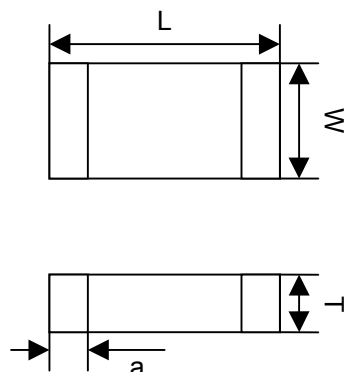




Multilayer Chip Ceramic Inductor (SDCL Series)

• Dimension



Type	L	W	T	A
SDCL0603 [0201]	0.6±0.05 [.024±.002]	0.3±0.05 [.012±.002]	0.3±0.05 [.012±.002]	0.15±0.05 [.006±.002]
SDCL1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.10 [.010±.004]
SDCL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]
	1.65±0.15 [.065±.006]			

Unit: mm [inch]

• Features

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and heat resistance for reflow and wave soldering processes
- Operating temperature:
SDCL0603 and SDCL1005 Series: -55°C to +125°C
SDCL1608: -40°C to +85°C

• Applications

- RF circuit in telecommunication equipment, and audiovisual equipment.

• Part Number Identification

SDCL **1608** **C** **10N** **J** **I** **F**
 (1) (2) (3) (4) (5) (6) (7)

(1)

Product ID	
SDCL	Chip ceramic inductor

(2)

Dimensions (L x W, mm)	
0603 [0201]	0.6 x 0.3
1005 [0402]	1.0 x 0.50
1608 [0603]	1.6 x 0.80

(3)

Material

(4)

Nominal Inductance	
Example	Nominal Value
3N9	3.9nH
10N	10nH
R10	100nH

(5)

Tolerance of Inductance	
S	±0.3nH
J	±5%
M	±10%

(6)

Packing Type	
B	Bulk packing
T	Tape & reel packing

(7)

Hazardous Substance Free Products



● SDCL0603 Series

Part Number *	Inductance	Quality Factor (min.)	Test Frequency	Typical Q at Frequency (MHz)						Self Resonance Frequency (min.)	DC Resistance (max.)	Rated Current (max.)	Thickness
				100	300	500	800	1000	1800				
Unit	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	Q						S.R.F	DCR	I _r	T
SDCL0603C1N0S	1.0±0.3	3	100	3	7	10	15	16	24	6000	0.15	170	0.3±0.05 [.012±.002]
SDCL0603C1N2S	1.2±0.3	3	100	3.5	7	10	15	16	24	6000	0.15	170	
SDCL0603C1N5S	1.5±0.3	3	100	4	7	11	15	17	25	6000	0.15	170	
SDCL0603C1N8S	1.8±0.3	4	100	4.5	8	11	15	17	25	6000	0.20	170	
SDCL0603C2N2S	2.2±0.3	4	100	4.5	8	11	15	16	24	6000	0.25	150	
SDCL0603C2N7S	2.7±0.3	4	100	4.5	8	11	14	16	23	6000	0.25	150	
SDCL0603C3N3S	3.3±0.3	4	100	4.5	8	11	14	15	22	6000	0.30	150	
SDCL0603C3N9S	3.9±0.3	4.5	100	5	8	11	13	15	21	6000	0.35	150	
SDCL0603C4N7S	4.7±0.3	4.5	100	5	8	11	14	15	20	5300	0.40	150	
SDCL0603C5N6S	5.6±0.3	4.5	100	5	8	10	13	14	20	4600	0.45	150	
SDCL0603C6N8□	6.8	4.5	100	5	8	11	14	15	19	3900	0.50	150	
SDCL0603C8N2□	8.2	4.5	100	5	8	10	13	14	18	3400	0.60	150	
SDCL0603C10N□	10	4.5	100	5	9	11	14	15	18	2900	0.70	150	
SDCL0603C12N□	12	4	100	5	8	11	14	15	16	2500	0.85	150	
SDCL0603C15N□	15	4	100	4.5	8	10	13	15	15	2200	1.00	100	
SDCL0603C18N□	18	4	100	4.5	8	10	13	14	12	2000	1.30	100	
SDCL0603C22N□	22	4	100	4.5	8	10	13	14	8	1700	1.70	100	

* □: Tolerance levels other than ±5% or ±10% are also available.

● SDCL1005 Series

Part Number *	Inductance	Quality Factor (min.)	Test Frequency	Typical Q at Frequency (MHz)						Self Resonance Frequency (min.)	DC Resistance (max.)	Rated Current (max.)	Thickness
				100	300	500	800	1000	1800				
Unit	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	Q						S.R.F	DCR	I _r	T
SDCL1005C1N0S	1.0±0.3	8	100	11	21	25	33	35	52	6000	0.10	400	0.5±0.15 [.020±.006]
SDCL1005C1N1S	1.1±0.3	8	100	11	21	25	33	35	52	6000	0.10	400	
SDCL1005C1N2S	1.2±0.3	8	100	11	21	25	33	35	52	6000	0.10	400	
SDCL1005C1N3S	1.3±0.3	8	100	11	21	25	33	35	52	6000	0.12	400	
SDCL1005C1N5S	1.5±0.3	8	100	11	21	25	33	35	52	6000	0.13	400	
SDCL1005C1N8S	1.8±0.3	8	100	10	18	21	29	32	49	6000	0.14	400	
SDCL1005C2N0S	2.0±0.3	8	100	10	17	21	28	32	47	6000	0.15	400	
SDCL1005C2N2S	2.2±0.3	8	100	10	17	21	28	31	47	6000	0.16	400	
SDCL1005C2N4S	2.4±0.3	8	100	10	17	21	28	31	46	5500	0.16	400	
SDCL1005C2N7S	2.7±0.3	8	100	10	17	21	28	31	46	5500	0.17	400	
SDCL1005C3N0S	3.0±0.3	8	100	10	17	21	28	31	46	5500	0.18	400	
SDCL1005C3N3S	3.3±0.3	8	100	10	17	21	28	31	46	5500	0.19	400	
SDCL1005C3N6S	3.6±0.3	8	100	10	17	21	28	31	45	5200	0.22	400	
SDCL1005C3N9S	3.9±0.3	8	100	10	17	21	28	31	45	5200	0.22	400	
SDCL1005C4N3S	4.3±0.3	8	100	10	17	21	28	31	45	4800	0.24	400	
SDCL1005C4N7S	4.7±0.3	8	100	10	17	21	28	31	45	4800	0.24	400	
SDCL1005C5N1S	5.1±0.3	8	100	10	17	21	25	39	44	4600	0.26	400	
SDCL1005C5N6S	5.6±0.3	8	100	10	17	21	25	39	44	4600	0.27	400	
SDCL1005C6N2S	6.2±0.3	8	100	10	17	21	25	39	44	4200	0.30	300	
SDCL1005C6N8□	6.8	8	100	10	18	21	26	30	44	4000	0.32	300	
SDCL1005C7N5□	7.5	8	100	10	18	21	26	30	43	3600	0.37	300	

* □: Tolerance levels other than ±5% or ±10% are also available.



● SDCL1005 Series (continued from the preceding page)

Part Number *	Inductance	Quality Factor (min.)	Test Frequency	Typical Q at Frequency (MHz)						Self Resonance Frequency (min.)	DC Resistance (max.)	Rated Current (max.)	Thickness
				100	300	500	800	1000	1800				
Unit	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	Q						S.R.F	DCR	I _r	T
SDCL10058N2□	8.2	8	100	10	18	21	26	30	43	3600	0.37	300	0.5±0.15 [.020±.006]
SDCL10059N1□	9.1	8	100	10	18	21	26	30	42	3200	0.42	300	
SDCL100510N□	10	8	100	10	18	21	26	30	42	3200	0.42	300	
SDCL100512N□	12	8	100	10	17	21	24	27	33	2800	0.50	300	
SDCL100515N□	15	8	100	10	17	20	23	26	27	2500	0.55	300	
SDCL100518N□	18	8	100	10	17	20	21	23	9	2200	0.65	300	
SDCL100522N□	22	8	100	10	18	21	22	23	-	2000	0.80	200	
SDCL100527N□	27	8	100	10	18	20	21	22	-	1600	0.90	200	
SDCL100533N□	33	8	100	10	18	20	21	21	-	1300	1.00	200	
SDCL100539N□	39	8	100	10	18	19	20	17	-	1200	1.20	150	
SDCL100547N□	47	8	100	10	18	19	18	-	-	1000	1.30	150	
SDCL100556N□	56	8	100	10	18	19	13	-	-	900	1.60	150	
SDCL100568N□	68	8	100	10	18	19	13	-	-	800	2.10	150	
SDCL100582N□	82	8	100	10	18	19	13	-	-	750	2.40	150	
SDCL1005R10□	100	8	100	10	18	19	12	-	-	700	2.60	150	
SDCL1005R12□	120	8	100	10	18	19	-	-	-	600	2.80	150	
SDCL1005R15□	150	8	100	10	17	8	-	-	-	550	3.20	100	
SDCL1005R18□	180	8	100	10	17	-	-	-	-	500	3.70	100	
SDCL1005R22□	220	8	100	12	14	-	-	-	-	450	4.00	100	
SDCL1005R27□	270	8	100	12	12	-	-	-	-	400	4.50	100	

* □: Tolerance levels other than ±5% or ±10% are also available.

● SDCL1608 Series

Part Number *	Inductance	Quality Factor (min.)	Test Frequency	Typical Q at Frequency (MHz)						Self Resonance Frequency (min.)	DC Resistance (max.)	Rated Current (max.)	Thickness
				100	300	500	800	1000	1800				
Unit	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	Q						S.R.F	DCR	I _r	T
SDCL1608C1N2S□	1.2±0.3	8	100	12	22	37	38	68	85	6000	0.05	500	0.8±0.15 [.031±.006]
SDCL1608C1N5S□	1.5±0.3	8	100	12	22	37	38	68	85	6000	0.10	500	
SDCL1608C1N8S□	1.8±0.3	8	100	12	21	33	35	61	85	6000	0.12	500	
SDCL1608C2N2S□	2.2±0.3	8	100	12	26	40	39	60	85	6000	0.20	500	
SDCL1608C2N7S□	2.7±0.3	8	100	12	23	27	37	47	85	6000	0.20	500	
SDCL1608C3N3S□	3.3±0.3	8	100	12	23	27	36	47	77	6000	0.20	500	
SDCL1608C3N9S□	3.9±0.3	8	100	12	25	28	38	47	73	6000	0.20	500	
SDCL1608C4N7S□	4.7±0.3	8	100	12	26	30	38	49	81	6000	0.20	500	
SDCL1608C5N6S□	5.6±0.3	8	100	12	26	29	35	34	28	5000	0.30	500	
SDCL1608C6N8□	6.8	8	100	12	23	27	35	40	63	4500	0.30	500	
SDCL1608C8N2□	8.2	8	100	12	22	26	33	39	50	4000	0.30	500	
SDCL1608C10N□	10	8	100	14	25	31	38	45	64	3500	0.50	300	
SDCL1608C12N□	12	8	100	14	24	28	35	39	50	2800	0.50	300	
SDCL1608C15N□	15	8	100	14	22	27	34	40	45	2300	0.60	300	
SDCL1608C18N□	18	8	100	14	24	28	35	38	37	2200	0.60	300	
SDCL1608C22N□	22	8	100	15	27	32	38	43	36	2000	0.60	300	
SDCL1608C27N□	27	8	100	15	26	29	36	44	25	1700	0.80	300	
SDCL1608C33N□	33	8	100	15	26	30	35	34	6	1500	0.80	300	
SDCL1608C39N□	39	8	100	15	22	25	28	28	-	1300	0.80	300	
SDCL1608C47N□	47	8	100	15	25	29	30	25	-	1200	1.00	300	

* □: Tolerance levels other than ±5% or ±10% are also available.



● **SDCL1608 Series** (continued from the preceding page)

Part Number *	Inductance	Quality Factor (min.)	Test Frequency	Typical Q at Frequency (MHz)						Self Resonance Frequency (min.)	DC Resistance (max.)	Rated Current (max.)	Thickness
				100	300	500	800	1000	1800				
Unit	nH	-	MHz	-						MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq.	Q						S.R.F	DCR	I _r	T
SDCL1608C56N□	56	8	100	15	28	31	31	25	-	1100	1.00	300	0.8±0.15 [.031±.006]
SDCL1608C68N□	68	8	100	15	22	25	22	15	-	900	1.00	300	
SDCL1608C82N□	82	8	100	15	23	24	22	-	-	800	1.00	300	
SDCL1608CR10□	100	8	100	15	25	27	16	-	-	700	1.20	300	
SDCL1608CR12□ ¹	120	8	50	15	24	23	-	-	-	600	1.40	200	
SDCL1608CR15□ ¹	150	8	50	15	19	16	-	-	-	500	1.60	200	
SDCL1608CR18□ ¹	180	8	50	15	18	12	-	-	-	400	1.90	200	
SDCL1608CR22□ ¹	220	8	50	15	16	-	-	-	-	350	2.40	200	
SDCL1608CR27□ ¹	270	8	50	16	18	-	-	-	-	350	2.60	150	
SDCL1608CR33□ ¹	330	8	50	16	16	-	-	-	-	350	2.80	150	
SDCL1608CR39□ ¹	390	8	50	16	-	-	-	-	-	300	3.20	150	
SDCL1608CR43□ ¹	430	8	50	16	-	-	-	-	-	280	3.40	150	
SDCL1608CR47□ ¹	470	8	50	15	-	-	-	-	-	250	3.60	150	

* □: Tolerance levels other than ±5% or ±10% are also available.

¹ Length: 1.65±0.15 [.065±.006]