

# Multilayer Chip Ceramic Inductor - SDCL0603Q-02 Series

Operating Temp. : SDCL0603Q-02 series: -55°C~+125°C



## FEATURES

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

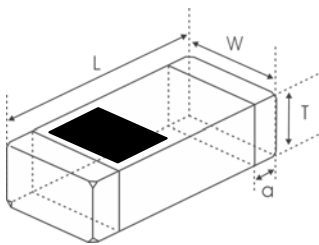
## APPLICATIONS

- RF circuit in telecommunication and other equipments

## PRODUCT IDENTIFICATION

<u>SDCL</u> ①	<u>0603</u> ②	<u>Q</u> ③	<u>10N</u> ④	<u>J</u> ⑤	<u>T</u> ⑥	<u>02</u> ⑦																																												
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## SHAPE AND DIMENSIONS



Type	L	W	T	a
SDCL0603Q-02	0.6±0.05	0.3±0.05	0.3±0.05	0.12±0.05
[0201]	[.024±.002]	[.012±.002]	[.012±.002]	[.0048±.002]

Unit: mm [inch]

## SPECIFICATIONS

### SDCL0603Q-02 TYPE

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq. L/Q	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				0.5	0.8	1.8	2.0	2.4				
Units	nH	-	MHz	-					MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q					S.RF	DCR	I <sub>r</sub>	T
SDCL0603Q0N6□T02	0.6	13	500	>24	>32	>54	>57	>65	10000	0.06	600	0.3±0.05
SDCL0603Q0N7□T02	0.7	13	500	>24	>32	>54	>57	>65	10000	0.06	550	[.012±.002]

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Part Number	Inductance	Min. Quality Factor	L, Q Test Freq. L/Q	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current	Thickness
				0.5	0.8	1.8	2.0	2.4				
Units	nH	-	MHz	-					MHz	Ω	mA	mm [inch]
Symbol	L	Q	Freq	Q					SRF	DCR	Ir	T
SDCL0603Q0N8□T02	0.8	13	500	>24	>32	>54	>57	>65	10000	0.07	550	0.3±0.05 [.012±.002]
SDCL0603Q0N9□T02	0.9	13	500	>24	>32	>54	>57	>65	10000	0.07	550	
SDCL0603Q1N0□T02	1.0	13	500	24	32	54	57	65	10000	0.08	520	
SDCL0603Q1N1□T02	1.1	13	500	19	26	45	47	55	10000	0.11	440	
SDCL0603Q1N2□T02	1.2	13	500	19	25	43	44	52	10000	0.12	420	
SDCL0603Q1N3□T02	1.3	13	500	19	25	40	42	47	10000	0.12	420	
SDCL0603Q1N4□T02	1.4	13	500	19	24	39	41	47	10000	0.11	440	
SDCL0603Q1N5□T02	1.5	13	500	19	24	39	41	46	10000	0.12	420	
SDCL0603Q1N6□T02	1.6	13	500	19	24	39	41	46	10000	0.13	410	
SDCL0603Q1N7□T02	1.7	13	500	19	24	39	41	46	10000	0.15	380	
SDCL0603Q1N8□T02	1.8	13	500	19	24	39	41	46	10000	0.15	380	
SDCL0603Q1N9□T02	1.9	13	500	18	24	38	40	45	10000	0.18	350	
SDCL0603Q2N0□T02	2.0	13	500	17	24	38	39	44	10000	0.23	300	
SDCL0603Q2N1□T02	2.1	13	500	17	24	37	39	44	10000	0.24	300	
SDCL0603Q2N2□T02	2.2	13	500	17	24	38	40	43	10000	0.25	290	
SDCL0603Q2N3□T02	2.3	13	500	17	24	37	39	43	10000	0.20	330	
SDCL0603Q2N4□T02	2.4	13	500	17	23	36	38	42	10000	0.22	310	
SDCL0603Q2N5□T02	2.5	13	500	17	23	35	36	40	9600	0.20	330	
SDCL0603Q2N6□T02	2.6	13	500	17	22	34	35	39	9400	0.20	330	
SDCL0603Q2N7□T02	2.7	13	500	17	22	34	35	39	9200	0.22	310	
SDCL0603Q2N8□T02	2.8	13	500	17	22	34	35	39	8900	0.24	300	
SDCL0603Q2N9□T02	2.9	13	500	17	22	34	35	39	8800	0.26	280	
SDCL0603Q3N0□T02	3.0	13	500	17	22	34	35	39	8600	0.26	280	
SDCL0603Q3N1□T02	3.1	13	500	17	22	34	35	39	8500	0.28	270	
SDCL0603Q3N2□T02	3.2	13	500	17	22	33	35	39	8200	0.28	270	
SDCL0603Q3N3□T02	3.3	13	500	18	23	34	36	40	8100	0.30	270	
SDCL0603Q3N4□T02	3.4	13	500	17	23	33	35	39	8000	0.30	270	
SDCL0603Q3N5□T02	3.5	13	500	17	23	33	35	39	7900	0.34	250	
SDCL0603Q3N6□T02	3.6	13	500	16	23	33	35	39	7700	0.38	240	
SDCL0603Q3N7□T02	3.7	13	500	16	23	33	35	38	7600	0.40	230	
SDCL0603Q3N8□T02	3.8	13	500	16	22	33	35	38	7500	0.42	230	
SDCL0603Q3N9□T02	3.9	13	500	16	22	33	35	38	7400	0.42	230	
SDCL0603Q4N3□T02	4.3	13	500	16	21	32	34	37	6800	0.44	220	
SDCL0603Q4N7□T02	4.7	13	500	16	22	33	35	38	6200	0.45	220	
SDCL0603Q5N1□T02	5.1	13	500	17	22	34	36	38	5900	0.46	210	
SDCL0603Q5N6□T02	5.6	13	500	16	21	33	34	37	5500	0.46	210	
SDCL0603Q6N2□T02	6.2	13	500	18	23	34	35	37	5100	0.48	210	
SDCL0603Q6N8□T02	6.8	13	500	17	22	32	33	35	4900	0.50	200	
SDCL0603Q7N5□T02	7.5	13	500	16	21	31	33	34	4700	0.50	200	
SDCL0603Q8N2□T02	8.2	13	500	16	21	31	32	34	4300	0.56	190	
SDCL0603Q9N1□T02	9.1	13	500	16	20	30	31	32	4100	0.72	170	
SDCL0603Q10N□T02	10	13	500	16	20	28	29	31	3800	0.80	160	
SDCL0603Q12N□T02	12	13	500	16	20	27	28	28	3400	0.80	160	
SDCL0603Q15N□T02	15	13	500	15	19	24	24	23	2600	0.85	160	
SDCL0603Q18N□T02	18	13	500	15	19	23	24	22	2300	1.00	140	
SDCL0603Q22N□T02	22	13	500	15	19	22	23	20	1900	1.20	130	
SDCL0603Q27N□T02	27	13	500	15	19	15	13	8	1800	1.60	120	
SDCL0603Q33N□T02	33	11	300	14	15	8	5	-	1800	2.20	110	



Specifications subject to change without notice. Please check our website for latest information. Revised 2015/03/15

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				0.5	0.8	1.8	2.0	2.4				
Units	nH	-	MHz	-					MHz	$\Omega$	mA	mm [inch]
Symbol	L	Q	Freq	Q					SRF	DCR	I <sub>r</sub>	T
SDCL0603Q39N□T02	39	11	300	14	15	6	-	-	1600	2.30	100	0.3±0.05 [.012±.002]
SDCL0603Q47N□T02	47	11	300	14	15	-	-	-	1500	2.60	100	
SDCL0603Q56N□T02	56	11	300	13	13	-	-	-	1400	2.80	80	
SDCL0603Q68N□T02	68	11	300	13	11	-	-	-	1200	3.20	80	
SDCL0603Q82N□T02	82	10	300	12	10	-	-	-	1100	3.80	70	
SDCL0603QR10□T02	100	10	300	12	10	-	-	-	1000	4.00	60	
SDCL0603QR12□T02	120	9	300	12	8	-	-	-	1000	5.00	50	

※□: 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  $G = \pm 2\%$ ,  $H = \pm 3\%$  or  $J = \pm 5\%$ .

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