



Chip Inductors - 0201DS Series (0603)

Improved version now available.

These parts are not recommended for new designs. They are replaced by a new halogen-free version, which is identical in form, fit and function and offers 20 new values. See www.coilcraft.com/0201ds.cfm.

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

Part number ¹	Inductance ² (nH)	Percent tolerance	900 MHz		1.7 GHz		SRF typ ⁴ (GHz)	DCR max ⁵ (Ohms)	Irms ⁶ (mA)
			L typ	Q typ ³	L typ	Q typ ³			
0201DS-0N5XKL_	0.5	10	0.50	29	0.49	43	23.5	0.020	1250
0201DS-0N6XKL_	0.6	10	0.58	31	0.58	51	24.5	0.030	1000
0201DS-1N2XJL_	1.2	5	1.16	42	1.16	60	17.9	0.042	870
0201DS-1N3XJL_	1.3	5	1.24	38	1.24	57	17.6	0.048	820
0201DS-1N4XJL_	1.4	5	1.35	27	1.34	37	17.0	0.080	630
0201DS-1N5XJL_	1.5	5	1.47	28	1.47	40	17.0	0.090	600
0201DS-2N2XJL_	2.2	5	2.23	32	2.23	32	16.7	0.070	700
0201DS-2N3XJL_	2.3	5	2.28	45	2.28	64	16.5	0.070	670
0201DS-2N4XJL_	2.4	5	2.36	35	2.36	53	13.0	0.082	620
0201DS-2N5XJL_	2.5	5	2.50	31	2.49	44	12.5	0.165	440
0201DS-3N3XJL_	3.3	5	3.31	42	3.32	62	12.8	0.080	630
0201DS-3N4XJL_	3.4	5	3.38	42	3.42	62	12.7	0.080	630
0201DS-3N5XJL_	3.5	5	3.41	44	3.45	64	12.4	0.080	630
0201DS-3N6XJL_	3.6	5	3.53	40	3.57	61	12.5	0.105	550
0201DS-3N7XJL_	3.7	5	3.65	39	3.66	58	10.6	0.105	550
0201DS-3N8XJL_	3.8	5	3.81	38	3.81	60	10.2	0.180	420
0201DS-3N9XJL_	3.9	5	3.89	35	3.89	50	11.2	0.240	360
0201DS-4N8XJL_	4.8	5	4.83	34	4.83	50	11.0	0.096	570
0201DS-5N2XJL_	5.2	5	5.21	36	5.21	55	10.0	0.170	430
0201DS-5N5XJL_	5.5	5	5.49	35	5.49	50	9.5	0.285	330
0201DS-6N7XJL_	6.7	5	6.71	40	6.72	59	6.8	0.150	460
0201DS-7N0XJL_	7.0	5	6.97	39	6.97	60	6.7	0.210	390
0201DS-7N5XJL_	7.5	5	7.44	36	7.46	50	6.8	0.340	300
0201DS-8N2XJL_	8.2	5	8.14	37	8.22	53	6.4	0.270	340
0201DS-8N7XJL_	8.7	5	8.68	38	8.74	59	6.3	0.350	300
0201DS-9N0XJL_	9.0	5	9.02	42	9.04	63	6.4	0.350	300
0201DS-9N4XJL_	9.4	5	9.38	36	9.39	51	6.4	0.400	280
0201DS-9N6XJL_	9.6	5	9.62	38	9.64	53	6.2	0.400	280
0201DS-11NXJL_	11.0	5	11.11	40	11.15	62	5.7	0.400	280
0201DS-12NXJL_	12.0	5	12.15	39	12.20	56	5.6	0.360	300
0201DS-13NXJL_	13.0	5	13.12	38	13.22	52	6.7	0.440	270
0201DS-14NXJL_	14.0	5	14.13	37	14.37	51	5.1	0.440	270

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

0201DS-14NXJLW

Termination: L = RoHS compliant silver-platinum-glass frit.

E = Halogen free component. RoHS compliant matte tin over nickel over silver terminations.

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 4291A with an Agilent/HP 16197 test fixture.
4. SRF measured using an Agilent/HP 8722ES network analyzer and a test fixture with a 0.010" air gap.
5. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.
6. 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

Environmental RoHS compliant, halogen free optional

Terminations RoHS compliant silver-platinum-glass frit.

Weight 0.14 – 0.23 mg

Ambient temperature –40°C to +125°C with Irms current, +125°C to +140°C with derated current

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

Tape and reel 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 Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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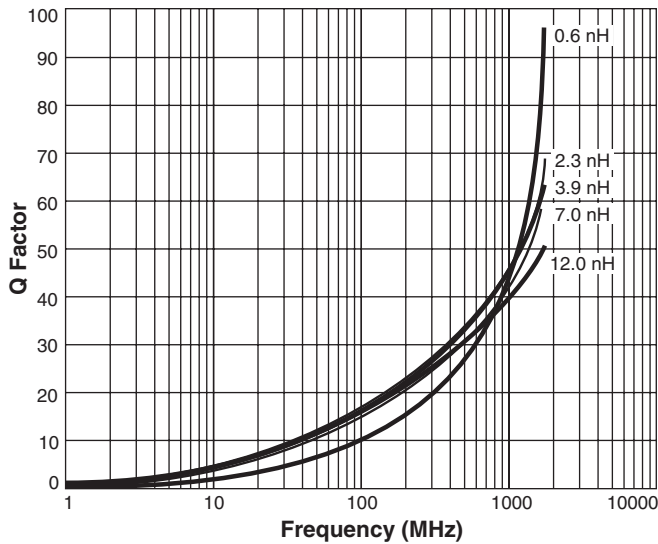
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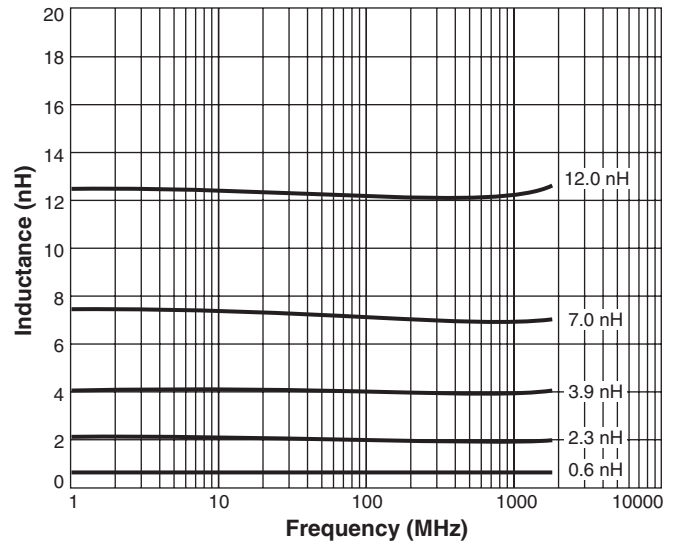


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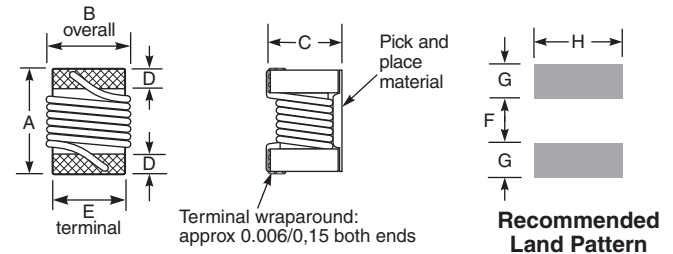
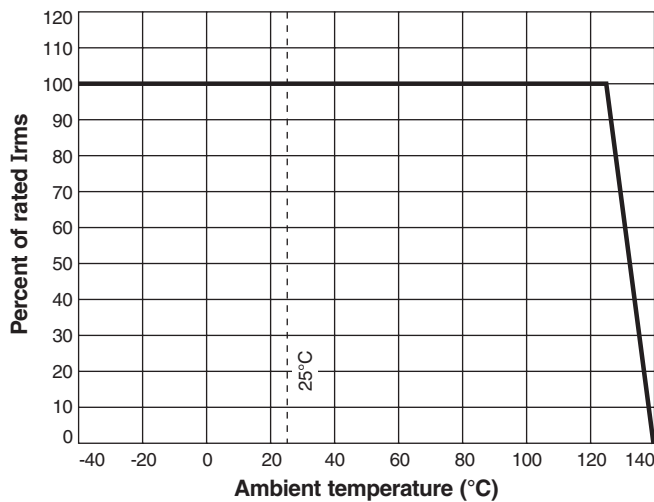
Typical Q vs Frequency



Typical L vs Frequency



Irms Derating



Amax	Bmax	Cmax	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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