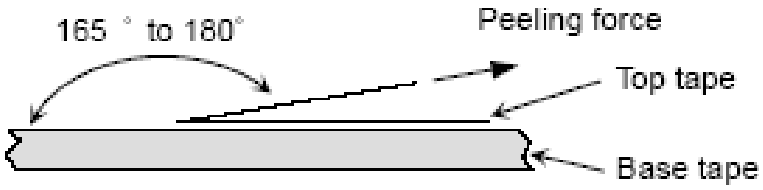
## ■ Reel specifications




| Tape Width (mm) | G (mm) | T MAX(mm) | D (mm) |
|---|---|---|---|
| 8 | 10.0+/-1.5 | 14.5 | 180 |

## ■ Peel strength of top cover tape

The peel speed shall be about 300 mm/min.
The peel strength of top cover tape shall be between 0.1 to 1.0N.




## ■ Quantity per reel

0603 (0201): 15,000 pieces / reel

## ■ The contents of a box

0603 (0201): 5 reels / box

## ■ Marking

The following item shall be marked on the reel.

a. Manufactures parts number.
b. Manufacturing date code.
c. Manufacturer name.
d. Manufactures lot number.
e. Quantity.

# CAUTIONS

## Storage

1. The chip inductor shall be packaged in carrier tapes.
2. To keep storage place temperature from +5 to 35℃, humidity from 45 to 70% RH.
3. The storage atmosphere must be free of gas containing sulfur and chlorine. Also, avoid exposing the product to saline moisture. If the product is exposed to such atmospheres, the terminals will oxidize and solder-ability will be affected.
4. The solder-ability is assured for 12 months from our final inspection date if the above storage condition is followed.

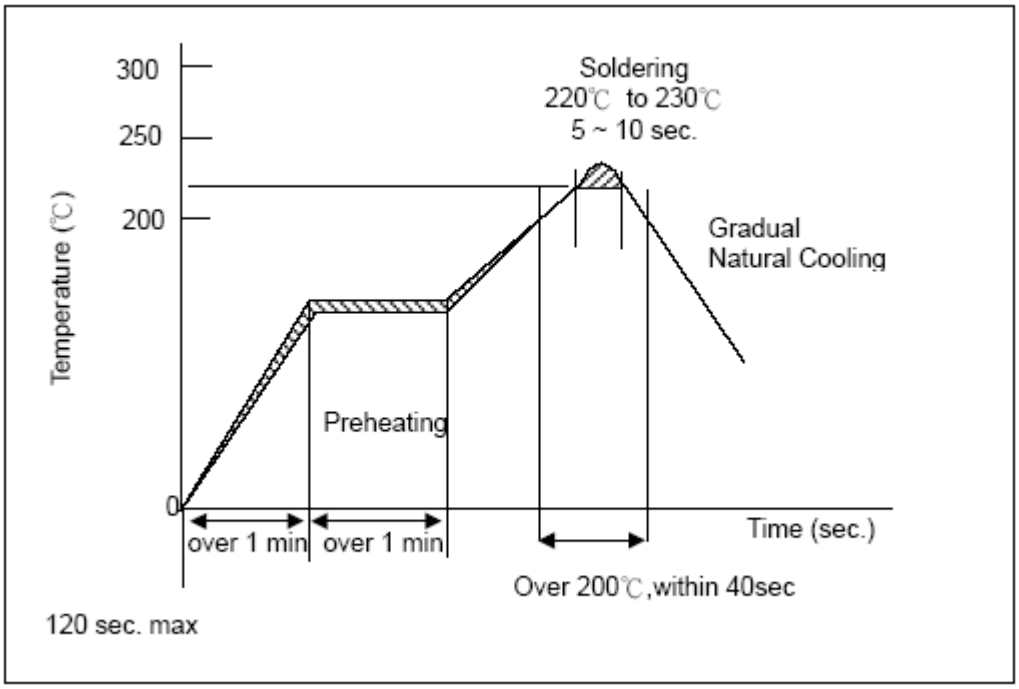
## Handling

Chip inductor should be handled with care to avoid contamination or damage. The use of vacuum pick-up or plastic tweezers is recommended for manual placement. Tape and reeled packages are suitable for automatic pick and placement machine.

## MLCI Soldering Profile

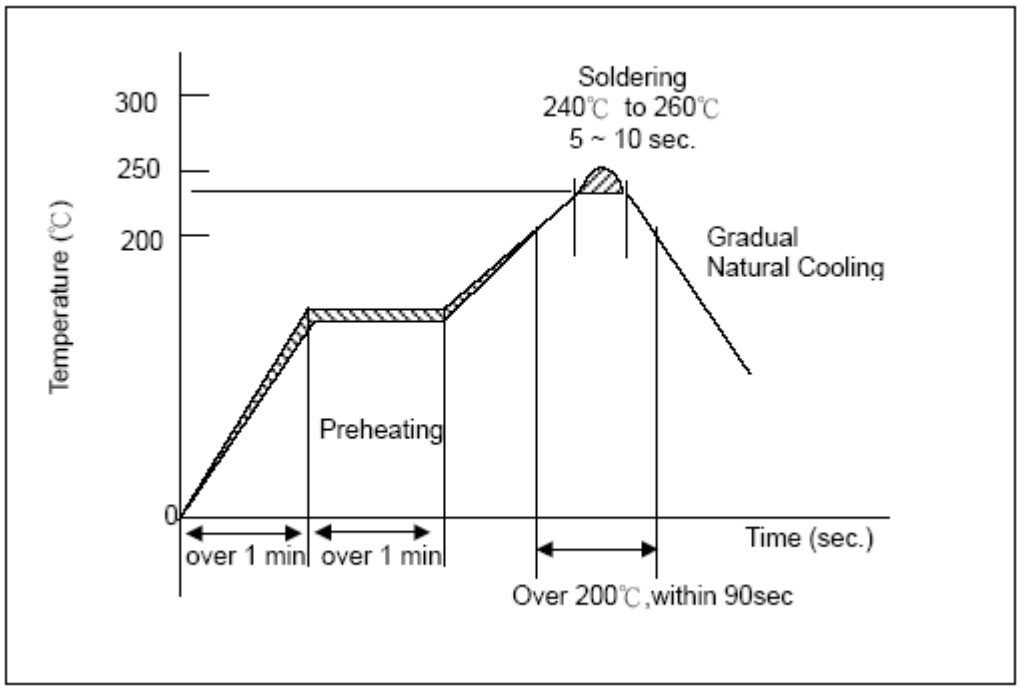
## Soldering Profile for SMT Process with SnPb Solder Paste.

**The rate of preheat should not exceed 4℃/sec and a target of 2℃/sec is preferred. Ceramic chip components should be preheated to within 100 to 130 ℃ of the soldering.**

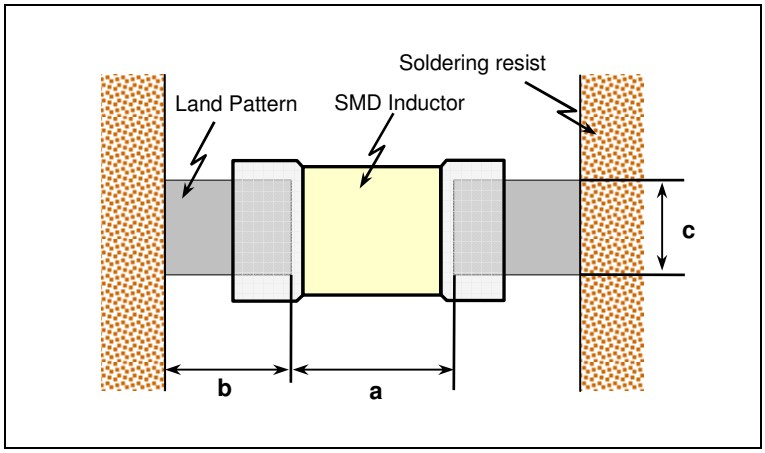


## ■ Soldering Profile for SMT Process with Lead Free Solder Paste.

**The rate of preheat should not exceed 4℃/sec and a target of 2℃/sec is preferred.**
**Ceramic chip components should be preheated to within 100 to 130 ℃ of the soldering.**




## ■ Recommended pad dimensions




| Size mm (EIA) | L x W (mm) | a (mm) | b (mm) | c (mm) |
|---|---|---|---|---|
| 0603 (0201) | 0.6*0.3 | 0.15 to 0.35 | 0.2 to 0.3 | 0.25 to 0.3 |