

**NEW!**

# Chip Inductors - 0201DS Series (0503)

- 0201 size; world's smallest wirewound inductor
- 30 inductance values from 0.5 to 14 nH

Request free evaluation samples by contacting Coilcraft or visiting [www.coilcraft.com](http://www.coilcraft.com).

Part number <sup>1</sup>	Inductance <sup>2</sup> (nH)	Percent tolerance	900 MHz		1.7 GHz		SRF typ <sup>4</sup> (GHz)	DCR max <sup>5</sup> (Ohms)	I <sub>rms</sub> <sup>6</sup> (mA)
			L typ	Q typ <sup>3</sup>	L typ	Q typ <sup>3</sup>			
0201DS-0N5XKL_	0.5	<b>10</b>	0.50	29	0.49	43	23.5	0.020	1250
0201DS-0N6XKL_	0.6	<b>10</b>	0.58	31	0.58	51	24.5	0.030	1000
0201DS-1N2XJL_	1.2	<b>5</b>	1.16	42	1.16	60	17.9	0.042	870
0201DS-1N3XJL_	1.3	<b>5</b>	1.24	38	1.24	57	17.6	0.048	820
0201DS-1N4XJL_	1.4	<b>5</b>	1.35	27	1.34	37	17.0	0.080	630
0201DS-1N5XJL_	1.5	<b>5</b>	1.47	28	1.47	40	17.0	0.090	600
0201DS-2N3XJL_	2.3	<b>5</b>	2.28	45	2.28	64	16.5	0.070	670
0201DS-2N4XJL_	2.4	<b>5</b>	2.36	35	2.36	53	13.0	0.082	620
0201DS-2N5XJL_	2.5	<b>5</b>	2.50	31	2.49	44	12.5	0.165	440
0201DS-3N3XJL_	3.3	<b>5</b>	3.31	42	3.32	62	12.8	0.080	630
0201DS-3N4XJL_	3.4	<b>5</b>	3.38	42	3.42	62	12.7	0.080	630
0201DS-3N5XJL_	3.5	<b>5</b>	3.41	44	3.45	64	12.4	0.080	630
0201DS-3N6XJL_	3.6	<b>5</b>	3.53	40	3.57	61	12.5	0.105	550
0201DS-3N7XJL_	3.7	<b>5</b>	3.65	39	3.66	58	10.6	0.105	550
0201DS-3N8XJL_	3.8	<b>5</b>	3.81	38	3.81	60	10.2	0.180	420
0201DS-3N9XJL_	3.9	<b>5</b>	3.89	35	3.89	50	11.2	0.240	360
0201DS-4N8XJL_	4.8	<b>5</b>	4.83	34	4.83	50	11.0	0.096	570
0201DS-5N2XJL_	5.2	<b>5</b>	5.21	36	5.21	55	10.0	0.170	430
0201DS-5N5XJL_	5.5	<b>5</b>	5.49	35	5.49	50	9.5	0.285	330
0201DS-6N7XJL_	6.7	<b>5</b>	6.71	40	6.72	59	6.8	0.150	460
0201DS-7N0XJL_	7.0	<b>5</b>	6.97	39	6.97	60	6.7	0.210	390
0201DS-7N5XJL_	7.5	<b>5</b>	7.44	36	7.46	50	6.8	0.340	300
0201DS-8N2XJL_	8.2	<b>5</b>	8.14	37	8.22	53	6.4	0.270	340
0201DS-8N7XJL_	8.7	<b>5</b>	8.68	38	8.74	59	6.3	0.350	300
0201DS-9N0XJL_	9.0	<b>5</b>	9.02	42	9.04	63	6.4	0.350	300
0201DS-9N4XJL_	9.4	<b>5</b>	9.38	36	9.39	51	6.4	0.400	280
0201DS-9N6XJL_	9.6	<b>5</b>	9.62	38	9.64	53	6.2	0.400	280
0201DS-11NXJL_	11.0	<b>5</b>	11.11	40	11.15	62	5.7	0.400	280
0201DS-12NXJL_	12.0	<b>5</b>	12.15	39	12.20	56	5.6	0.360	300
0201DS-14NXJL_	14.0	<b>5</b>	14.13	37	14.37	51	5.1	0.440	270

1. When ordering, please specify **packaging** code:

↓  
**0201DS-14NXJLW**

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

**Core material** Ceramic

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

**Weight** 0.14 – 0.23 mg

**Ambient temperature** –40°C to +125°C with I<sub>rms</sub> current, +125°C to +140°C with derated current

**Storage temperature** Component: –40°C to +140°C.  
Packaging: –40°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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

One per billion hours / one billion hours, calculated per Telcordia SR-332

**Packaging** 2000 per 7" reel. Paper tape: 8 mm wide, 0.6 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.

Document 699-1 Revised 01/08/09

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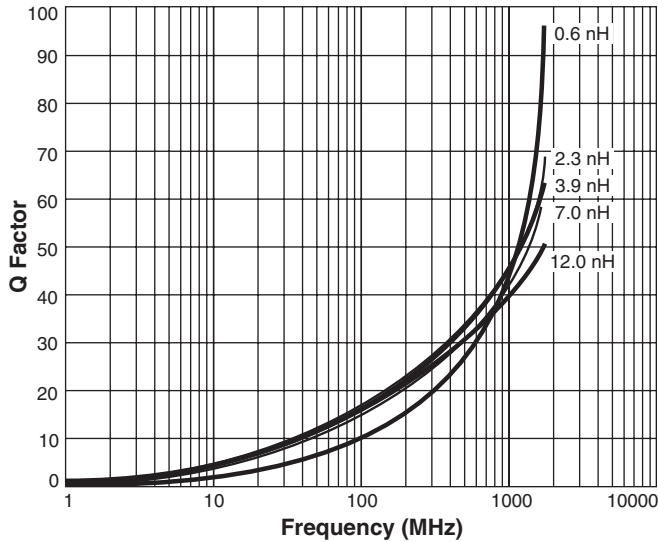
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



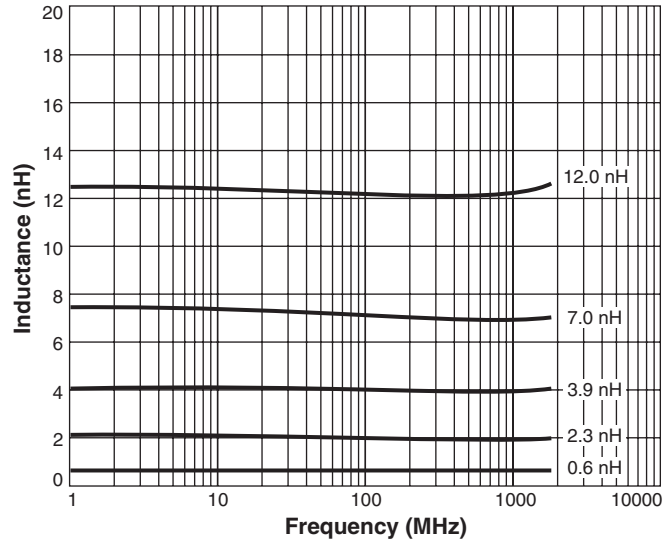
**NEW!**

# 0201DS Chip Inductor Series (0503)

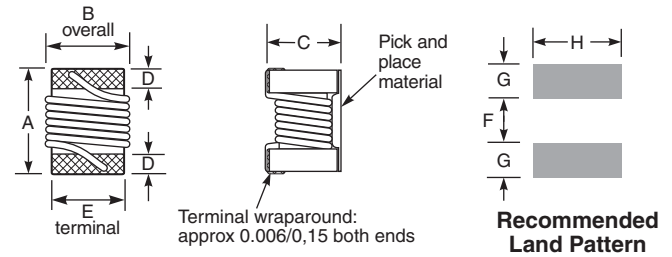
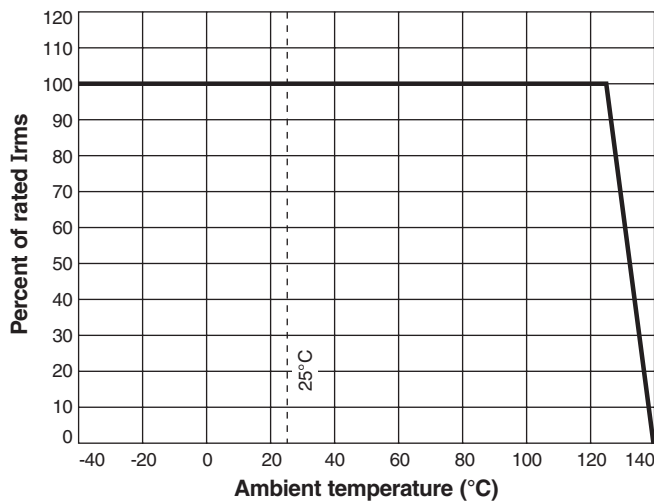
## Typical Q vs Frequency



## Typical L vs Frequency



## Irms Derating



A max	B max	C max	D	E	F	G	H	
0.023	0.018	0.0177	0.004	0.015	0.009	0.007	0.018	inches
0,58	0,46	0,45	0,10	0,38	0,23	0,18	0,46	mm



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Document 699-2 Revised 01/08/09

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