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 Kit C124** contains samples of all 5% tolerance parts. A kit with 2% tolerance is also available. To order, contact Coilcraft or visit **http://order.coilcraft.com** to order on-line.

Part Number[1]	Inductance[2] (nH)	Percent Tolerance[3]	Q Min[4]	SRF Min[5] (MHz)	DCR Max[6] (Ohms)	I_{DC} Max[7] (mA)	900 MHz L Typ	900 MHz Q Typ	1.7 GHz L Typ	1.7 GHz Q Typ	Color Code
0603CS-1N6X_B_	1.6 @ 250 MHz	10,**5**	24	12500	.030	700	1.67	49	1.65	63	Red
0603CS-1N8X_B_	1.8 @ 250 MHz	10,**5**	16	12500	.045	700	1.63	35	1.66	50	Black
0603CS-3N6X_B_	3.6 @ 250 MHz	10,**5,2**	22	5900	.063	700	3.72	53	3.71	65	Red
0603CS-3N9X_B_	3.9 @ 250 MHz	10,**5,2**	22	6900	.080	700	3.95	49	3.96	67	Brown
0603CS-4N3X_B_	4.3 @ 250 MHz	10,**5,2**	22	5900	.063	700	4.32	50	4.33	70	Orange
0603CS-4N7X_B_	4.7 @ 250 MHz	10,**5,2**	20	5800	.116	700	4.72	47	4.75	57	Violet
0603CS-5N1X_B_	5.1 @ 250 MHz	10,**5,2**	20	5700	.140	700	4.93	47	4.95	56	Green
0603CS-6N8X_B_	6.8 @ 250 MHz	10,**5,2**	27	5800	.110	700	6.75	60	7.10	81	Red
0603CS-7N5X_B_	7.5 @ 250 MHz	10,**5,2**	28	4800	.106	700	7.70	60	7.82	65	Brown
0603CS-8N7X_B_	8.7 @ 250 MHz	**5,2**	28	4600	.109	700	8.86	62	9.32	58	Yellow
0603CS-9N5X_B_	9.5 @ 250 MHz	**5,2**	28	5400	.135	700	9.7	59	9.92	61	Blue
0603CS-10NX_B_	10 @ 250 MHz	**5,2**	31	4800	.130	700	10.0	66	10.6	83	Orange
0603CS-11NX_B_	11 @ 250 MHz	**5,2**	33	4000	.086	700	11.0	53	11.5	56	Gray
0603CS-12NX_B_	12 @ 250 MHz	**5,2**	35	4000	.130	700	12.3	72	13.5	83	Yellow
0603CS-15NX_B_	15 @ 250 MHz	**5,2**	35	4000	.170	700	15.4	64	16.8	89	Green
0603CS-16NX_B_	16 @ 250 MHz	**5,2**	34	3300	.104	700	16.2	55	17.3	52	White
0603CS-18NX_B_	18 @ 250 MHz	**5,2**	35	3100	.170	700	18.7	70	21.4	69	Blue
0603CS-22NX_B_	22 @ 250 MHz	**5,2**	38	3000	.190	700	22.8	73	26.1	71	Violet
0603CS-24NX_B_	24 @ 250 MHz	**5,2**	37	2650	.135	700	24.5	45	28.7	39	Black
0603CS-27NX_B_	27 @ 250 MHz	**5,2**	40	2800	.220	600	29.2	74	34.6	65	Gray
0603CS-30NX_B_	30 @ 250 MHz	**5,2**	37	2250	.144	600	31.4	47	39.9	28	Brown
0603CS-33NX_B_	33 @ 250 MHz	**5,2**	40	2300	.220	600	36.0	67	49.5	42	White
0603CS-36NX_B_	36 @ 250 MHz	**5,2**	38	2080	.250	600	39.4	47	52.7	24	Red
0603CS-39NX_B_	39 @ 250 MHz	**5,2**	40	2200	.250	600	42.7	60	60.2	40	Black
0603CS-43NX_B_	43 @ 250 MHz	**5,2**	39	2000	.280	600	47.0	44	64.9	21	Orange
0603CS-47NX_B_	47 @ 200 MHz	**5,2**	38	2000	.280	600	52.2	62	77.2	35	Brown
0603CS-56NX_B_	56 @ 200 MHz	**5,2**	38	1900	.310	600	62.5	56	97.0	26	Red
0603CS-68NX_B_	68 @ 200 MHz	**5,2**	37	1700	.340	600	80.5	54	168	21	Orange
0603CS-72NX_B_	72 @150 MHz	**5,2**	34	1700	.490	400	82.0	53	135	20	Yellow
0603CS-82NX_B_	82 @ 150 MHz	**5,2**	34	1700	.540	400	96.2	54	177	21	Green
0603CS-R10X_B_	100 @ 150 MHz	**5,2**	34	1400	.580	400	124	49	—	—	Blue
0603CS-R11X_B_	110 @ 150 MHz	**5,2**	32	1350	.610	300	138	43	—	—	Violet
0603CS-R12X_B_	120 @ 150 MHz	**5,2**	32	1300	.650	300	166	39	—	—	Gray
0603CS-R15X_B_	150 @ 150 MHz	**5,2**	28	990	.920	280	250	25	—	—	White
0603CS-R18X_B_	180 @ 100 MHz	**5,2**	25	990	1.25	240	305	22	—	—	Black
0603CS-R22X_B_	220 @ 100 MHz	**5,2**	25	900	2.10	200	480	8	—	—	Brown
0603CS-R27X_B_	270 @ 100 MHz	**5,2**	24	900	2.30	170	980	4	—	—	Red

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

0805CS-24NX_B_

Inductance tolerance code:
G= ±2%, **J**= ±5%, **K**= ±10%
Table above shows stock tolerances in bold.

Packaging code:
C = **7″ reel, machine-ready** EIA RS-481 clear plastic tape. There is a $25 charge to make a partial reel machine-ready. If the partial reel does not require a leader, use code letter B instead.
B = **Not machine-ready** *Full* reels will have a leader and trailer; *partial* reels will not, and the carrier tape may not be a single continuous length.
D = **13″ reel, machine-ready** EIA RS-481 clear plastic tape. Factory order only, not stocked.

2. Inductance measured using Coilcraft SMD-A fixture in Agilent/HP4286 impedance analyzer with Coilcraft-provided correlation pieces. For recommended test procedures, contact Coilcraft.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured using Agilent/HP4291A with Agilent/HP16193 test fixture and on Agilent/HP8753D with Coilcraft SMD-D test fixture.
5. SRF measured using Agilent/HP8720D network analyzer and Coilcraft SMD-D test fixture.
6. DCR measured on Cambridge Technology micro-ohmmeter and Coilcraft CCF858 test fixture.
7. For 15° C rise.
8. Operating temperature range –40° C to +125° C.
9. Electrical specifications at 25° C.
10. For environmental data, see "Product Specifications" section (Doc. 121).

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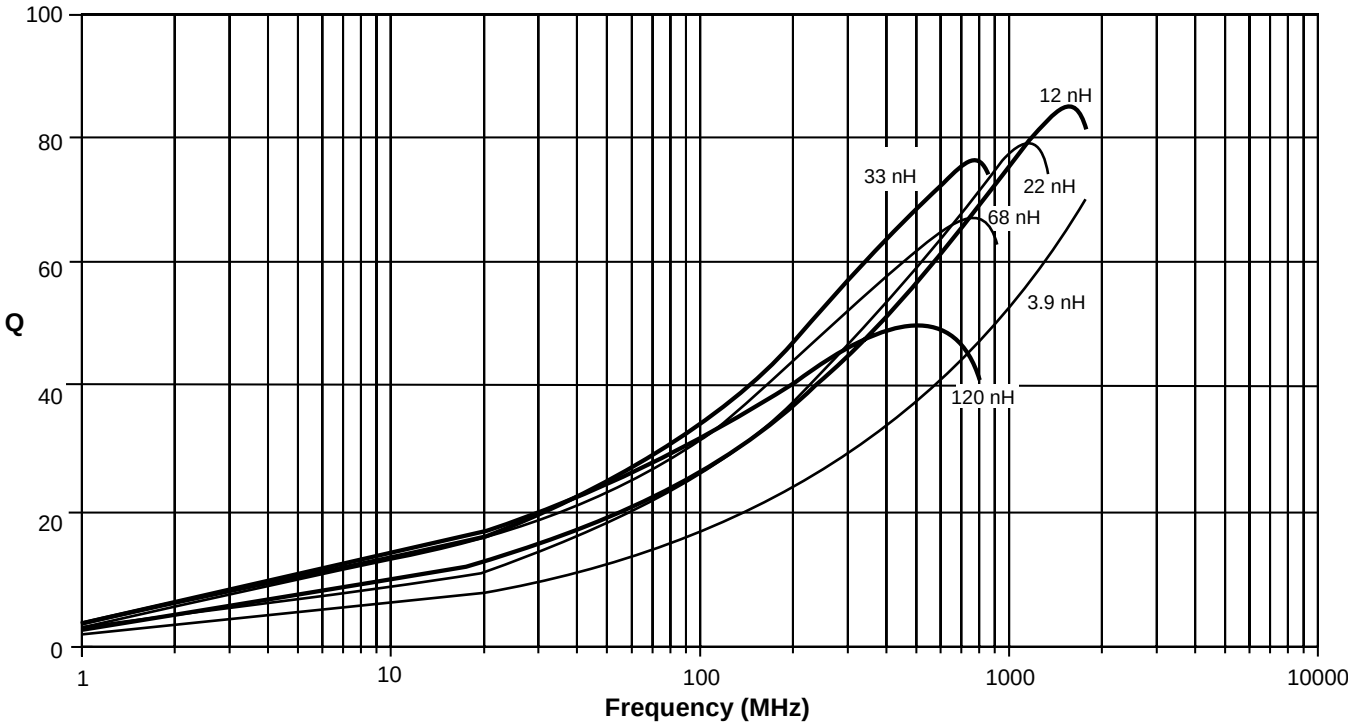
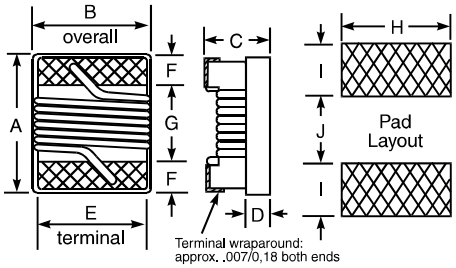
0603CS Series (1608)

S-Parameter files
ON OUR WEB SITE OR CD

PSpice models
SEE CATALOG, WEB SITE OR CD

TYPICAL Q vs FREQUENCY

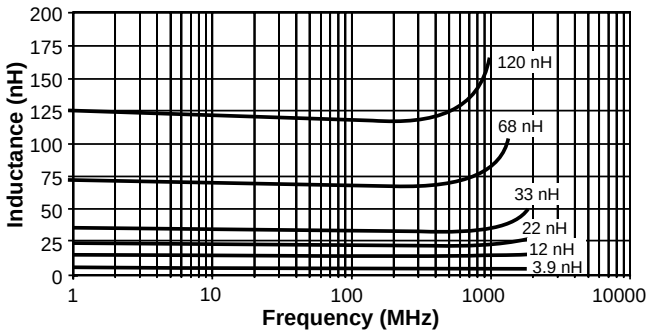




A Max.	B Max.	C Max.	D Ref.	E	F	G	H	I	J
.071	.044	.040	.015	.030	.013	.034	.040	.025	.025
1,80	1,12	1,02	0,38	0,76	0,33	0,86	1,02	0,64	0,64

Parts/reel: 7″ 2,000; 13″ 7,500 Tape width: 8 mm
For packaging data, see "Tape and Reel Specifications" (Document 173).

L vs FREQUENCY



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