

Multilayer Chip Ceramic Inductor - SDCL0603Q-02-B Series

Operating Temp. : -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

SDCL **0603** **Q** **10N** **J** **T** **02** **B01**
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①

Type	
SDCL	Chip Ceramic Inductor

②

(L×W) (mm)	
External Dimensions (L×W) (mm)	
0603 [0201]	0.6×0.3

③

Characteristics Code	
Q	

④

Nominal Inductance	
Example	Nominal Value
3N9	3.9nH
10N	10nH
※R=, N=nH	

⑤

Inductance Tolerance	
B	±0.1nH
C	±0.2nH
S	±0.3nH
G	±2%
H	±3%
J	±5%

⑥

Packing	
T	Tape & Reel

⑦

Serial Code	
02	

⑧

Internal Code	
B01/B02/B03	

SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
SDCL0603Q-02-B [0201]	0.6±0.03 [.024±.0012]	0.3±0.03 [.012±.0012]	0.3±0.03 [.012±.0012]	0.12±0.05 [.005±.002]

SPECIFICATIONS

SDCL0603Q-02B01 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq	Q					S.R.F	DCR	I _r
SDCL0603Q0N6□T02B01	0.6	13	500	>24	>32	>54	>57	>65	10000	0.06	600
SDCL0603Q0N7□T02B01	0.7	13	500	>24	>32	>54	>57	>65	10000	0.06	550
SDCL0603Q0N8□T02B01	0.8	13	500	>24	>32	>54	>57	>65	10000	0.07	550
SDCL0603Q0N9□T02B01	0.9	13	500	>24	>32	>54	>57	>65	10000	0.07	550
SDCL0603Q1N0□T02B01	1.0	13	500	24	32	54	57	65	10000	0.08	520
SDCL0603Q1N1□T02B01	1.1	13	500	19	26	45	47	55	10000	0.11	440
SDCL0603Q1N2□T02B01	1.2	13	500	19	25	43	44	52	10000	0.12	420
SDCL0603Q1N3□T02B01	1.3	13	500	19	25	40	42	47	10000	0.12	420
SDCL0603Q1N4□T02B01	1.4	13	500	19	24	39	41	47	10000	0.11	440
SDCL0603Q1N5□T02B01	1.5	13	500	19	24	39	41	46	10000	0.12	420
SDCL0603Q1N6□T02B01	1.6	13	500	19	24	39	41	46	10000	0.13	410
SDCL0603Q1N7□T02B01	1.7	13	500	19	24	39	41	46	10000	0.15	380
SDCL0603Q1N8□T02B01	1.8	13	500	19	24	39	41	46	10000	0.15	380
SDCL0603Q1N9□T02B01	1.9	13	500	18	24	38	40	45	10000	0.18	350
SDCL0603Q2N0□T02B01	2.0	13	500	17	24	38	39	44	10000	0.23	300
SDCL0603Q2N1□T02B01	2.1	13	500	17	24	37	39	44	10000	0.24	300
SDCL0603Q2N2□T02B01	2.2	13	500	17	24	38	40	43	10000	0.25	290
SDCL0603Q2N3□T02B01	2.3	13	500	17	24	37	39	43	10000	0.20	330
SDCL0603Q2N4□T02B01	2.4	13	500	17	23	36	38	42	10000	0.22	310
SDCL0603Q2N5□T02B01	2.5	13	500	17	23	35	36	40	9600	0.20	330
SDCL0603Q2N6□T02B01	2.6	13	500	17	22	34	35	39	9400	0.20	330
SDCL0603Q2N7□T02B01	2.7	13	500	17	22	34	35	39	9200	0.22	310
SDCL0603Q2N8□T02B01	2.8	13	500	17	22	34	35	39	8900	0.24	300
SDCL0603Q2N9□T02B01	2.9	13	500	17	22	34	35	39	8800	0.26	280
SDCL0603Q3N0□T02B01	3.0	13	500	17	22	34	35	39	8600	0.26	280
SDCL0603Q3N1□T02B01	3.1	13	500	17	22	34	35	39	8500	0.28	270
SDCL0603Q3N2□T02B01	3.2	13	500	17	22	33	35	39	8200	0.28	270
SDCL0603Q3N3□T02B01	3.3	13	500	18	23	34	36	40	8100	0.30	270
SDCL0603Q3N4□T02B01	3.4	13	500	17	23	33	35	39	8000	0.30	270
SDCL0603Q3N5□T02B01	3.5	13	500	17	23	33	35	39	7900	0.34	250
SDCL0603Q3N6□T02B01	3.6	13	500	16	23	33	35	39	7700	0.38	240
SDCL0603Q3N7□T02B01	3.7	13	500	16	23	33	35	38	7600	0.40	230
SDCL0603Q3N8□T02B01	3.8	13	500	16	22	33	35	38	7500	0.42	230
SDCL0603Q3N9□T02B01	3.9	13	500	16	22	33	35	38	7400	0.42	230
SDCL0603Q4N3□T02B01	4.3	13	500	16	21	32	34	37	6800	0.44	220
SDCL0603Q4N7□T02B01	4.7	13	500	16	22	33	35	38	6200	0.45	220
SDCL0603Q5N1□T02B01	5.1	13	500	17	22	34	36	38	5900	0.46	210
SDCL0603Q5N6□T02B01	5.6	13	500	16	21	33	34	37	5500	0.46	210
SDCL0603Q6N2□T02B01	6.2	13	500	18	23	34	35	37	5100	0.48	210
SDCL0603Q6N8□T02B01	6.8	13	500	17	22	32	33	35	5500	0.50	200
SDCL0603Q7N5□T02B01	7.5	13	500	16	21	31	33	34	4700	0.50	200
SDCL0603Q8N2□T02B01	8.2	13	500	16	21	31	32	34	4300	0.56	190
SDCL0603Q9N1□T02B01	9.1	13	500	16	20	30	31	32	4100	0.72	170
SDCL0603Q10N□T02B01	10	13	500	16	20	28	29	31	3800	0.80	160
SDCL0603Q12N□T02B01	12	13	500	16	20	27	28	28	3400	0.80	160
SDCL0603Q15N□T02B01	15	13	500	15	19	24	24	23	2600	0.85	160



Specifications subject to change without notice. Please check our website for latest information. Revised 2018/04/15

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SPECIFICATIONS

SDCL0603Q-02B01 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	Ir
SDCL0603Q18N□T02B01	18	13	500	15	19	23	24	22	2300	1.00	140
SDCL0603Q22N□T02B01	22	13	500	15	19	22	23	20	1900	1.20	130
SDCL0603Q27N□T02B01	27	13	500	15	19	15	13	8	1800	1.60	120
SDCL0603Q33N□T02B01	33	11	300	14	15	8	5	-	1800	2.20	110
SDCL0603Q39N□T02B01	39	11	300	14	15	6	-	-	1600	2.30	100
SDCL0603Q47N□T02B01	47	11	300	14	15	-	-	-	1500	2.60	100
SDCL0603Q56N□T02B01	56	11	300	13	13	-	-	-	1400	2.80	80
SDCL0603Q68N□T02B01	68	11	300	13	11	-	-	-	1200	3.20	80
SDCL0603Q82N□T02B01	82	10	300	12	10	-	-	-	1100	3.80	70
SDCL0603QR10□T02B01	100	10	300	12	10	-	-	-	1000	4.00	60
SDCL0603QR12□T02B01	120	9	300	12	8	-	-	-	1000	5.00	50

SDCL0603Q-02B02 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	Ir
SDCL0603Q0N1□T02B02	0.1	13	500	20	39	77	100	119	10000	0.07	900
SDCL0603Q0N2□T02B02	0.2	13	500	29	41	77	85	94	10000	0.08	900
SDCL0603Q0N3□T02B02	0.3	13	500	19	25	41	45	50	10000	0.08	900
SDCL0603Q0N4□T02B02	0.4	13	500	14	18	30	31	35	10000	0.08	900
SDCL0603Q0N5□T02B02	0.5	13	500	15	20	31	34	36	10000	0.08	900
SDCL0603Q0N6□T02B02	0.6	13	500	24	32	54	57	65	10000	0.08	850
SDCL0603Q0N7□T02B02	0.7	13	500	19	26	45	47	55	10000	0.11	750
SDCL0603Q0N8□T02B02	0.8	13	500	19	25	43	44	52	10000	0.12	700
SDCL0603Q0N9□T02B02	0.9	13	500	19	25	40	42	47	10000	0.12	700
SDCL0603Q1N0□T02B02	1.0	13	500	19	24	39	41	47	10000	0.11	600
SDCL0603Q1N1□T02B02	1.1	13	500	19	24	39	41	46	10000	0.12	600
SDCL0603Q1N2□T02B02	1.2	13	500	19	24	39	41	46	10000	0.13	600
SDCL0603Q1N3□T02B02	1.3	13	500	19	24	39	41	46	10000	0.15	600
SDCL0603Q1N4□T02B02	1.4	13	500	19	24	39	41	46	10000	0.15	600
SDCL0603Q1N5□T02B02	1.5	13	500	18	24	38	40	45	10000	0.15	600
SDCL0603Q1N6□T02B02	1.6	13	500	17	24	38	39	44	10000	0.15	600
SDCL0603Q1N7□T02B02	1.7	13	500	17	24	37	39	44	10000	0.15	500
SDCL0603Q1N8□T02B02	1.8	13	500	17	24	38	40	43	10000	0.18	500
SDCL0603Q1N9□T02B02	1.9	13	500	17	24	37	39	43	10000	0.20	450
SDCL0603Q2N0□T02B02	2.0	13	500	17	23	36	38	42	10000	0.20	450
SDCL0603Q2N1□T02B02	2.1	13	500	17	23	35	36	40	9600	0.20	450
SDCL0603Q2N2□T02B02	2.2	13	500	17	22	34	35	39	9400	0.20	450
SDCL0603Q2N3□T02B02	2.3	13	500	17	22	34	35	39	9200	0.22	450
SDCL0603Q2N4□T02B02	2.4	13	500	17	22	34	35	39	8900	0.22	450
SDCL0603Q2N5□T02B02	2.5	13	500	17	22	34	35	39	8800	0.25	450
SDCL0603Q2N6□T02B02	2.6	13	500	17	22	34	35	39	8600	0.25	450
SDCL0603Q2N7□T02B02	2.7	13	500	17	22	34	35	39	8500	0.25	450
SDCL0603Q2N8□T02B02	2.8	13	500	17	22	33	35	39	8200	0.25	450
SDCL0603Q2N9□T02B02	2.9	13	500	18	23	34	36	40	8100	0.25	450
SDCL0603Q3N0□T02B02	3.0	13	500	17	23	33	35	39	8000	0.25	450



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SPECIFICATIONS

SDCL0603Q-02B02 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	Ir
SDCL0603Q3N1□T02B02	3.1	13	500	17	23	33	35	39	7900	0.32	400
SDCL0603Q3N2□T02B02	3.2	13	500	16	23	33	35	39	7700	0.32	400
SDCL0603Q3N3□T02B02	3.3	13	500	16	23	33	35	38	7600	0.32	400
SDCL0603Q3N4□T02B02	3.4	13	500	16	22	33	35	38	7500	0.34	350
SDCL0603Q3N5□T02B02	3.5	13	500	16	22	33	35	38	7400	0.34	350
SDCL0603Q3N6□T02B02	3.6	13	500	16	22	33	35	38	7400	0.34	350
SDCL0603Q3N7□T02B02	3.7	13	500	16	22	33	35	38	7400	0.34	350
SDCL0603Q3N8□T02B02	3.8	13	500	16	22	33	35	38	7400	0.34	350
SDCL0603Q3N9□T02B02	3.9	13	500	16	21	32	34	37	6800	0.34	350
SDCL0603Q4N3□T02B02	4.3	13	500	16	22	33	35	38	6400	0.45	300
SDCL0603Q4N7□T02B02	4.7	13	500	17	22	34	36	38	6400	0.46	250
SDCL0603Q5N1□T02B02	5.1	13	500	16	21	33	34	37	6200	0.46	250
SDCL0603Q5N6□T02B02	5.6	13	500	18	23	34	35	37	6000	0.48	250
SDCL0603Q6N2□T02B02	6.2	13	500	17	22	32	33	35	6000	0.50	200
SDCL0603Q6N8□T02B02	6.8	13	500	16	21	31	33	34	5400	0.50	200
SDCL0603Q7N5□T02B02	7.5	13	500	16	21	31	32	34	4800	0.56	200
SDCL0603Q8N2□T02B02	8.2	13	500	16	20	30	31	32	4800	0.72	200
SDCL0603Q9N1□T02B02	9.1	13	500	16	20	28	29	31	4500	0.80	200
SDCL0603Q10N□T02B02	10	11	500	16	19	24	24	22	4500	1.20	190
SDCL0603Q12N□T02B02	12	11	500	16	18	22	22	17	3700	1.42	180
SDCL0603Q15N□T02B02	15	11	500	15	17	20	18	13	3100	1.58	170
SDCL0603Q18N□T02B02	18	11	500	15	18	15	13	8	2800	1.71	160
SDCL0603Q22N□T02B02	22	11	500	15	17	14	12	7	2600	1.92	140
SDCL0603Q24N□T02B02	24	13	500	15	19	15	13	8	1800	2	120
SDCL0603Q27N□T02B02	27	13	500	15	19	15	13	8	1800	2.1	120
SDCL0603Q30N□T02B02	30	11	300	14	15	8	5	-	1800	2.2	110
SDCL0603Q33N□T02B02	33	11	300	14	15	8	5	-	1800	2.2	110
SDCL0603Q36N□T02B02	36	11	300	14	15	6	-	-	1600	2.3	100
SDCL0603Q39N□T02B02	39	11	300	14	15	6	-	-	1500	2.3	100
SDCL0603Q43N□T02B02	43	11	300	14	15	-	-	-	1500	2.6	100
SDCL0603Q47N□T02B02	47	11	300	13	15	-	-	-	1500	2.6	100
SDCL0603Q51N□T02B02	51	11	300	13	13	-	-	-	1400	2.8	80
SDCL0603Q56N□T02B02	56	11	300	13	13	-	-	-	1400	2.8	80
SDCL0603Q68N□T02B02	68	11	300	13	11	-	-	-	1200	3.2	80
SDCL0603Q82N□T02B02	82	10	300	12	10	-	-	-	1100	3.8	80
SDCL0603QR10□T02B02	100	10	300	12	10	-	-	-	1000	4	80
SDCL0603QR12□T02B02	120	6	300	12	10	-	-	-	800	5	80

SDCL0603Q-02B03 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	Ir
SDCL0603Q0N6□T02B03	0.6	13	500	>24	>32	>54	>57	>65	20000	0.06	850
SDCL0603Q0N7□T02B03	0.7	13	500	>24	>32	>54	>57	>65	20000	0.06	800



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SPECIFICATIONS

SDCL0603Q-02B03 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	Ir
SDCL0603Q0N8□T02B03	0.8	13	500	>24	>32	>54	>57	>65	18000	0.07	800
SDCL0603Q0N9□T02B03	0.9	13	500	>24	>32	>54	>57	>65	18000	0.07	750
SDCL0603Q1N0□T02B03	1.0	13	500	24	32	54	57	65	17000	0.08	750
SDCL0603Q1N1□T02B03	1.1	13	500	19	26	45	47	55	17000	0.10	750
SDCL0603Q1N2□T02B03	1.2	13	500	19	25	43	44	52	17000	0.10	750
SDCL0603Q1N3□T02B03	1.3	13	500	19	25	40	42	47	17000	0.12	600
SDCL0603Q1N4□T02B03	1.4	13	500	19	24	39	41	47	16000	0.12	600
SDCL0603Q1N5□T02B03	1.5	13	500	19	24	39	41	46	15000	0.12	600
SDCL0603Q1N6□T02B03	1.6	13	500	19	24	39	41	46	15000	0.13	600
SDCL0603Q1N7□T02B03	1.7	13	500	19	24	39	41	46	15000	0.15	600
SDCL0603Q1N8□T02B03	1.8	13	500	19	24	39	41	46	15000	0.15	600
SDCL0603Q1N9□T02B03	1.9	13	500	18	24	38	40	45	12500	0.15	600
SDCL0603Q2N0□T02B03	2.0	13	500	17	24	38	39	44	12500	0.15	600
SDCL0603Q2N1□T02B03	2.1	13	500	17	24	37	39	44	11000	0.15	600
SDCL0603Q2N2□T02B03	2.2	13	500	17	24	38	40	43	11000	0.15	600
SDCL0603Q2N3□T02B03	2.3	13	500	17	24	37	39	43	10000	0.20	500
SDCL0603Q2N4□T02B03	2.4	13	500	17	23	36	38	42	10000	0.20	500
SDCL0603Q2N5□T02B03	2.5	13	500	17	23	35	36	40	10000	0.20	500
SDCL0603Q2N6□T02B03	2.6	13	500	17	22	34	35	39	10000	0.20	500
SDCL0603Q2N7□T02B03	2.7	13	500	17	22	34	35	39	10000	0.20	500
SDCL0603Q2N8□T02B03	2.8	13	500	17	22	34	35	39	9500	0.20	500
SDCL0603Q2N9□T02B03	2.9	13	500	17	22	34	35	39	9500	0.20	500
SDCL0603Q3N0□T02B03	3.0	13	500	17	22	34	35	39	9500	0.25	450
SDCL0603Q3N1□T02B03	3.1	13	500	17	22	34	35	39	8500	0.25	450
SDCL0603Q3N2□T02B03	3.2	13	500	17	22	33	35	39	8200	0.25	450
SDCL0603Q3N3□T02B03	3.3	13	500	18	23	34	36	40	8100	0.25	450
SDCL0603Q3N4□T02B03	3.4	13	500	17	23	33	35	39	8000	0.25	450
SDCL0603Q3N5□T02B03	3.5	13	500	17	23	33	35	39	7900	0.25	450
SDCL0603Q3N6□T02B03	3.6	13	500	16	23	33	35	39	7700	0.30	400
SDCL0603Q3N7□T02B03	3.7	13	500	16	23	33	35	38	7600	0.30	400
SDCL0603Q3N8□T02B03	3.8	13	500	16	22	33	35	38	7500	0.30	400
SDCL0603Q3N9□T02B03	3.9	13	500	16	22	33	35	38	7400	0.30	400
SDCL0603Q4N3□T02B03	4.3	13	500	16	21	32	34	37	6800	0.40	350
SDCL0603Q4N7□T02B03	4.7	13	500	16	22	33	35	38	6200	0.40	350
SDCL0603Q5N1□T02B03	5.1	13	500	17	22	34	36	38	5900	0.40	350
SDCL0603Q5N6□T02B03	5.6	13	500	16	21	33	34	37	5500	0.40	350
SDCL0603Q6N2□T02B03	6.2	13	500	18	23	34	35	37	5100	0.48	300
SDCL0603Q6N8□T02B03	6.8	13	500	17	22	32	33	35	5500	0.50	300
SDCL0603Q7N5□T02B03	7.5	13	500	16	21	31	33	34	4700	0.50	300
SDCL0603Q8N2□T02B03	8.2	13	500	16	21	31	32	34	4300	0.56	250
SDCL0603Q9N1□T02B03	9.1	13	500	16	20	30	31	32	4100	0.70	250
SDCL0603Q10N□T02B03	10	13	500	16	20	28	29	31	3800	0.70	250
SDCL0603Q12N□T02B03	12	13	500	16	20	27	28	28	3400	0.70	250
SDCL0603Q15N□T02B03	15	13	500	15	19	24	24	23	2600	0.70	250
SDCL0603Q18N□T02B03	18	13	500	15	19	23	24	22	2300	0.80	200
SDCL0603Q22N□T02B03	22	13	500	15	19	22	23	20	2200	1.20	150
SDCL0603Q27N□T02B03	27	13	500	15	19	15	13	8	2000	1.60	140
SDCL0603Q33N□T02B03	33	11	300	14	15	8	5	-	2000	2.20	120



Specifications subject to change without notice. Please check our website for latest information. Revised 2018/04/15

SPECIFICATIONS

SDCL0603Q-02B03 Series

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
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
SDCL0603Q39N□T02B03	39	11	300	14	15	6	-	-	1600	2.30	120
SDCL0603Q47N□T02B03	47	11	300	14	15	-	-	-	1500	2.60	100
SDCL0603Q56N□T02B03	56	11	300	13	13	-	-	-	1400	2.80	100
SDCL0603Q68N□T02B03	68	11	300	13	11	-	-	-	1200	3.20	100
SDCL0603Q82N□T02B03	82	10	300	12	10	-	-	-	1100	3.80	100
SDCL0603QR10□T02B03	100	10	300	12	10	-	-	-	1000	4.00	80
SDCL0603QR12□T02B03	120	9	300	12	8	-	-	-	1000	5.00	80

※□: Please specify the inductance tolerance. For $L \leq 4.2\text{nH}$, choose $B = \pm 0.1\text{nH}$, $C = \pm 0.2\text{nH}$ or $S = \pm 0.3\text{nH}$; For $4.2\text{nH} < L < 5.6\text{nH}$, choose, $H = \pm 3\%$, $J = \pm 5\%$. or $S = \pm 0.3\text{nH}$; For $L \geq 5.6\text{nH}$, choose, $H = \pm 3\%$, $J = \pm 5\%$

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