

Multilayer Chip Ceramic Inductor – SDCL0603Q - T02B03 Series



Operating Temp ◆ $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

Features

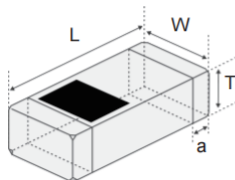
- ◆ Monolithic structure for high reliability
- ◆ High self-resonant frequency
- ◆ Excellent solderability and high heat resistance
- ◆ High Q factor

Applications ◆ RF circuit in telecommunication and other equipments

Product Identification

1	2	3	4	5	6	7	8
SDCL	0603	Q	10N	J	T	02	B03
1Type		2External Dimensions (L×W) (mm)		3Characteristics Code			
SDCLChip Ceramic Inductor		0603 [0201]0.6×0.3		Q			
4Nominal Inductance		5Inductance Tolerance		6Packing			
ExampleNominal Value		B±0.1nH		T Tape & Reel			
3N93.9nH		C±0.2nH		7Serial Code			
10N10nH		S±0.3nH		02			
※R=decimal point, N=nH		H±3%		8Internal Code			
		J±5%		B03			

Shape and Dimensions



Unit: mm [inch]

Type	L	W	T	a
SDCL0603Q-T02B03 [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-T02B03 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	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 □ 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
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
SDCL0603Q11N □ T02B03	11	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
SDCL0603Q13N □ T02B03	13	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
SDCL0603Q16N □ T02B03	16	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
SDCL0603Q20N □ T02B03	20	13	500	15	19	22	23	20	2200	1.20	150
SDCL0603Q22N □ T02B03	22	13	500	15	19	22	23	20	2200	1.20	150

Specifications

SDCL0603Q-T02B03 Series

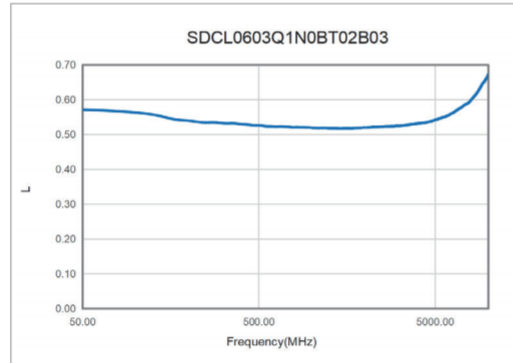
Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2.0	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
SDCL0603Q24N □ T02B03	24	13	500	15	19	15	13	8	2000	1.60	140
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
SDCL0603Q36N □ T02B03	36	11	300	14	15	6	-	-	1600	2.30	120
SDCL0603Q39N □ T02B03	39	11	300	14	15	6	-	-	1600	2.30	120
SDCL0603Q47N □ T02B03	47	11	300	14	15	-	-	-	1500	2.60	100
SDCL0603Q51N □ T02B03	51	11	300	13	13	-	-	-	1400	2.80	100
SDCL0603Q56N □ T02B03	56	11	300	13	13	-	-	-	1400	2.80	100
SDCL0603Q62N □ T02B03	62	11	300	13	11	-	-	-	1200	3.20	100
SDCL0603Q68N □ T02B03	68	11	300	13	11	-	-	-	1200	3.20	100
SDCL0603Q75N □ T02B03	75	10	300	12	10	-	-	-	1100	3.80	100
SDCL0603Q82N □ T02B03	82	10	300	12	10	-	-	-	1100	3.80	100
SDCL0603Q91N □ T02B03	91	10	300	12	10	-	-	-	1000	4.00	80
SDCL0603QR10 □ T02B03	100	10	300	12	10	-	-	-	1000	4.00	80
SDCL0603QR11 □ T02B03	110	9	300	12	8	-	-	-	1000	5.00	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 $H = \pm 3\%$, $J = \pm 5\%$.

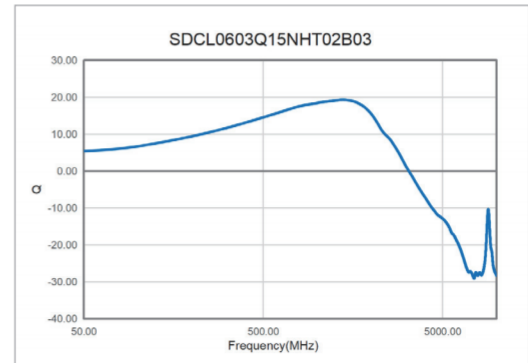
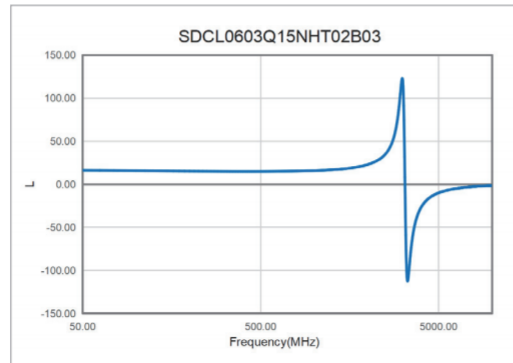
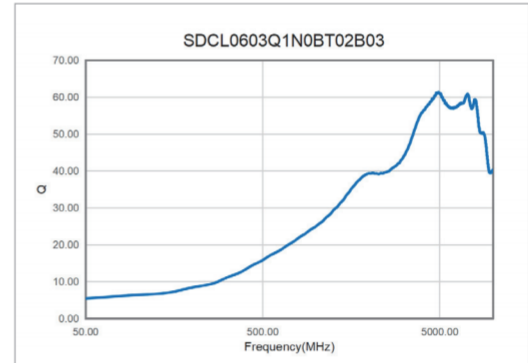
※: Please refer to "Measurement Notice For RF Inductors".

Typical Electrical Characteristics

SDCL0603Q-T02B03 Series Inductance vs. Frequency Characteristics

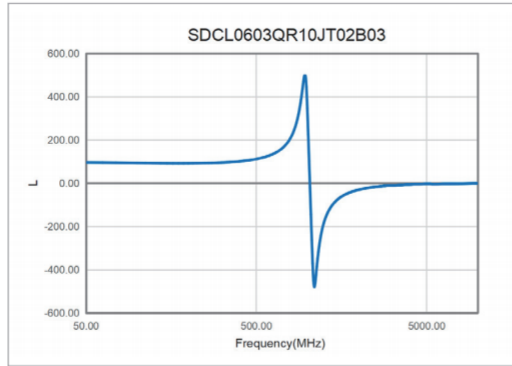


Q vs. Frequency Characteristics



Typical
Electrical
Characteristics

SDCL0603Q-T02B03 Series
Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

