

Multilayer Chip Ceramic Inductor – SDCL-D Series

Operating Temp. : -55℃~+125℃



FEATURES

- Monolithic structure for high reliability
- High self-resonant frequency
- Excellent solderability and high heat resistance

APPLICATIONS

- RF circuit in telecommunication and other equipments

PRODUCT IDENTIFICATION

<u>SDCL</u> ①	<u>1608</u> ②	<u>C</u> ③	<u>10N</u> ④	<u>J</u> ⑤	<u>T</u> ⑥	<u>D</u> ⑦	<u>F</u> ⑧																																				
①		②			③																																						
<table><tr><td colspan="2">Type</td></tr><tr><td>SDCL</td><td>Chip Ceramic Inductor</td></tr></table>		Type		SDCL	Chip Ceramic Inductor	<table><tr><td colspan="2">External Dimensions (L×W) (mm)</td></tr><tr><td>1005 [0402]</td><td>1.0×0.5</td></tr><tr><td>1608 [0603]</td><td>1.6×0.8</td></tr></table>		External Dimensions (L×W) (mm)		1005 [0402]	1.0×0.5	1608 [0603]	1.6×0.8	<table><tr><td colspan="2">Material Code</td></tr><tr><td colspan="2">C</td></tr></table>		Material Code		C		<table><tr><td colspan="2">Packing</td></tr><tr><td>T</td><td>Tape & Reel</td></tr></table>		Packing		T	Tape & Reel																		
Type																																											
SDCL	Chip Ceramic Inductor																																										
External Dimensions (L×W) (mm)																																											
1005 [0402]	1.0×0.5																																										
1608 [0603]	1.6×0.8																																										
Material Code																																											
C																																											
Packing																																											
T	Tape & Reel																																										
④		⑤			⑦																																						
<table><tr><td colspan="2">Nominal Inductance</td></tr><tr><td>Example</td><td>Nominal Value</td></tr><tr><td>3N9</td><td>3.9nH</td></tr><tr><td>10N</td><td>10nH</td></tr><tr><td>R10</td><td>100nH</td></tr><tr><td colspan="2">※R= decimal point, N=nH</td></tr></table>		Nominal Inductance		Example	Nominal Value	3N9	3.9nH	10N	10nH	R10	100nH	※R= decimal point, N=nH		<table><tr><td colspan="2">Inductance Tolerance</td></tr><tr><td>B</td><td>±0.1nH</td></tr><tr><td>C</td><td>±0.2nH</td></tr><tr><td>S</td><td>±0.3nH</td></tr><tr><td>H</td><td>±3%</td></tr><tr><td>J</td><td>±5%</td></tr><tr><td>K</td><td>±10%</td></tr></table>		Inductance Tolerance		B	±0.1nH	C	±0.2nH	S	±0.3nH	H	±3%	J	±5%	K	±10%	<table><tr><td colspan="2">Internal Code</td></tr><tr><td colspan="2">D</td></tr></table>		Internal Code		D		<table><tr><td colspan="2">Hazardous Substance</td></tr><tr><td colspan="2">Free Products</td></tr><tr><td colspan="2">F</td></tr></table>		Hazardous Substance		Free Products		F	
Nominal Inductance																																											
Example	Nominal Value																																										
3N9	3.9nH																																										
10N	10nH																																										
R10	100nH																																										
※R= decimal point, N=nH																																											
Inductance Tolerance																																											
B	±0.1nH																																										
C	±0.2nH																																										
S	±0.3nH																																										
H	±3%																																										
J	±5%																																										
K	±10%																																										
Internal Code																																											
D																																											
Hazardous Substance																																											
Free Products																																											
F																																											

SHAPE AND DIMENSIONS

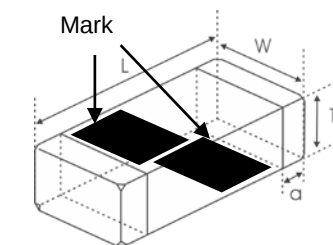


Fig.1

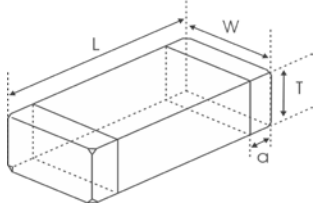


Fig.2

Type	L	W	T	a	Unit: mm [inch]	
					≤10nH	≥12nH
SDCL1005 [0402]	1.0±0.15 [.039±.006]	0.5±0.15 [.020±.006]	0.5±0.15 [.020±.006]	0.25±0.1 [.010±.004]	Fig.1	Fig.2
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]	Fig.2	Fig.2
	1.65±0.15 [.065±.006]					

SPECIFICATIONS

SDCL1005-D Series

Part Number	Inductance	Min. Quality Factor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				100	800	1000			
Units	nH	-	MHz	-			MHz	Ω	mA
Symbol	L	Q	Freq	Q			S.R.F	DCR	I _r
SDCL1005C0N6□TDF	0.6	4	100	6	35	41	10000	0.10	800
SDCL1005C1N0□TDF	1.0	8	100	11	34	36	10000	0.10	400
SDCL1005C1N1□TDF	1.1	8	100	11	34	36	10000	0.10	400
SDCL1005C1N2□TDF	1.2	8	100	11	34	36	10000	0.10	400
SDCL1005C1N3□TDF	1.3	8	100	11	34	36	10000	0.10	400
SDCL1005C1N5□TDF	1.5	8	100	11	34	36	6000	0.10	300
SDCL1005C1N6□TDF	1.6	8	100	11	32	35	6000	0.10	300
SDCL1005C1N8□TDF	1.8	8	100	11	30	34	6000	0.10	300
SDCL1005C2N0□TDF	2.0	8	100	10	29	33	6000	0.20	300
SDCL1005C2N2□TDF	2.2	8	100	10	29	33	6000	0.20	300
SDCL1005C2N4□TDF	2.4	8	100	10	29	32	6000	0.20	300
SDCL1005C2N7□TDF	2.7	8	100	10	29	32	6000	0.20	300
SDCL1005C3N0□TDF	3.0	8	100	10	29	32	6000	0.20	300
SDCL1005C3N3□TDF	3.3	8	100	10	29	32	6000	0.20	300
SDCL1005C3N6□TDF	3.6	8	100	10	28	31	4000	0.20	300
SDCL1005C3N9□TDF	3.9	8	100	10	28	31	4000	0.20	300
SDCL1005C4N3□TDF	4.3	8	100	10	28	31	4000	0.20	300
SDCL1005C4N7□TDF	4.7	8	100	10	28	31	4000	0.20	300
SDCL1005C5N1□TDF	5.1	8	100	10	28	30	4000	0.30	300
SDCL1005C5N6□TDF	5.6	8	100	10	28	30	4000	0.30	300
SDCL1005C6N2□TDF	6.2	8	100	10	27	30	3900	0.30	300
SDCL1005C6N8□TDF	6.8	8	100	10	27	30	3900	0.30	300
SDCL1005C7N5□TDF	7.5	8	100	10	27	30	3700	0.40	300
SDCL1005C8N2□TDF	8.2	8	100	10	27	30	3600	0.40	300
SDCL1005C9N1□TDF	9.1	8	100	10	27	30	3400	0.40	300
SDCL1005C10N□TDF	10	8	100	10	27	30	3200	0.40	300
SDCL1005C12N□TDF	12	8	100	10	26	29	2700	0.50	300
SDCL1005C15N□TDF	15	8	100	10	26	28	2300	0.50	300
SDCL1005C18N□TDF	18	8	100	10	25	27	2100	0.60	300
SDCL1005C20N□TDF	20	8	100	10	25	26	2000	0.60	300
SDCL1005C22N□TDF	22	8	100	10	25	25	1900	0.60	300
SDCL1005C27N□TDF	27	8	100	10	25	23	1600	0.70	300
SDCL1005C33N□TDF	33	8	100	10	22	22	1300	0.80	200
SDCL1005C39N□TDF	39	8	100	10	22	19	1200	1.00	200
SDCL1005C43N□TDF	43	8	100	10	21	16	1100	1.10	200
SDCL1005C47N□TDF	47	8	100	10	21	16	1000	1.10	200
SDCL1005C56N□TDF	56	8	100	10	18	13	750	1.20	200
SDCL1005C68N□TDF	68	8	100	10	18	9	750	1.40	180
SDCL1005C82N□TDF	82	8	100	10	13	-	750	2.40	150
SDCL1005CR10□TDF	100	8	100	10	12	-	700	2.60	150
SDCL1005CR12□TDF	120	8	100	10	-	-	600	2.80	150
SDCL1005CR15□TDF	150	8	100	10	-	-	550	3.20	100
SDCL1005CR18□TDF	180	8	100	10	-	-	500	3.70	100
SDCL1005CR22□TDF	220	8	100	12	-	-	450	4.00	100
SDCL1005CR27□TDF	270	8	100	12	-	-	400	4.50	100
SDCL1005CR30□TDF	300	8	100	12	-	-	400	4.50	100
SDCL1005CR33□TDF	330	6	50	8	-	-	350	7.00	50
SDCL1005CR36□TDF	360	6	50	8	-	-	300	7.50	50

※□: Please specify the inductance tolerance. For L≤6.2nH, choose B=±0.1nH, C=±0.2nH or S=±0.3nH; For L>6.2nH, choose H=±3%, J=±5% or K=±10%.

※: Please refer to "Measurement Notice For RF Inductors".

SPECIFICATIONS

SDCL1608-D Series

Part Number	Inductance	Min. Quality Factor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)			Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				100	800	1000			
Units	nH	-	MHz	-			MHz	Ω	mA
Symbol	L	Q	Freq	Q			S.R.F	DCR	I _r
SDCL1608C1N0□TDF	1.0	8	100	13	70	80	10000	0.05	500
SDCL1608C1N2□TDF	1.2	8	100	13	60	70	10000	0.05	500
SDCL1608C1N5□TDF	1.5	8	100	13	47	68	6000	0.10	500
SDCL1608C1N8□TDF	1.8	8	100	13	45	61	6000	0.10	500
SDCL1608C2N2□TDF	2.2	8	100	13	45	60	6000	0.10	500
SDCL1608C2N7□TDF	2.7	10	100	13	44	55	6000	0.12	500
SDCL1608C3N3□TDF	3.3	10	100	13	43	50	6000	0.15	500
SDCL1608C3N9□TDF	3.9	10	100	13	43	50	6000	0.16	500
SDCL1608C4N7□TDF	4.7	10	100	13	43	50	6000	0.20	500
SDCL1608C5N6□TDF	5.6	10	100	14	42	48	5000	0.25	500
SDCL1608C6N8□TDF	6.8	10	100	14	43	50	5000	0.30	500
SDCL1608C8N2□TDF	8.2	10	100	14	43	48	4500	0.35	500
SDCL1608C10N□TDF	10	12	100	15	45	50	3500	0.40	300
SDCL1608C12N□TDF	12	12	100	18	48	50	3000	0.45	300
SDCL1608C15N□TDF	15	12	100	18	48	50	2300	0.50	300
SDCL1608C18N□TDF	18	12	100	16	48	51	2200	0.55	300
SDCL1608C22N□TDF	22	12	100	16	45	48	2000	0.60	300
SDCL1608C27N□TDF	27	12	100	16	45	45	1700	0.65	300
SDCL1608C33N□TDF	33	12	100	16	45	41	1500	0.70	300
SDCL1608C39N□TDF	39	12	100	17	40	48	1400	0.70	300
SDCL1608C47N□TDF	47	12	100	17	35	35	1200	0.70	300
SDCL1608C56N□TDF	56	12	100	17	35	30	1100	0.75	300
SDCL1608C68N□TDF	68	12	100	17	30	20	900	0.85	300
SDCL1608C82N□TDF	82	8	100	15	22	-	800	1.00	300
SDCL1608CR10□TDF	100	8	100	15	16	-	700	1.20	300
SDCL1608CR12□TDF*	120	8	50	15	-	-	600	1.40	200
SDCL1608CR15□TDF*	150	8	50	15	-	-	500	1.60	200
SDCL1608CR18□TDF*	180	8	50	15	-	-	400	1.90	200
SDCL1608CR22□TDF*	220	8	50	15	-	-	350	2.40	200
SDCL1608CR27□TDF*	270	8	50	16	-	-	350	2.60	150
SDCL1608CR33□TDF*	330	8	50	16	-	-	350	2.80	150
SDCL1608CR39□TDF*	390	8	50	16	-	-	300	3.20	150
SDCL1608CR43□TDF*	430	8	50	16	-	-	280	3.40	150
SDCL1608CR47□TDF*	470	8	50	15	-	-	250	3.60	150
SDCL1608CR56□TDF*	560	8	50	15	-	-	250	4.00	100
SDCL1608CR68□TDF*	680	8	50	15	-	-	250	4.50	100

※□: Please specify the inductance tolerance. For $L \leq 6.2\text{nH}$, choose $B = \pm 0.1\text{nH}$, $C = \pm 0.2\text{nH}$ or $S = \pm 0.3\text{nH}$; For $L > 6.2\text{nH}$, choose $H = \pm 3\%$, $J = \pm 5\%$ or $K = \pm 10\%$.

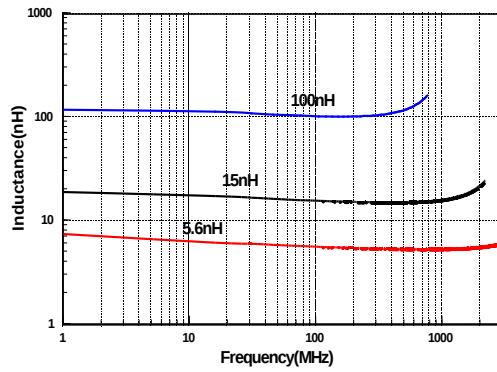
※*: The length: $1.65 \pm 0.15\text{mm}$, for others: $1.60 \pm 0.15\text{mm}$

※: Please refer to "Measurement Notice For RF Inductors".

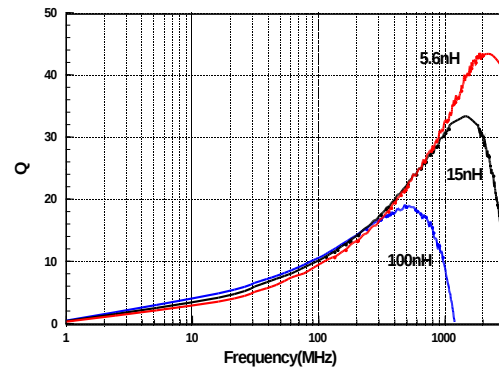
TYPICAL ELECTRICAL CHARACTERISTICS

SDCL1005-D Series

Inductance vs. Frequency Characteristics

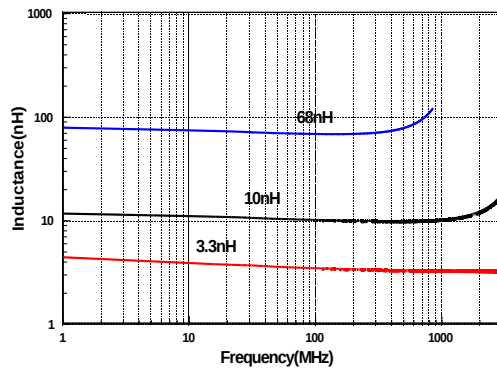


Q vs. Frequency Characteristics

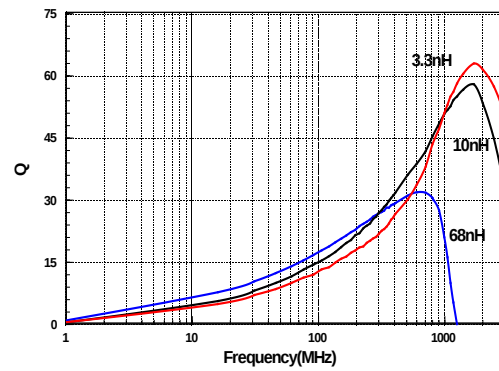


SDCL1608-D Series

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Fixed Inductors](#) category:

Click to view products by [Sunlord](#) manufacturer:

Other Similar products are found below :

[CR32NP-151KC](#) [CR32NP-180KC](#) [CR32NP-181KC](#) [CR32NP-1R5MC](#) [CR32NP-390KC](#) [CR32NP-3R9MC](#) [CR32NP-680KC](#) [CR32NP-820KC](#) [CR32NP-8R2MC](#) [CR43NP-390KC](#) [CR43NP-560KC](#) [CR43NP-680KC](#) [CR54NP-181KC](#) [CR54NP-470LC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHL1ECTTP18NJ](#) [MHQ1005P10NJ](#) [MHQ1005P1N0S](#) [MHQ1005P2N4S](#) [MHQ1005P3N6S](#) [MHQ1005P5N1S](#) [MHQ1005P8N2J](#) [PE-51506NL](#) [PE-53601NL](#) [PE-53602NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [9220-20](#) [9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#) [1206CS-471XJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HCF1305-3R3-R](#) [1206CS-151XG](#) [RCH664NP-140L](#) [RCH664NP-4R7M](#) [RCH8011NP-221L](#) [RCP1317NP-332L](#) [RCP1317NP-391L](#) [RCR1010NP-470M](#)