

# Multilayer Chip Ceramic Inductor – SDCL-D Series

Operating Temp. : SDCL-D series: -55°C~+125°C



## 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	④	⑤	⑥	⑦	⑧																																																		
<table border="1"> <tr><th colspan="2">Type</th></tr> <tr><td>SDCL</td><td>Chip Ceramic Inductor</td></tr> </table>	Type		SDCL	Chip Ceramic Inductor	<table border="1"> <tr><th colspan="2">External Dimensions (L×W) (mm)</th></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 border="1"> <tr><th colspan="2">Material Code</th></tr> <tr><td colspan="2">C</td></tr> </table>	Material Code		C		<table border="1"> <tr><th colspan="2">Nominal Inductance</th></tr> <tr><th>Example</th><th>Nominal Value</th></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> </table>	Nominal Inductance		Example	Nominal Value	3N9	3.9nH	10N	10nH	R10	100nH	<table border="1"> <tr><th colspan="2">Inductance Tolerance</th></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 border="1"> <tr><th colspan="2">Packing</th></tr> <tr><td>T</td><td>Tape &amp; Reel</td></tr> </table>	Packing		T	Tape & Reel	<table border="1"> <tr><th colspan="2">Internal Code</th></tr> <tr><td colspan="2">D</td></tr> </table>	Internal Code		D		<table border="1"> <tr><th colspan="2">Hazardous Substance Free Products</th></tr> <tr><td colspan="2">F</td></tr> </table>	Hazardous Substance Free Products		F	
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																																																									
Nominal Inductance																																																									
Example	Nominal Value																																																								
3N9	3.9nH																																																								
10N	10nH																																																								
R10	100nH																																																								
Inductance Tolerance																																																									
B	±0.1nH																																																								
C	±0.2nH																																																								
S	±0.3nH																																																								
H	±3%																																																								
J	±5%																																																								
K	±10%																																																								
Packing																																																									
T	Tape & Reel																																																								
Internal Code																																																									
D																																																									
Hazardous Substance Free Products																																																									
F																																																									

## SHAPE AND DIMENSIONS

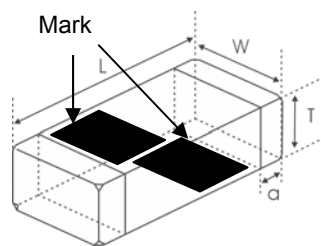


Fig.1

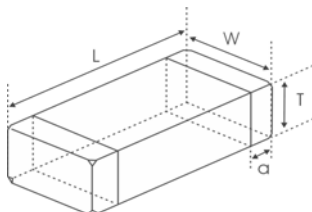


Fig.2

Unit: mm [inch]

Type	L	W	T	a	
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
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
	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	$\Omega$	mA
Symbol	L	Q	Freq	Q			S.R.F	DCR	I <sub>r</sub>
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%.

# 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	$\Omega$	mA
Symbol	L	Q	Freq	Q			S.R.F	DCR	I <sub>r</sub>
SDCL1608C1N0STDF	1.0±0.3	8	100	13	70	80	10000	0.05	500
SDCL1608C1N2STDF	1.2±0.3	8	100	13	60	70	10000	0.05	500
SDCL1608C1N5STDF	1.5±0.3	8	100	13	47	68	6000	0.10	500
SDCL1608C1N8STDF	1.8±0.3	8	100	13	45	61	6000	0.10	500
SDCL1608C2N2STDF	2.2±0.3	8	100	13	45	60	6000	0.10	500
SDCL1608C2N7STDF	2.7±0.3	10	100	13	44	55	6000	0.12	500
SDCL1608C3N3STDF	3.3±0.3	10	100	13	43	50	6000	0.15	500
SDCL1608C3N9STDF	3.9±0.3	10	100	13	43	50	6000	0.16	500
SDCL1608C4N7STDF	4.7±0.3	10	100	13	43	50	6000	0.20	500
SDCL1608C5N6STDF	5.6±0.3	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

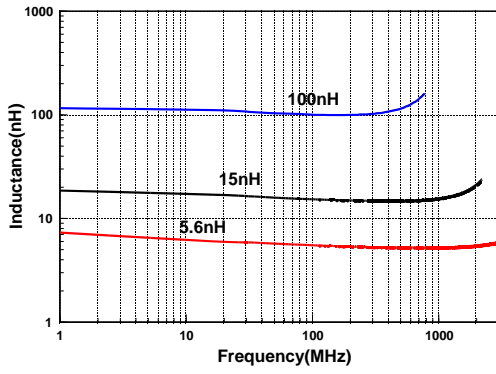
※□: Please specify the inductance tolerance code (J=±5%, K=±10%). The product with tolerance less than ±5%, ±10% is also available. Please contact your local sales.

※\*: The length: 1.65±0.15mm, for others: 1.60±0.15mm

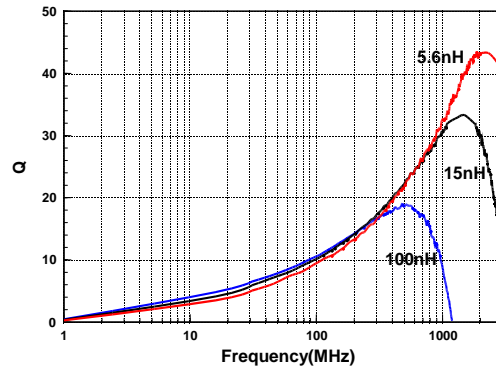
※: Please refer to "Measurement Notice For RF Inductors".

# TYPICAL ELECTRICAL CHARACTERISTICS

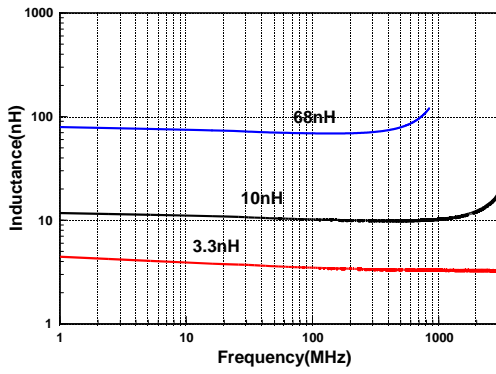
SDCL1005-D TYPE



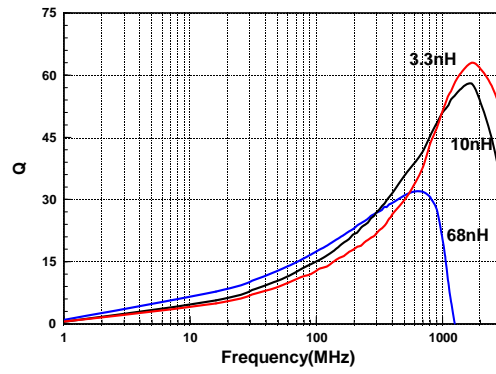
SDCL1005-D TYPE



SDCL1608-D TYPE



SDCL1608-D TYPE



## 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 :

[MLZ1608M6R8WTD25](#) [MLZ1608N6R8LT000](#) [MLZ1608N3R3LTD25](#) [MLZ1608N3R3LT000](#) [MLZ1608N150LT000](#)  
[MLZ1608M150WTD25](#) [MLZ1608M3R3WTD25](#) [MLZ1608M3R3WT000](#) [MLZ1608M150WT000](#) [MLZ1608A1R5WT000](#)  
[MLZ1608N1R5LT000](#) [B82432C1333K000](#) [PCMB053T-1R0MS](#) [PCMB053T-1R5MS](#) [PCMB104T-1R5MS](#) [CR32NP-100KC](#) [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](#)  
[MGDQ4-00004-P](#) [MGDU1-00016-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#) [PE-51506NL](#) [PE-53601NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HC8-1R2-R](#)