

**NEW!**

Chip Inductors - 0302CS Series (0805)

- 0302 size – 20% smaller than our 0402CS inductors
- 34 inductance values from 0.67 to 34 nH
- High Q values – up to 131 at 2.4 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 | | 2.4 GHz | | SRF typ ⁴ (GHz) | DCR max ⁵ (Ohms) | Irms ⁶ (mA) |
|--------------------------|---------------------------------|----------------------|---------|--------------------|---------|--------------------|---------|--------------------|----------------------------------|-----------------------------------|---------------------------|
| | | | L typ | Q typ ³ | L typ | Q typ ³ | L typ | Q typ ³ | | | |
| 0302CS-N67XKL_ | 0.67 | 10 | 0.66 | 42 | 0.66 | 56 | 0.67 | 70 | >26 | 0.021 | 1600 |
| 0302CS-1N7XJL_ | 1.7 | 5 | 1.7 | 57 | 1.7 | 78 | 1.7 | 95 | 16.14 | 0.038 | 1140 |
| 0302CS-1N9XJL_ | 1.9 | 5 | 1.9 | 42 | 1.9 | 65 | 1.9 | 83 | 16.06 | 0.065 | 910 |
| 0302CS-2N1XJL_ | 2.1 | 5 | 2.1 | 38 | 2.1 | 57 | 2.1 | 72 | 15.94 | 0.082 | 830 |
| 0302CS-3N0XJL_ | 3.0 | 5 | 3.0 | 56 | 3.0 | 92 | 3.0 | 131 | 15.10 | 0.060 | 950 |
| 0302CS-3N3XJL_ | 3.3 | 5 | 3.3 | 56 | 3.3 | 88 | 3.3 | 129 | 11.50 | 0.060 | 950 |
| 0302CS-3N5XJL_ | 3.5 | 5 | 3.5 | 60 | 3.5 | 84 | 3.5 | 110 | 11.53 | 0.070 | 870 |
| 0302CS-3N8XJL_ | 3.8 | 5 | 3.8 | 60 | 3.8 | 89 | 3.8 | 105 | 10.67 | 0.090 | 830 |
| 0302CS-4N0XJL_ | 4.0 | 5 | 4.0 | 52 | 4.0 | 80 | 4.1 | 98 | 11.21 | 0.100 | 760 |
| 0302CS-4N7XJL_ | 4.7 | 5 | 4.6 | 55 | 4.6 | 88 | 4.7 | 120 | 12.07 | 0.074 | 830 |
| 0302CS-5N1XJL_ | 5.1 | 5 | 5.1 | 62 | 5.1 | 92 | 5.2 | 118 | 9.65 | 0.074 | 830 |
| 0302CS-6N0XJL_ | 6.0 | 5 | 6.0 | 58 | 6.0 | 82 | 6.2 | 105 | 8.60 | 0.140 | 700 |
| 0302CS-6N3XJL_ | 6.3 | 5 | 6.3 | 56 | 6.3 | 80 | 6.5 | 100 | 9.34 | 0.155 | 620 |
| 0302CS-6N5XJL_ | 6.5 | 5 | 6.5 | 56 | 6.5 | 80 | 6.8 | 100 | 8.19 | 0.200 | 620 |
| 0302CS-7N0XJL_ | 7.0 | 5 | 7.0 | 62 | 7.1 | 84 | 7.2 | 112 | 8.50 | 0.103 | 760 |
| 0302CS-7N2XJL_ | 7.2 | 5 | 7.2 | 60 | 7.2 | 82 | 7.4 | 110 | 9.12 | 0.112 | 690 |
| 0302CS-7N4XJL_ | 7.4 | 5 | 7.3 | 60 | 7.4 | 82 | 7.6 | 110 | 7.98 | 0.112 | 690 |
| 0302CS-8N3XJL_ | 8.3 | 5 | 8.2 | 58 | 8.3 | 80 | 8.5 | 104 | 8.19 | 0.150 | 590 |
| 0302CS-9N2XJL_ | 9.2 | 5 | 8.9 | 58 | 9.0 | 83 | 9.2 | 120 | 7.92 | 0.115 | 690 |
| 0302CS-10NXJL_ | 10.0 | 5 | 10.0 | 58 | 10.1 | 91 | 10.2 | 119 | 7.45 | 0.140 | 620 |
| 0302CS-11NXJL_ | 11.0 | 5 | 11.0 | 57 | 11.2 | 83 | 11.6 | 105 | 6.85 | 0.210 | 590 |
| 0302CS-12NXJL_ | 12.0 | 5 | 12.0 | 59 | 12.6 | 88 | 12.7 | 110 | 6.86 | 0.170 | 560 |
| 0302CS-13NXJL_ | 13.0 | 5 | 13.0 | 53 | 13.3 | 83 | 13.8 | 104 | 6.94 | 0.230 | 480 |
| 0302CS-15NXJL_ | 15.0 | 5 | 15.0 | 55 | 15.4 | 84 | 15.9 | 106 | 6.20 | 0.174 | 560 |
| 0302CS-16NXJL_ | 16.0 | 5 | 16.0 | 54 | 16.4 | 85 | 17.0 | 102 | 6.13 | 0.210 | 480 |
| 0302CS-17NXJL_ | 17.0 | 5 | 16.9 | 52 | 17.4 | 82 | 18.2 | 118 | 6.26 | 0.280 | 440 |
| 0302CS-18NXJL_ | 18.0 | 5 | 17.9 | 55 | 18.5 | 80 | 19.3 | 111 | 6.03 | 0.350 | 390 |
| 0302CS-19NXJL_ | 19.0 | 5 | 18.9 | 53 | 19.6 | 85 | 20.5 | 104 | 5.79 | 0.260 | 480 |
| 0302CS-20NXJL_ | 20.0 | 5 | 19.9 | 56 | 20.2 | 88 | 20.8 | 112 | 5.68 | 0.300 | 430 |
| 0302CS-21NXJL_ | 21.0 | 5 | 20.9 | 53 | 22.0 | 82 | 24.1 | 95 | 5.16 | 0.370 | 370 |
| 0302CS-22NXJL_ | 22.0 | 5 | 22.0 | 52 | 23.1 | 79 | 25.2 | 94 | 4.95 | 0.420 | 340 |
| 0302CS-23NXJL_ | 23.5 | 5 | 23.5 | 54 | 24.6 | 84 | 27.4 | 92 | 5.18 | 0.400 | 430 |
| 0302CS-29NXJL_ | 29.0 | 5 | 29.0 | 51 | 30.5 | 75 | 33.0 | 90 | 4.83 | 0.470 | 330 |
| 0302CS-34NXJL_ | 34.0 | 5 | 34.0 | 55 | 35.5 | 78 | 38.1 | 94 | 4.45 | 0.530 | 310 |

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

0302CS-34NXJ L 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.

2. Inductance measured at 250 MHz using a Coilcraft SMD-F fixture in an Agilent/HP 4286 impedance analyzer with Coilcraft-provided correlation pieces.

3. Q measured using an Agilent/HP 4287A with an Agilent/HP 16193 test fixture.

4. SRF measured using an Agilent/HP 8722ES network analyzer and a test fixture with a 0.017" air gap.

5. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.

6. Current that causes a 30°C temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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

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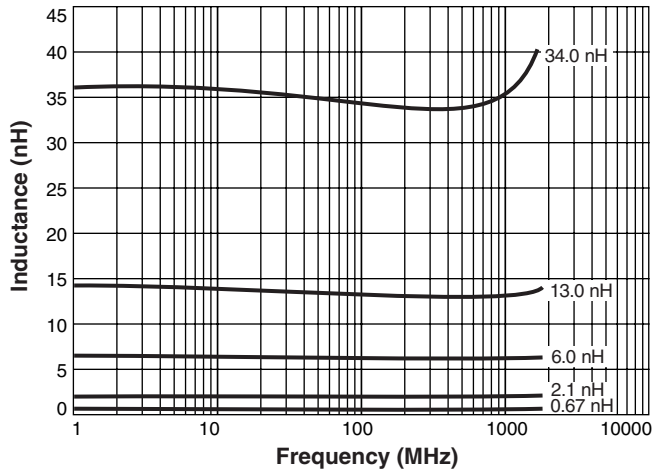
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



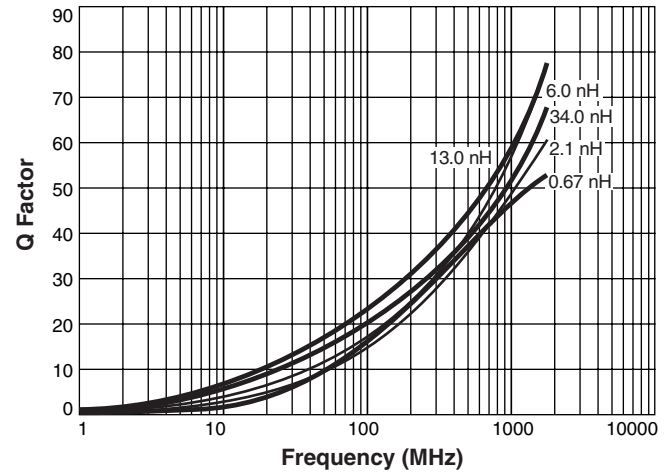
NEW!

0302CS Series (0805)

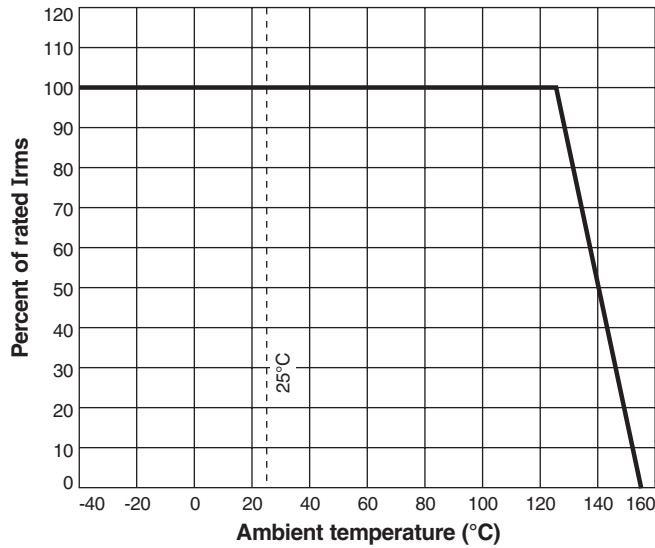
Typical L vs Frequency



Typical Q vs Frequency



Irms Derating



Designer's Kit C370 contains 20 each of all values

Core material Ceramic

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

Weight 0.4 – 0.5 mg

Ambient temperature -40°C to +125°C with I_{rms} current, +125°C to +155°C with derated current

Storage temperature Component: -40°C to +155°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

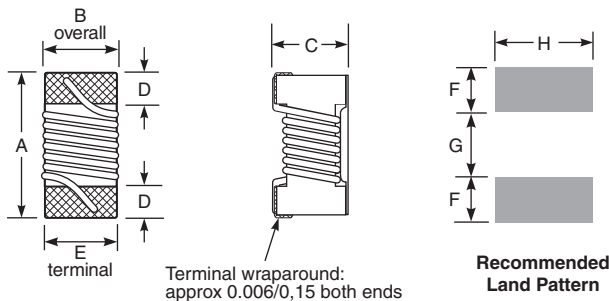
Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

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



| A max | B max | C max | D | E | F | G | H |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.034 | 0.018 | 0.018 | 0.006 | 0.015 | 0.010 | 0.014 | 0.021 |
| 0,86 | 0,46 | 0,45 | 0,20 | 0,38 | 0,25 | 0,36 | 0,53 |



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