Chip Inductors - 0201DS Series (0603)

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

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

Part number[1]	Inductance[2] (nH)	Percent tolerance	900 MHz L typ	900 MHz Q typ[3]	1.7 GHz L typ	1.7 GHz Q typ[3]	SRF typ[4] (GHz)	DCR max[5] (Ohms)	Irms[6] (mA)
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.

Designer's Kit C425 contains 20 each of all values
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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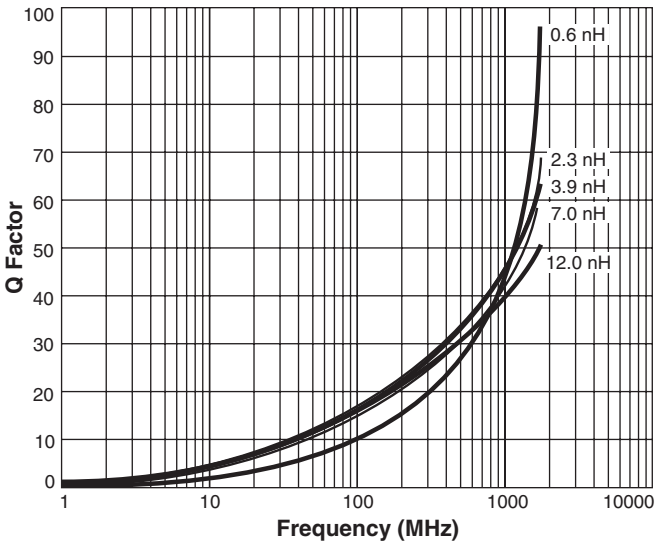
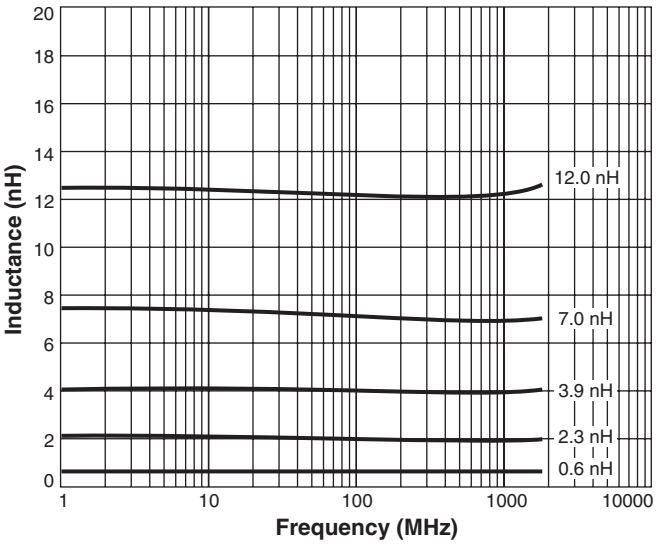
0201DS Chip Inductor Series (0603)

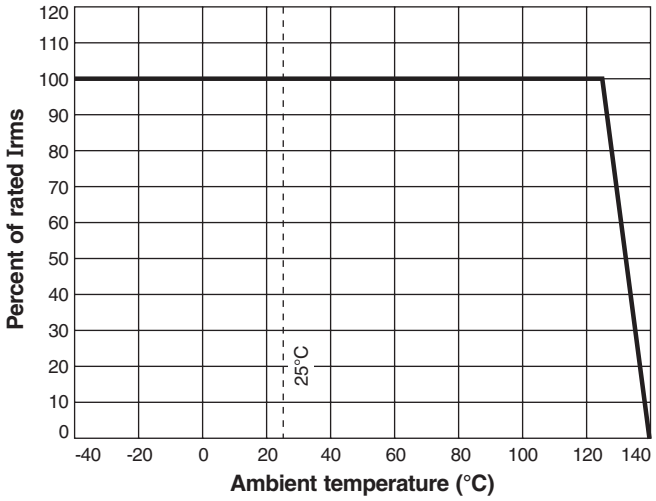
Typical Q vs Frequency

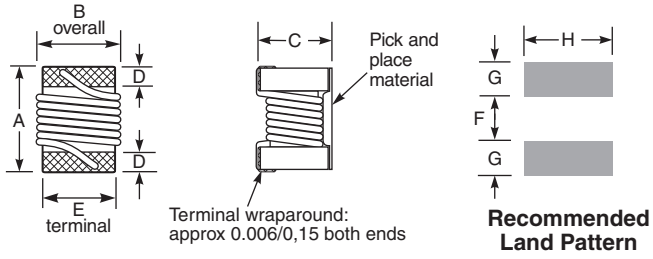


Typical L vs Frequency



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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