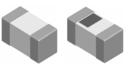
# **Multilayer Chip Ceramic Inductor – SDCL-D Series**

Operating Temp. : SDCL1005 series: -55℃~+125℃ SDCL1608 series: -40℃~+85℃



## **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

1	
	Туре
SDCL	Chip Ceramic Inductor

2	
External Dimer	nsions (L×W) (mm)
1005 [0402]	1.0×0.5

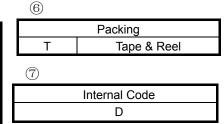
1.6×0.8

1608 [0603]

	3
,	Material Code
)	С

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

\*\*R= Decimal Point, N=nH



S ±0.3nH					
S	±0.3nH				
J	±5%				
K	±10%				

8	
	Hazardous Substance
	Free Products
	F

#### SHAPE AND DIMENSIONS

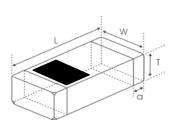


Fig.1

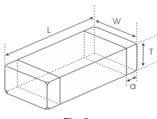


Fig.2

				Unit:	mm [inch
Type	L	W	Т	а	
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] 1.65±0.15 [.065±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]	Fig.2

## **SPECIFICATIONS**

## SDCL1005-D TYPE

Part Number   Inductance	Min.	_,Q Test			ą. (MHz)	Min.		Max.	
Qua		Freq.				Self-resonant	Max. DC	Rated	Thickness
	alityFactor	L/Q	100	800	1000	Frequency	Resistance	Current	
			.00	000	.000				
Units nH	-	MHz		-		MHz	Ω	mA	mm [inch]
Symbol L	Q	Freq		Q		S.R.F	DCR	lr	T
SDCL1005C1N0STDF 1.0±0.3	8	100	11	34	36	10000	0.10	400	
SDCL1005C1N1STDF 1.1±0.3	8	100	11	34	36	10000	0.10	400	
SDCL1005C1N2STDF 1.2±0.3	8	100	11	34	36	10000	0.10	400	
SDCL1005C1N3STDF 1.3±0.3	8	100	11	34	36	10000	0.10	400	
SDCL1005C1N5STDF 1.5±0.3	8	100	11	34	36	6000	0.10	300	
SDCL1005C1N6STDF 1.6±0.3	8	100	11	32	35	6000	0.10	300	
SDCL1005C1N8STDF 1.8±0.3	8	100	11	30	34	6000	0.10	300	
SDCL1005C2N0STDF 2.0±0.3	8	100	10	29	33	6000	0.20	300	
SDCL1005C2N2STDF 2.2±0.3	8	100	10	29	33	6000	0.20	300	
SDCL1005C2N4STDF 2.4±0.3	8	100	10	29	32	6000	0.20	300	
SDCL1005C2N7STDF 2.7±0.3	8	100	10	29	32	6000	0.20	300	
SDCL1005C3N0STDF 3.0±0.3	8	100	10	29	32	6000	0.20	300	
SDCL1005C3N3STDF 3.3±0.3	8	100	10	29	32	6000	0.20	300	
SDCL1005C3N6STDF 3.6±0.3	8	100	10	28	31	4000	0.20	300	
SDCL1005C3N9STDF 3.9±0.3	8	100	10	28	31	4000	0.20	300	
SDCL1005C4N3STDF 4.3±0.3	8	100	10	28	31	4000	0.20	300	
	8	100	10	28	31	4000	0.20	300	
	8	100	10	28	30	4000	0.30	300	
SDCL1005C5N6STDF 5.6±0.3	8	100	10	28	30	4000	0.30	300	
	8	100	10	27	30	3900	0.30	300	
	8	100	10	27	30	3900	0.30	300	
SDCL1005C7N5□TDF 7.5	8	100	10	27	30	3700	0.40	300	0.5.0.45
SDCL1005C8N2□TDF 8.2	8	100	10	27	30	3600	0.40	300	0.5±0.15
SDCL1005C9N1□TDF 9.1	8	100	10	27	30	3400	0.40	300	[.020±.006]
	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	
	8	100	10	_	-	500	3.70	100	
	8	100	12	-	-	450	4.00	100	
	8	100	12	_	_	400	4.50	100	
SDCL1005CR33□TDF 330	6	50	-	-	-	350	7.00	50	

 $<sup>\</sup>times\square$ : 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.

## **SPECIFICATIONS**

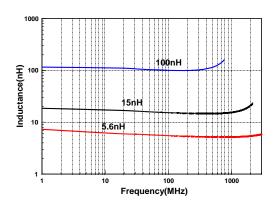
## SDCL1608-D TYPE

	Inductance	Min. QualityFactor	L,Q Test Freq. L/Q	Typical Q @ Freq. (MHz)					Mov	
Part Number				100	800	1000	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
Units	nH	-	MHz		-		MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq		Q		S.R.F	DCR	lr	T
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	0.8±0.15
SDCL1608C33N□TDF	33	12	100	16	45	41	1500	0.70	300	[.031±.006]
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	ı	-	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	

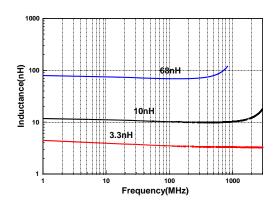
 $<sup>\</sup>mathbb{X}$ : Please specify the inductance tolerance code (J= $\pm$ 5%, K= $\pm$ 10%). The product with tolerance less than  $\pm$ 5%,  $\pm$ 10% is also available. Please contact your local sales.  $\mathbb{X}^*$ : The length: 1.65 $\pm$ 0.15mm, for others: 1.60 $\pm$ 0.15mm.

## TYPICAL ELECTRICAL CHARACTERISTICS

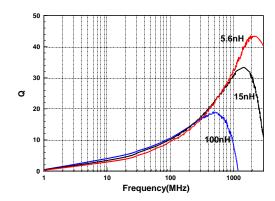
## SDCL1005-D TYPE



## SDCL1608-D TYPE



## SDCL1005-D TYPE



## SDCL1608-D TYPE

