

**NEW!**

Chip Inductors - 0201CS Series (0503)

- 0201 size – World's smallest wirewound inductor
- 26 inductance values from 0.5 to 14 nH
- High Q values – up to 64 at 1.7 GHz!

Request free evaluation samples by contacting Coilcraft or visiting www.coilcraft.com.

| Part number ¹ | Inductance ² (nH) | Percent tolerance | 900 MHz | | 1.7 GHz | | SRF typ ⁴ (GHz) | DCR max ⁵ (Ohms) | I _{rms} ⁶ (mA) |
|--------------------------|---------------------------------|----------------------|---------|--------------------|---------|--------------------|-------------------------------|--------------------------------|---------------------------------------|
| | | | L typ | Q typ ³ | L typ | Q typ ³ | | | |
| 0201CS-0N5XKL_ | 0.5 | 10 | 0.50 | 29 | 0.49 | 43 | >26 | 0.015 | 1400 |
| 0201CS-0N6XKL_ | 0.6 | 10 | 0.58 | 31 | 0.58 | 51 | >26 | 0.024 | 1150 |
| 0201CS-1N2XJL_ | 1.2 | 5 | 1.16 | 42 | 1.16 | 60 | 24.6 | 0.027 | 1050 |
| 0201CS-1N3XJL_ | 1.3 | 5 | 1.24 | 38 | 1.24 | 57 | 26.0 | 0.034 | 960 |
| 0201CS-1N4XJL_ | 1.4 | 5 | 1.35 | 27 | 1.34 | 37 | 25.8 | 0.068 | 680 |
| 0201CS-1N5XJL_ | 1.5 | 5 | 1.47 | 28 | 1.47 | 40 | 25.8 | 0.086 | 640 |
| 0201CS-2N3XJL_ | 2.3 | 5 | 2.28 | 45 | 2.28 | 64 | 16.5 | 0.039 | 860 |
| 0201CS-2N4XJL_ | 2.4 | 5 | 2.36 | 35 | 2.36 | 53 | 19.1 | 0.062 | 730 |
| 0201CS-2N5XJL_ | 2.5 | 5 | 2.50 | 31 | 2.49 | 44 | 19.3 | 0.124 | 520 |
| 0201CS-3N3XJL_ | 3.3 | 5 | 3.31 | 42 | 3.32 | 62 | 14.8 | 0.051 | 700 |
| 0201CS-3N7XJL_ | 3.7 | 5 | 3.65 | 39 | 3.66 | 58 | 13.0 | 0.064 | 680 |
| 0201CS-3N8XJL_ | 3.8 | 5 | 3.81 | 38 | 3.81 | 60 | 13.0 | 0.102 | 570 |
| 0201CS-3N9XJL_ | 3.9 | 5 | 3.89 | 35 | 3.89 | 50 | 14.6 | 0.128 | 520 |
| 0201CS-4N8XJL_ | 4.8 | 5 | 4.83 | 34 | 4.83 | 50 | 11.2 | 0.063 | 730 |
| 0201CS-5N2XJL_ | 5.2 | 5 | 5.21 | 36 | 5.21 | 55 | 12.7 | 0.126 | 520 |
| 0201CS-5N5XJL_ | 5.5 | 5 | 5.49 | 35 | 5.49 | 50 | 11.0 | 0.200 | 400 |
| 0201CS-6N7XJL_ | 6.7 | 5 | 6.71 | 40 | 6.72 | 59 | 10.1 | 0.094 | 590 |
| 0201CS-7N0XJL_ | 7.0 | 5 | 6.97 | 39 | 6.97 | 60 | 10.7 | 0.149 | 440 |
| 0201CS-7N5XJL_ | 7.5 | 5 | 7.44 | 36 | 7.46 | 50 | 11.8 | 0.238 | 360 |
| 0201CS-8N7XJL_ | 8.7 | 5 | 8.68 | 38 | 8.74 | 59 | 9.4 | 0.139 | 500 |
| 0201CS-9N0XJL_ | 9.0 | 5 | 9.02 | 42 | 9.04 | 63 | 9.7 | 0.173 | 400 |
| 0201CS-9N4XJL_ | 9.4 | 5 | 9.38 | 36 | 9.39 | 51 | 8.9 | 0.218 | 370 |
| 0201CS-9N6XJL_ | 9.6 | 5 | 9.62 | 38 | 9.64 | 53 | 9.1 | 0.276 | 320 |
| 0201CS-11NXJL_ | 11.0 | 5 | 11.11 | 40 | 11.15 | 62 | 8.5 | 0.197 | 340 |
| 0201CS-12NXJL_ | 12.0 | 5 | 12.15 | 39 | 12.20 | 56 | 7.8 | 0.248 | 330 |
| 0201CS-14NXJL_ | 14.0 | 5 | 14.13 | 37 | 14.37 | 51 | 7.2 | 0.278 | 320 |

1. When ordering, please specify **termination** and **packaging** codes:

0201CS-14NXJL W

Termination: L = RoHS compliant silver-platinum-glass frit.
Special order: S = non-RoHS tin-lead (63/37).

Packaging: W = 7" machine-ready reel. EIA-481 punched paper tape (2000 parts per full reel).

U = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added (\$25 charge), use code letter W instead.

- Inductance measured at 250 MHz using a Coilcraft SMD-F fixture in an Agilent/HP 4286 impedance analyzer with Coilcraft-provided correlation pieces.
- Q measured using an Agilent/HP 4291A with an Agilent/HP 16197 test fixture.
- SRF measured using an Agilent/HP 8722ES network analyzer and a test fixture with a 0.010" air gap.
- DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.
- Current that causes a 15°C temperature rise from 25°C ambient. See Qualification Standards section for environmental and test data. Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Designer's Kit C368 contains 20 each of all values

Core material Ceramic

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 0.14 – 0.23 mg

Ambient temperature –40°C to +125°C with I_{rms} current, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°C.
Packaging: –55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Mean Time Between Failures (MTBF) 1 billion hours

Packaging 2000 per 7" reel. Paper tape: 8 mm wide, 0.5 mm thick, 2 mm pocket spacing

PCB washing Only pure water or alcohol recommended

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information.

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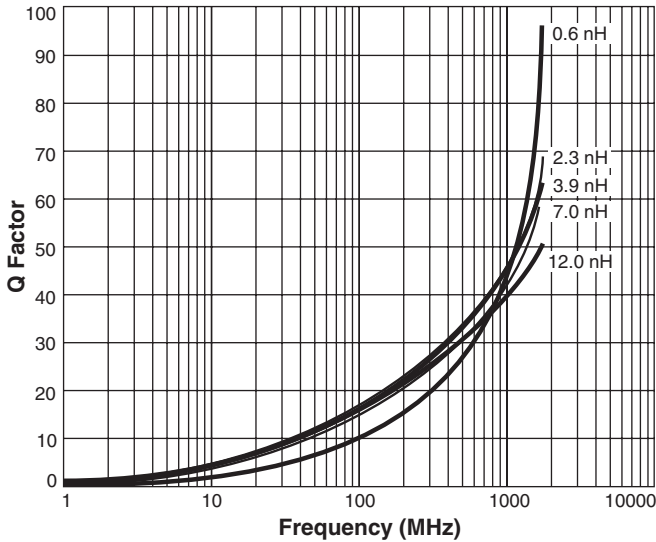


NEW!

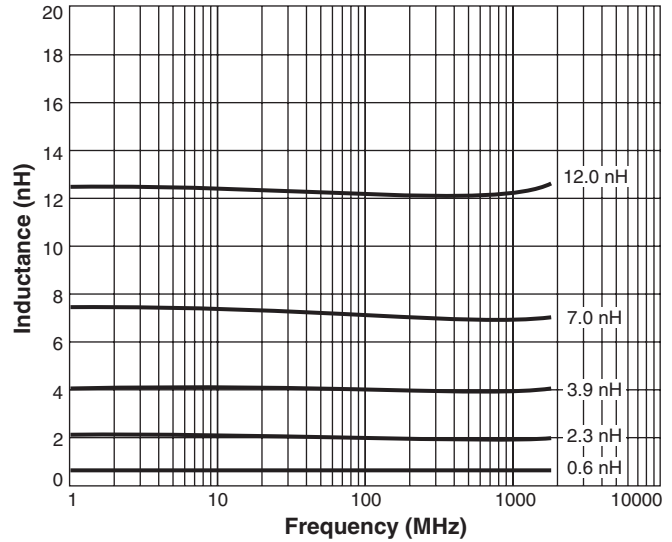
0201CS Series (0503)

S-Parameter files
ON OUR WEB SITE OR CD
SPICE models
ON OUR WEB SITE OR CD

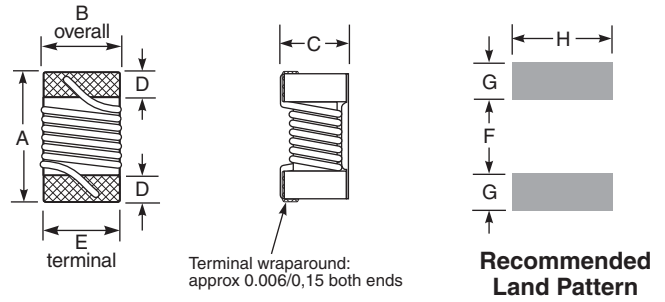
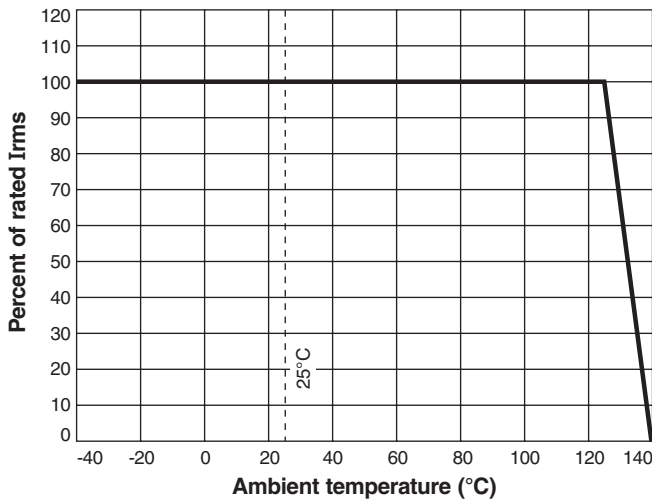
Typical Q vs Frequency



Typical L vs Frequency



Irms Derating



| A max | B max | C max | D | E | F | G | H |
|-------|-------|-------|-------|-------|-------|-------|--------------|
| 0.022 | 0.014 | 0.018 | 0.004 | 0.010 | 0.009 | 0.007 | 0.013 inches |
| 0,56 | 0,36 | 0,46 | 0,10 | 0,25 | 0,23 | 0,18 | 0,33 mm |



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