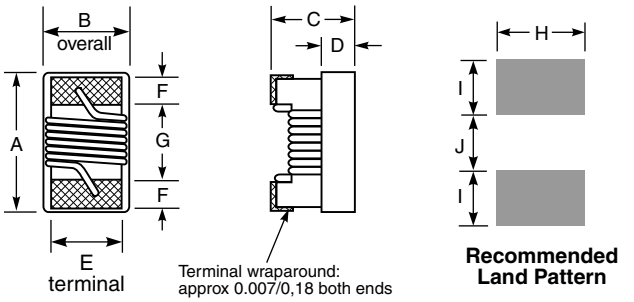
Chip Inductors - 0603CS Series (1608)

Ultra-small size, exceptional Q and high SRFs make these inductors ideal for high frequency applications where size is at a premium. They also have excellent DCR and current carrying characteristics.

Coilcraft **Designer's Kits C124A** and **C124B** contain samples of 5% tolerance parts. Kits with 2% tolerance are also available. To order, contact Coilcraft or visit **http://order.coilcraft.com** to purchase on-line.



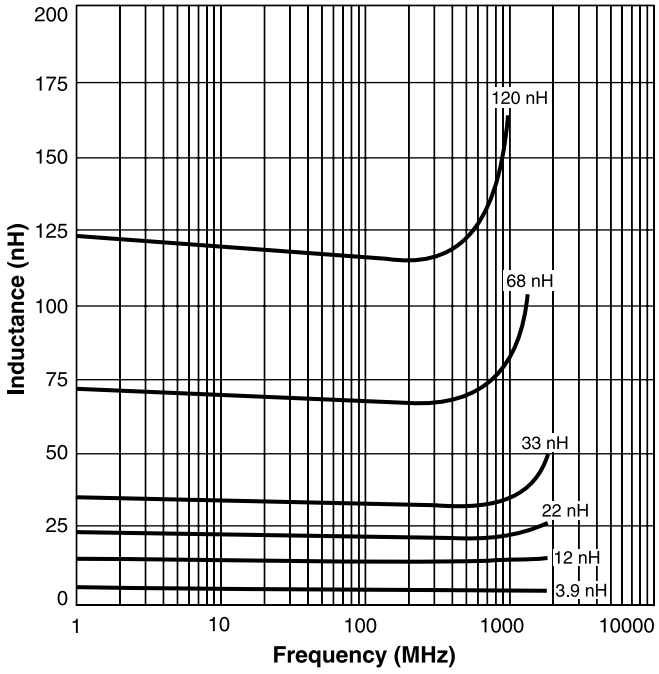
A max	B max	C max	D ref	E	F	G	H	I	J
0.071	0.044	0.040	0.015	0.030	0.013	0.034	0.040	0.025	0.025
1,80	1,12	1,02	0,38	0,76	0,33	0,86	1,02	0,64	0,64

Weight: 3.2 – 3.7 mg
Terminations: Silver-palladium-platinum
Tape and reel: 2000/7″ reel 8 mm tape width
For packaging data see Tape and Reel Specifications section.

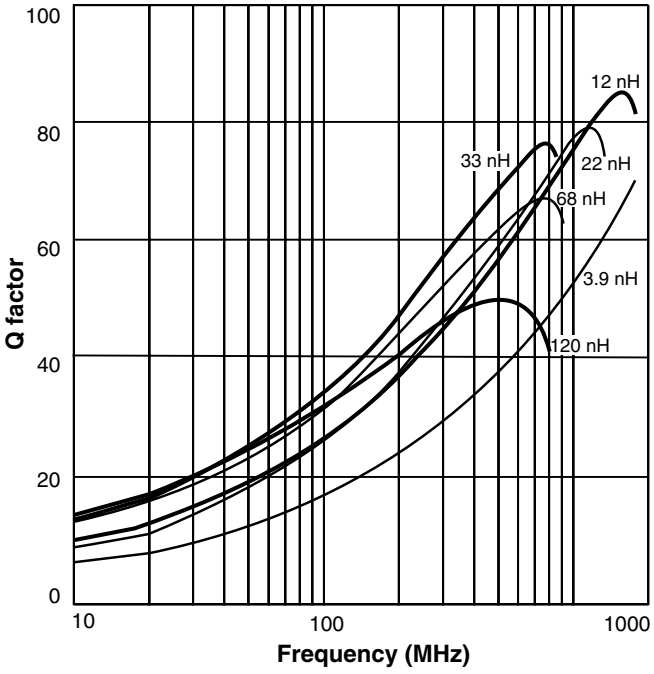
S-Parameter files
ON OUR WEB SITE OR CD

SPICE models
ON OUR WEB SITE OR CD

Typical L vs Frequency



Typical Q vs Frequency



Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information. Document 195-1 Revised 12/28/04

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

0603CS Series (1608)

Part number[1]	Inductance[2] (nH)	Percent tolerance[3]	Q min[4]	900 MHz L typ	900 MHz Q typ	1.7 GHz L typ	1.7 GHz Q typ	SRF min[5] (MHz)	DCR max[6] (Ohms)	Irms[7] (mA)	Color code
0603CS-1N6X_B_	1.6 @ 250 MHz	**5**	24	1.67	49	1.65	63	12500	0.030	700	Red
0603CS-1N8X_B_	1.8 @ 250 MHz	**5**	16	1.83	35	1.86	50	12500	0.045	700	Black
0603CS-2N2X_B_	2.2 @ 250 MHz	**5**	13	2.22	31	2.24	44	12500	0.250	100	Yellow
0603CS-3N3X_B_	3.3 @ 250 MHz	**5,2**	35	3.31	75	3.38	88	5900	0.045	700	Blue
0603CS-3N6X_B_	3.6 @ 250 MHz	**5,2**	22	3.72	53	3.71	65	5900	0.063	700	Red
0603CS-3N9X_B_	3.9 @ 250 MHz	**5,2**	22	3.95	49	3.96	67	6900	0.080	700	Brown
0603CS-4N3X_B_	4.3 @ 250 MHz	**5,2**	22	4.32	50	4.33	70	5900	0.063	700	Orange
0603CS-4N7X_B_	4.7 @ 250 MHz	**5,2**	20	4.72	47	4.75	57	5800	0.116	700	Violet
0603CS-5N1X_B_	5.1 @ 250 MHz	**5,2**	20	4.93	47	4.95	56	5700	0.140	700	Green
0603CS-5N6X_B_	5.6 @ 250 MHz	**5,2**	26	5.77	63	6.05	80	4760	0.075	700	Black
0603CS-6N8X_B_	6.8 @ 250 MHz	**5,2**	27	6.75	60	7.10	81	5800	0.110	700	Red
0603CS-7N5X_B_	7.5 @ 250 MHz	**5,2**	28	7.70	60	7.82	65	4800	0.106	700	Brown
0603CS-8N2X_B_	8.2 @ 250 MHz	**5,2**	30	8.25	82	8.37	87	4200	0.115	700	Orange
0603CS-8N7X_B_	8.7 @ 250 MHz	**5,2**	28	8.86	62	9.32	58	4600	0.109	700	Yellow
0603CS-9N5X_B_	9.5 @ 250 MHz	**5,2**	28	9.7	59	9.92	61	5400	0.135	700	Blue
0603CS-10NX_B_	10 @ 250 MHz	**5,2**	31	10.0	66	10.6	83	4800	0.130	700	Orange
0603CS-11NX_B_	11 @ 250 MHz	**5,2**	30	11.0	53	11.5	56	4000	0.086	700	Gray
0603CS-12NX_B_	12 @ 250 MHz	**5,2**	35	12.3	72	13.5	83	4000	0.130	700	Yellow
0603CS-15NX_B_	15 @ 250 MHz	**5,2**	35	15.4	64	16.8	89	4000	0.170	700	Green
0603CS-16NX_B_	16 @ 250 MHz	**5,2**	34	6.2	55	17.3	52	3300	0.104	700	White
0603CS-18NX_B_	18 @ 250 MHz	**5,2**	35	18.7	70	21.4	69	3100	0.170	700	Blue
0603CS-22NX_B_	22 @ 250 MHz	**5,2**	38	22.8	73	26.1	71	3000	0.190	700	Violet
0603CS-23NX_B_	23 @ 250 MHz	**5,2**	38	24.1	71	28.0	67	2850	0.190	700	Orange
0603CS-24NX_B_	24 @ 250 MHz	**5,2**	36	24.5	45	28.7	39	2650	0.135	700	Black
0603CS-27NX_B_	27 @ 250 MHz	**5,2**	40	29.2	74	34.6	65	2800	0.220	600	Gray
0603CS-30NX_B_	30 @ 250 MHz	**5,2**	37	31.4	47	39.9	28	2250	0.144	600	Brown
0603CS-33NX_B_	33 @ 250 MHz	**5,2**	40	36.0	67	49.5	42	2300	0.220	600	White
0603CS-36NX_B_	36 @ 250 MHz	**5,2**	37	39.4	47	52.7	24	2080	0.250	600	Red
0603CS-39NX_B_	39 @ 250 MHz	**5,2**	40	42.7	60	60.2	40	2200	0.250	600	Black
0603CS-43NX_B_	43 @ 250 MHz	**5,2**	38	47.0	44	64.9	21	2000	0.280	600	Orange
0603CS-47NX_B_	47 @ 200 MHz	**5,2**	38	52.2	62	77.2	35	2000	0.280	600	Brown
0603CS-51NX_B_	51 @ 200 MHz	**5,2**	35	55.5	69	82.2	34	1900	0.270	600	Blue
0603CS-56NX_B_	56 @ 200 MHz	**5,2**	38	62.5	56	97.0	26	1900	0.310	600	Red
0603CS-68NX_B_	68 @ 200 MHz	**5,2**	37	80.5	54	168	21	1700	0.340	600	Orange
0603CS-72NX_B_	72 @ 150 MHz	**5,2**	34	82.0	53	135	20	1700	0.490	400	Yellow
0603CS-82NX_B_	82 @ 150 MHz	**5,2**	34	96.2	54	177	21	1700	0.540	400	Green
0603CS-R10X_B_	100 @ 150 MHz	**5,2**	34	124	49	—	—	1400	0.580	400	Blue
0603CS-R11X_B_	110 @ 150 MHz	**5,2**	32	138	43	—	—	1350	0.610	300	Violet
0603CS-R12X_B_	120 @ 150 MHz	**5,2**	32	166	39	—	—	1300	0.650	300	Gray
0603CS-R15X_B_	150 @ 150 MHz	**5,2**	28	250	25	—	—	990	0.920	280	White
0603CS-R18X_B_	180 @ 100 MHz	**5,2**	25	305	22	—	—	990	1.25	240	Black
0603CS-R20X_B_	200 @ 100 MHz	**5,2**	25	—	—	—	—	900	1.98	200	Green
0603CS-R21X_B_	210 @ 100 MHz	**5,2**	27	—	—	—	—	895	2.06	200	Gray
0603CS-R22X_B_	220 @ 100 MHz	**5,2**	25	—	—	—	—	900	2.10	200	Brown
0603CS-R25X_B_	250 @ 100 MHz	**5,2**	25	—	—	—	—	822	3.55	120	Violet
0603CS-R27X_B_	270 @ 100 MHz	**5,2**	24	—	—	—	—	900	2.30	170	Red
0603CS-R33X_B_	330 @ 100 MHz	**5,2**	25	—	—	—	—	900	3.89	100	Blue
0603CS-R39X_B_	390 @ 100 MHz	**5,2**	25	—	—	—	—	900	4.35	100	Yellow

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

0603CS-R39X J B W

Tolerance: **G** = 2% **J** = 5% (Table shows stock tolerances in bold.)

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 using a Coilcraft SMD-A fixture in an Agilent/HP 4286 impedance analyzer.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured at the same frequency as inductance using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
5. SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.
6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
7. Average current for 15°C rise from 25°C ambient.
8. Operating temperature range –40°C to +125°C.
9. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information. Document 195-2 Revised 02/09/05

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com