

Multilayer Chip Ceramic Inductor



◆ Features

- 1、 Monolithic Structure for high reliability
- 2、 High self-resonant frequency
- 3、 Excellent solderability and high heat resistance
- 4、 RoHS Compliant.



◆ Application

- 1、 RF Circuit of in telecommunication and other Equipments

◆ PRODUCT IDENTIFICATION

SCC 0603 C 1N0 S S P
(1) (2) (3) (4) (5) (6) (7)

- (1) Series Type
- (2) Chip Size (mm) :Length X Width
- (3) Material Code
- (4) Inductance: 1N0=1nH; 10N=10nH
R10=100nH
- (5) Inductance Tolerance: B=±0.1; C=±0.2; S=±0.3;
G=±2%; H=±3%; J=±5%
- (6) Company Code
- (7) Packaging:P–Embossed paper tape, 7" reel
E- Embossed plastic tape, 7" reel

◆ Dimensions Unit: mm

| Size(EIA) | L | W | T | E |
|-----------|-----------|-----------|-----------|-----------|
| | 0.60±0.05 | 0.30±0.05 | 0.30±0.05 | 0.20±0.10 |



◆ Specifications

| Part Number | Inductance (nH) | Min. Quality Factor (Q) | L, Q Test Freq. L/Q(MHz) | Typical Q @ Freq. (GHz) | | | | | Min. Self-resonant Frequency (MHz) | Max. DC Resistance (Ω) | Max. Rated Current (mA) |
|-----------------------|-----------------|-------------------------|--------------------------|-------------------------|-----|-----|-----|-----|------------------------------------|------------------------|-------------------------|
| | | | | 0.5 | 0.8 | 1.8 | 2.0 | 2.4 | | | |
| | | | | Q | | | | | | | |
| SCC0603 Series | | | | | | | | | | | |
| SCC0603C0N6◇SP | 0.6 | 13 | 500 | >24 | >32 | >54 | >57 | >65 | 10000 | 0.06 | 600 |
| SCC0603C0N7◇SP | 0.7 | 13 | 500 | >24 | >32 | >54 | >57 | >65 | 10000 | 0.06 | 550 |
| SCC0603C0N8◇SP | 0.8 | 13 | 500 | >24 | >32 | >54 | >57 | >65 | 10000 | 0.07 | 550 |
| SCC0603C0N9◇SP | 0.9 | 13 | 500 | >24 | >32 | >54 | >57 | >65 | 10000 | 0.07 | 550 |
| SCC0603C1N0◇SP | 1.0 | 13 | 500 | 24 | 32 | 54 | 57 | 65 | 10000 | 0.08 | 520 |
| SCC0603C1N1◇SP | 1.1 | 13 | 500 | 19 | 26 | 45 | 47 | 55 | 10000 | 0.11 | 440 |
| SCC0603C1N2◇SP | 1.2 | 13 | 500 | 19 | 25 | 43 | 44 | 52 | 10000 | 0.12 | 420 |
| SCC0603C1N3◇SP | 1.3 | 13 | 500 | 19 | 25 | 40 | 42 | 47 | 10000 | 0.12 | 420 |
| SCC0603C1N4◇SP | 1.4 | 13 | 500 | 19 | 24 | 39 | 41 | 47 | 10000 | 0.11 | 440 |
| SCC0603C1N5◇SP | 1.5 | 13 | 500 | 19 | 24 | 39 | 41 | 46 | 10000 | 0.12 | 420 |
| SCC0603C1N6◇SP | 1.6 | 13 | 500 | 19 | 24 | 39 | 41 | 46 | 10000 | 0.13 | 410 |
| SCC0603C1N7◇SP | 1.7 | 13 | 500 | 19 | 24 | 39 | 41 | 46 | 10000 | 0.15 | 380 |
| SCC0603C1N8◇SP | 1.8 | 13 | 500 | 19 | 24 | 39 | 41 | 46 | 10000 | 0.15 | 380 |
| SCC0603C1N9◇SP | 1.9 | 13 | 500 | 18 | 24 | 38 | 40 | 45 | 10000 | 0.18 | 350 |
| SCC0603C2N0◇SP | 2.0 | 13 | 500 | 17 | 24 | 38 | 39 | 44 | 10000 | 0.23 | 300 |
| SCC0603C2N1◇SP | 2.1 | 13 | 500 | 17 | 24 | 37 | 39 | 44 | 10000 | 0.24 | 300 |
| SCC0603C2N2◇SP | 2.2 | 13 | 500 | 17 | 24 | 38 | 40 | 43 | 10000 | 0.25 | 290 |
| SCC0603C2N3◇SP | 2.3 | 13 | 500 | 17 | 24 | 37 | 39 | 43 | 10000 | 0.20 | 330 |
| SCC0603C2N4◇SP | 2.4 | 13 | 500 | 17 | 23 | 36 | 38 | 42 | 10000 | 0.22 | 310 |
| SCC0603C2N5◇SP | 2.5 | 13 | 500 | 17 | 23 | 35 | 36 | 40 | 9600 | 0.20 | 330 |
| SCC0603C2N6◇SP | 2.6 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 9400 | 0.20 | 330 |
| SCC0603C2N7◇SP | 2.7 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 9200 | 0.22 | 310 |
| SCC0603C2N8◇SP | 2.8 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 8900 | 0.24 | 300 |
| SCC0603C2N9◇SP | 2.9 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 8800 | 0.26 | 280 |

◆ Specifications

| Part Number | Inductance (nH) | Min. Quality Factor (Q) | L, Q Test Freq. L/Q(MHz) | Typical Q @ Freq. (GHz) | | | | | Min. Self- resonant Frequency (MHz) | Max. DC Resistance (Ω) | Max. Rated Current (mA) |
|-----------------------|--------------------|----------------------------------|-----------------------------------|-------------------------|-----|-----|-----|-----|--|---------------------------------------|----------------------------------|
| | | | | 0.5 | 0.8 | 1.8 | 2.0 | 2.4 | | | |
| | | | | Q | | | | | | | |
| SCC0603 Series | | | | | | | | | | | |
| SCC0603C2N9◇SP | 2.9 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 8800 | 0.26 | 280 |
| SCC0603C3N0◇SP | 3.0 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 8600 | 0.26 | 280 |
| SCC0603C3N1◇SP | 3.1 | 13 | 500 | 17 | 22 | 34 | 35 | 39 | 8500 | 0.28 | 270 |
| SCC0603C3N2◇SP | 3.2 | 13 | 500 | 17 | 22 | 33 | 35 | 39 | 8200 | 0.28 | 270 |
| SCC0603C3N3◇SP | 3.3 | 13 | 500 | 18 | 23 | 34 | 36 | 40 | 8100 | 0.30 | 270 |
| SCC0603C3N4◇SP | 3.4 | 13 | 500 | 17 | 23 | 33 | 35 | 39 | 8000 | 0.30 | 270 |
| SCC0603C3N5◇SP | 3.5 | 13 | 500 | 17 | 23 | 33 | 35 | 39 | 7900 | 0.34 | 250 |
| SCC0603C3N6◇SP | 3.6 | 13 | 500 | 16 | 23 | 33 | 35 | 39 | 7700 | 0.38 | 240 |
| SCC0603C3N7◇SP | 3.7 | 13 | 500 | 16 | 23 | 33 | 35 | 38 | 7600 | 0.40 | 230 |
| SCC0603C3N8◇SP | 3.8 | 13 | 500 | 16 | 22 | 33 | 35 | 38 | 7500 | 0.42 | 230 |
| SCC0603C3N9◇SP | 3.9 | 13 | 500 | 16 | 22 | 33 | 35 | 38 | 7400 | 0.42 | 230 |
| SCC0603C4N3◇SP | 4.3 | 13 | 500 | 16 | 21 | 32 | 34 | 37 | 6800 | 0.44 | 220 |
| SCC0603C4N7◇SP | 4.7 | 13 | 500 | 16 | 22 | 33 | 35 | 38 | 6200 | 0.45 | 220 |
| SCC0603C5N1◇SP | 5.1 | 13 | 500 | 17 | 22 | 34 | 36 | 38 | 5900 | 0.46 | 210 |
| SCC0603C5N6◇SP | 5.6 | 13 | 500 | 16 | 21 | 33 | 34 | 37 | 5500 | 0.46 | 210 |
| SCC0603C6N2◇SP | 6.2 | 13 | 500 | 18 | 23 | 34 | 35 | 37 | 5100 | 0.48 | 210 |
| SCC0603C6N8◇SP | 6.8 | 13 | 500 | 17 | 22 | 32 | 33 | 35 | 4900 | 0.50 | 200 |
| SCC0603C7N5◇SP | 7.5 | 13 | 500 | 16 | 21 | 31 | 33 | 34 | 4700 | 0.50 | 200 |
| SCC0603C8N2◇SP | 8.2 | 13 | 500 | 16 | 21 | 31 | 32 | 34 | 4300 | 0.56 | 190 |
| SCC0603C9N1◇SP | 9.1 | 13 | 500 | 16 | 20 | 30 | 31 | 32 | 4100 | 0.72 | 170 |
| SCC0603C10N◇SP | 10 | 13 | 500 | 16 | 20 | 28 | 29 | 31 | 3800 | 0.80 | 160 |
| SCC0603C12N◇SP | 12 | 13 | 500 | 16 | 20 | 27 | 28 | 28 | 3400 | 0.80 | 160 |
| SCC0603C15N◇SP | 15 | 13 | 500 | 15 | 19 | 24 | 24 | 23 | 2600 | 0.85 | 160 |
| SCC0603C18N◇SP | 18 | 13 | 500 | 15 | 19 | 23 | 24 | 22 | 2300 | 1.00 | 140 |

◆ Specifications

| Part Number | Inductance (nH) | Min. Quality Factor (Q) | L, Q Test Freq. L/Q(MHz) | Typical Q @ Freq. (GHz) | | | | | Min. Self-resonant Frequency (MHz) | Max. DC Resistance (Ω) | Max. Rated Current (mA) |
|-----------------------|-----------------|-------------------------|--------------------------|-------------------------|-----|-----|-----|-----|------------------------------------|---------------------------------|-------------------------|
| | | | | 0.5 | 0.8 | 1.8 | 2.0 | 2.4 | | | |
| | | | | Q | | | | | | | |
| SCC0603 Series | | | | | | | | | | | |
| SCC0603C22N◇SP | 22 | 13 | 500 | 15 | 19 | 22 | 23 | 20 | 1900 | 1.20 | 130 |
| SCC0603C27N◇SP | 27 | 13 | 500 | 15 | 19 | 15 | 13 | 8 | 1800 | 1.60 | 120 |
| SCC0603C33N◇SP | 33 | 11 | 300 | 14 | 15 | 8 | 5 | - | 1800 | 2.20 | 110 |
| SCC0603C39N◇SP | 39 | 11 | 300 | 14 | 15 | 6 | - | - | 1600 | 2.30 | 100 |
| SCC0603C47N◇SP | 47 | 11 | 300 | 14 | 15 | - | - | - | 1500 | 2.60 | 100 |
| SCC0603C56N◇SP | 56 | 11 | 300 | 13 | 13 | - | - | - | 1400 | 2.80 | 80 |
| SCC0603C68N◇SP | 68 | 11 | 300 | 13 | 11 | - | - | - | 1200 | 3.20 | 80 |
| SCC0603C82N◇SP | 82 | 10 | 300 | 12 | 10 | - | - | - | 1100 | 3.80 | 70 |
| SCC0603CR10◇SP | 100 | 10 | 300 | 12 | 10 | - | - | - | 1000 | 4.00 | 60 |
| SCC0603CR12◇SP | 120 | 9 | 300 | 12 | 8 | - | - | - | 1000 | 5.00 | 50 |

Note: ◇: Please specify the inductance tolerance. For $L \leq 6.2\text{nH}$, choose $B = \pm 0.1\text{nH}$, $C = \pm 0.2\text{nH}$ or $S = \pm 0.3\text{nH}$; For $L > 6.2\text{nH}$, choose $G = \pm 2\%$, $H = \pm 3\%$ or $J = 5\%$.

◆ General Technical Data

| | |
|------------------------------------|---------------------------|
| Operating Temperature Range | -55°C ~ +125°C |
| Storage Condition | Less than 40°C and 70% RH |
| Soldering Method | Reflow or Wave Soldering |

◆ Composition / Information on Ingredients

Product Structure: See Fig.1, Fig. 2 and Fig. 3



Fig.1 Shape

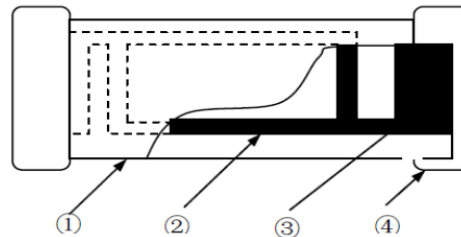


Fig.2 Body Structure

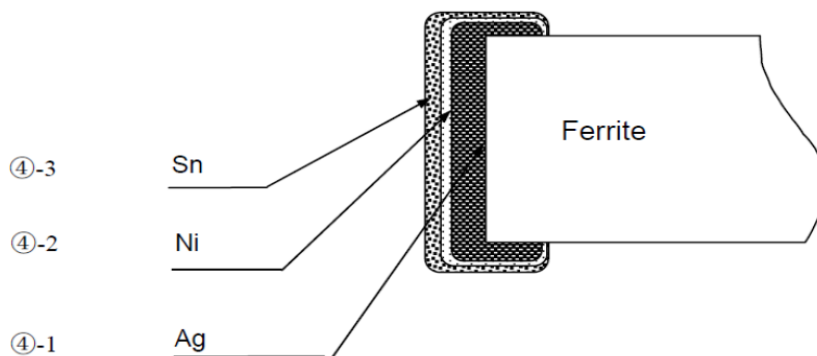


Fig. 3 Structure of Electro-plating

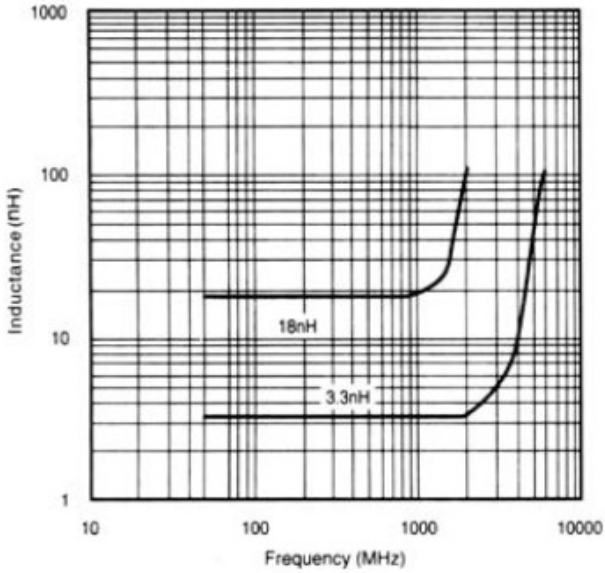
| Composition/Information on the Components | | |
|---|-----------------------------------|---|
| Code | Material | Main Components |
| ① | Ceramic | Boron Silicate, Al ₂ O ₃ , Secret |
| ② | Inner Coil | Silver (Ag) |
| ③ | Pull-out Electrode | Silver (Ag) |
| ④-1 | Terminal Electrode | Silver (Ag) |
| ④-2 | Electrode-plating: Nickel plating | Nickel (Ni) |
| ④-3 | Electrode-plating: Sn plating | Tin (Sn) |

| Compositions Wt Rate (Wt%) of Material | | |
|--|---------------|------------|
| Material | Wt Rate (Wt%) | CAS No. |
| Boron Silicate | 51~65 | 65997-18-4 |
| Al ₂ O ₃ | 14~17 | 1344-28-1 |
| Secret | 0~5 | - |
| Ag | 9~29 | 7440-22-4 |
| Nickel | 1.8~2.3 | 7440-02-0 |
| Tin | 3.6~4.7 | 7440-31-5 |
| | | |
| | | |
| | | |

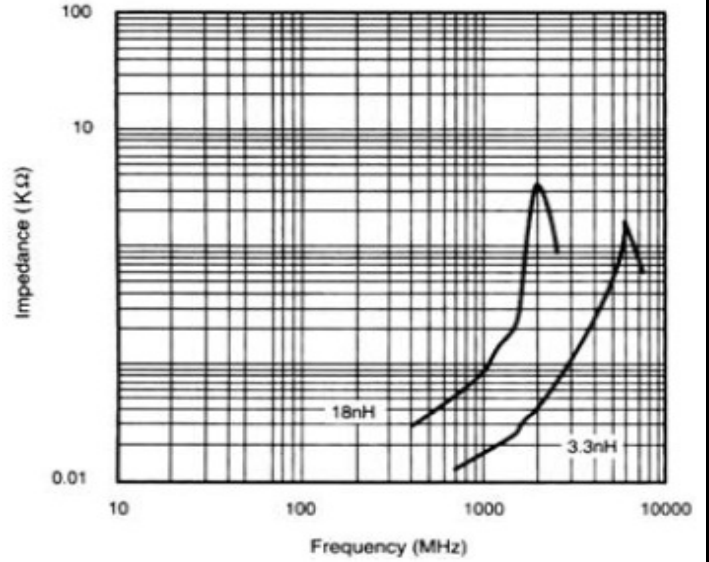
◆ TYPICAL ELECTRICAL CHARACTERISTICS

SCC0603 Series

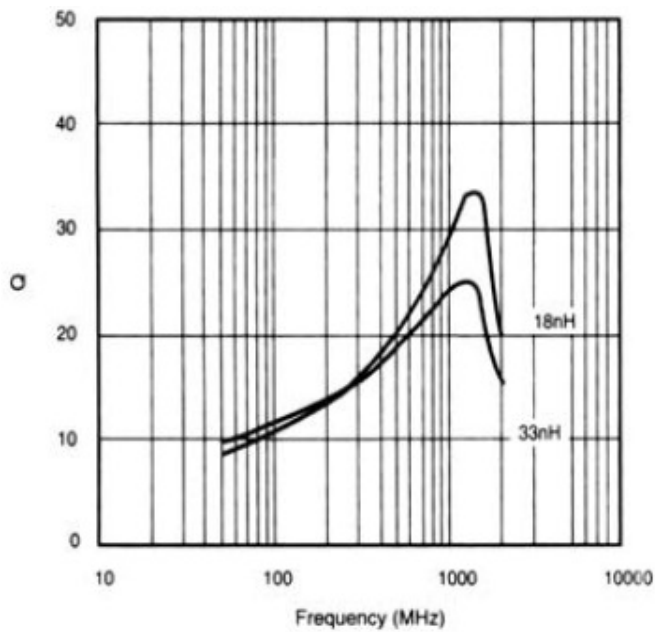
Inductance vs. Frequency Characteristics



Impedance vs. Frequency Characteristics

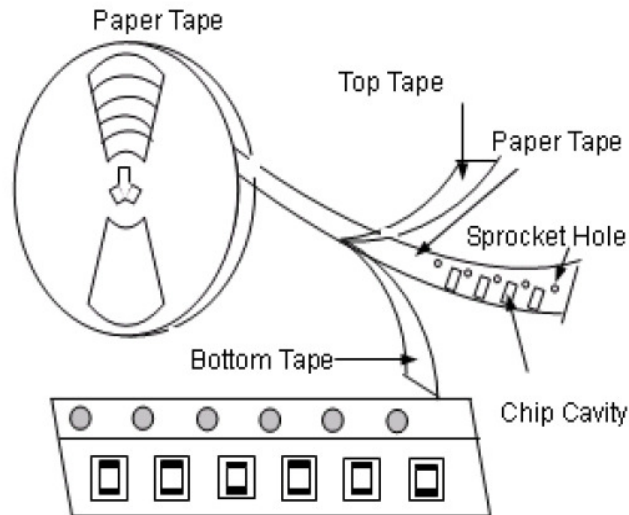


Q vs. Frequency Characteristics



◆ Packaging

(1) Taping Drawings (Unit: mm)



Remark: The sprocket holes are to the right as the tape is pulled toward the user.

(2) Taping Dimensions (Unit: mm)

Sprocket Hole $\Phi 1.5 (+0.1, 0)$



Paper Tape

| Type | A | B | P | T max | Quantity |
|------------|---------------|---------------|----------------|-------|----------|
| 0603(0201) | 0.4 ± 0.1 | 0.7 ± 0.1 | 2.0 ± 0.05 | 0.55 | 15K |

(3) Reel Dimensions (Unit: mm)



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Fixed Inductors](#) category:

Click to view products by [Sunltech](#) manufacturer:

Other Similar products are found below :

[MLZ1608M6R8WTD25](#) [MLZ1608N6R8LT000](#) [MLZ1608N3R3LTD25](#) [MLZ1608N3R3LT000](#) [MLZ1608N150LT000](#)

[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)

[MLZ1608N1R5LT000](#) [B82432C1333K000](#) [PCMB053T-1R0MS](#) [PCMB053T-1R5MS](#) [PCMB104T-1R5MS](#) [CR32NP-100KC](#) [CR32NP-](#)

[151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#)

[CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#)

[MGDQ4-00004-P](#) [MGDU1-00016-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#) [PE-51506NL](#) [PE-53601NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-](#)

[62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HC8-1R2-R](#)