

Multilayer Chip Ceramic Inductor – SDCL0402H – S01 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

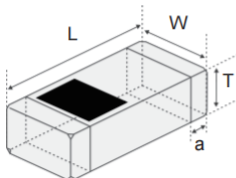
Applications ◆ RF circuit in telecommunication and other equipments

Product Identification

1	2	3	4	5	6	7
SDCL	0402	H	3N0	B	T	S01

1	Type	2	External Dimensions (L×W) (mm)	3	Characteristics Code
SDCL	Chip Ceramic Inductor	0402 [01005]	0.4×0.2	H	
4	Nominal Inductance	5	Inductance Tolerance	6	Packing
Example	Nominal Value	B	±0.1nH	T	Tape & Reel
3N0	3.0nH	C	±0.2nH		
16N	16nH	S	±0.3nH	7	Customer Code
※R=decimal point, N=nH		H	±3%	S01	
		J	±5%		

Shape and Dimensions



Type	L	W	T	a
SDCL0402H-S01 [01005]	0.4 ± 0.02 [.016 ± .0008]	0.2 ± 0.02 [.008 ± .0008]	0.2 ± 0.02 [.008 ± .0008]	0.095 ± 0.025 [.0037 ± .0010]

Unit mm [inch]

Specifications

SDCL0402H-S01 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	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
SDCL0402H0N2 □ TS01	0.2	-	500	12	16	22	26	38	13000	0.4	320
SDCL0402H0N3 □ TS01	0.3	-	500	12	15	22	25	36	13000	0.4	320
SDCL0402H0N4 □ TS01	0.4	8	500	11	14	21	22	24	13000	0.4	320
SDCL0402H0N5 □ TS01	0.5	8	500	10	13	21	23	25	13000	0.4	320
SDCL0402H0N6 □ TS01	0.6	8	500	12	14	20	23	25	13000	0.4	320
SDCL0402H0N7 □ TS01	0.7	8	500	11	13	21	22	24	13000	0.4	320
SDCL0402H0N8 □ TS01	0.8	8	500	10	12	20	21	23	13000	0.4	320
SDCL0402H0N9 □ TS01	0.9	8	500	11	13	20	22	24	13000	0.4	320
SDCL0402H1N0 □ TS01	1	8	500	10	12	19	21	23	11500	0.4	220
SDCL0402H1N1 □ TS01	1.1	8	500	11	13	19	22	24	11500	0.4	220
SDCL0402H1N2 □ TS01	1.2	8	500	10	12	20	21	23	11500	0.4	220
SDCL0402H1N3 □ TS01	1.3	8	500	10	12	19	21	23	11500	0.4	220
SDCL0402H1N4 □ TS01	1.4	8	500	11	13	20	21	23	11500	0.4	220
SDCL0402H1N5 □ TS01	1.5	8	500	10	13	19	21	24	11500	0.4	220
SDCL0402H1N6 □ TS01	1.6	8	500	10	12	19	21	23	11500	0.4	220
SDCL0402H1N7 □ TS01	1.7	8	500	11	13	20	21	24	9500	0.5	200
SDCL0402H1N8 □ TS01	1.8	8	500	10	12	19	21	23	9000	0.5	200
SDCL0402H1N9 □ TS01	1.9	8	500	10	12	20	21	23	9000	0.5	200
SDCL0402H2N0 □ TS01	2	8	500	11	12	19	21	23	9000	0.5	200
SDCL0402H2N1 □ TS01	2.1	8	500	10	12	19	22	24	9000	0.5	200
SDCL0402H2N2 □ TS01	2.2	8	500	9.5	11	18	20	22	7500	0.55	200
SDCL0402H2N3 □ TS01	2.3	8	500	10	12	19	21	23	7500	0.55	200
SDCL0402H2N4 □ TS01	2.4	8	500	10	12	19	21	23	7500	0.55	200
SDCL0402H2N5 □ TS01	2.5	8	500	9.5	11	18	20	22	7500	0.6	200
SDCL0402H2N6 □ TS01	2.6	8	500	11	12	19	21	23	7500	0.6	200
SDCL0402H2N7 □ TS01	2.7	8	500	10	12	19	22	24	7500	0.6	200
SDCL0402H2N8 □ TS01	2.8	8	500	10	12	19	21	23	7500	0.8	200
SDCL0402H2N9 □ TS01	2.9	8	500	10	12	19	21	23	7500	0.8	200
SDCL0402H3N0 □ TS01	3	8	500	10	12	19	20	23	7500	0.9	200
SDCL0402H3N1 □ TS01	3.1	8	500	10	13	19	20	22	7500	0.9	200
SDCL0402H3N2 □ TS01	3.2	8	500	9	11	19	20	22	7500	0.9	180
SDCL0402H3N3 □ TS01	3.3	8	500	10	13	19	20	23	7500	0.9	180
SDCL0402H3N4 □ TS01	3.4	8	500	10	12	19	21	23	7500	1	180
SDCL0402H3N5 □ TS01	3.5	8	500	10	13	19	21	24	7500	1	180
SDCL0402H3N6 □ TS01	3.6	8	500	11	12	19	21	23	7500	1	180
SDCL0402H3N7 □ TS01	3.7	8	500	10	12	19	21	23	7500	1	180
SDCL0402H3N8 □ TS01	3.8	8	500	10	12	19	21	23	7500	1	180
SDCL0402H3N9 □ TS01	3.9	8	500	9	11	19	20	22	7500	1	180
SDCL0402H4N0 □ TS01	4	8	500	10	12	19	21	23	7500	1.1	180
SDCL0402H4N1 □ TS01	4.1	8	500	11	12	19	21	24	7500	1.1	180
SDCL0402H4N2 □ TS01	4.2	8	500	10	12	18	20	22	7500	1.1	180
SDCL0402H4N3 □ TS01	4.3	8	500	10	13	19	21	24	7500	1.1	180
SDCL0402H4N7 □ TS01	4.7	8	500	9	11	19	20	22	6500	1.2	160
SDCL0402H5N1 □ TS01	5.1	8	500	10	12	18	19	22	6500	1.3	160
SDCL0402H5N6 □ TS01	5.6	8	500	10	12	17	22	24	6000	1.5	140
SDCL0402H6N2 □ TS01	6.2	8	500	10	11	18	20	23	5500	1.6	140
SDCL0402H6N8 □ TS01	6.8	8	500	10	11	17	20	23	5500	1.8	140
SDCL0402H7N5 □ TS01	7.5	8	500	10	13	17	22	24	4500	1.8	140
SDCL0402H8N2 □ TS01	8.2	8	500	10	12	18	20	22	4500	2	140
SDCL0402H9N1 □ TS01	9.1	8	500	10	13	17	21	23	4000	2	140
SDCL0402H10N □ TS01	10	8	500	9	12	18	20	21	4000	2.2	140
SDCL0402H11N □ TS01	11	8	500	9	12	18	19	20	4000	2.4	140

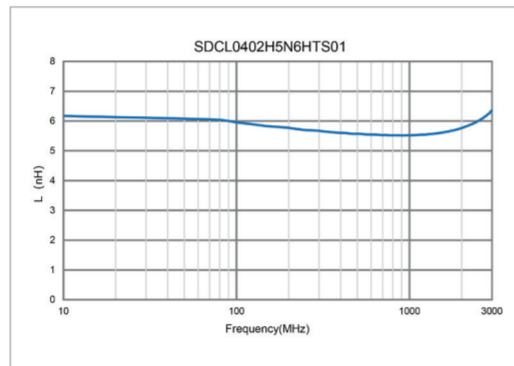
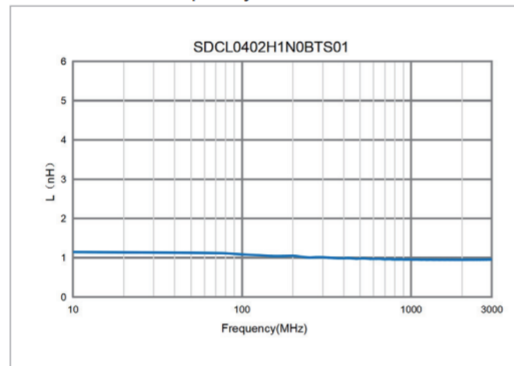
Specifications

SDCL0402H-S01 Series

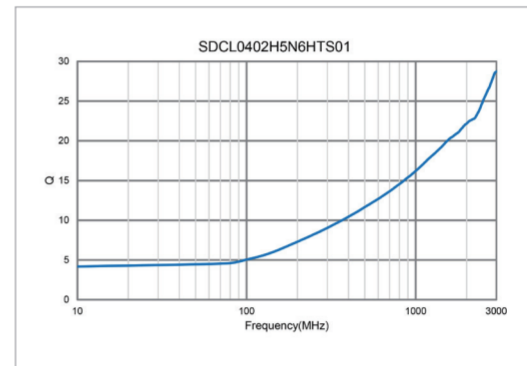
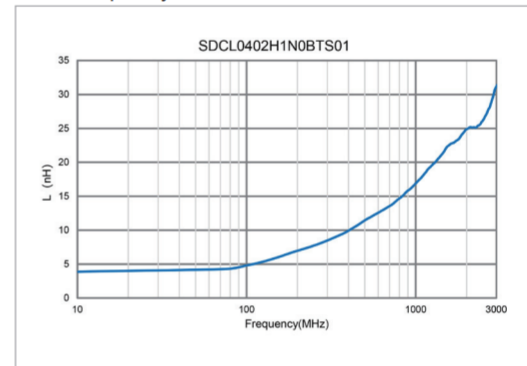
Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)					Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.5	0.8	1.8	2	2.4			
Units	nH	-	MHz	-					MHz	Ω	mA
Symbol	L	Q	Freq.	Q					S.R.F	DCR	I _r
SDCL0402H12N □ TS01	12	8	500	9	12	17	18	18	4000	2.4	140
SDCL0402H13N □ TS01	13	7	500	8	12	17	18	18	3500	3	140
SDCL0402H15N □ TS01	15	7	500	8	12	16	15	14	3000	3	140
SDCL0402H16N □ TS01	16	7	500	8	11	13	12	11	2500	3.2	140
SDCL0402H18N □ TS01	18	7	500	7.5	10	12	10	9	2500	3.2	140
SDCL0402H20N □ TS01	20	6	500	7	9	11	9	7	2500	4.5	120
SDCL0402H22N □ TS01	22	6	500	7	10	10	9	7	2300	5	120
SDCL0402H24N □ TS01	24	6	500	8	11	10	9	6	2000	5.5	120
SDCL0402H27N □ TS01	27	6	500	8	10	8	7	-	2000	5.5	120
SDCL0402H30N □ TS01	30	6	500	7	9	7	-	-	1800	6.5	90
SDCL0402H33N □ TS01	33	6	300	8	9	7	-	-	1800	6.5	90

※ □ : Please specify the inductance tolerance. For L≤4.2nH, choose B=±0.1nH, C=±0.2nH or S=±0.3nH; For L≥4.3nH, choose H=±3%, J=±5%.
 ※: Please refer to "Measurement Notice For RF Inductors".

Typical Electrical Characteristics

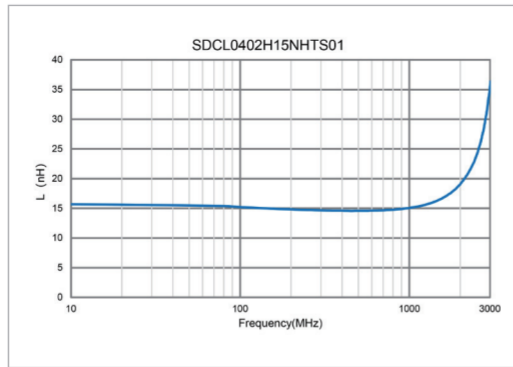
SDCL0402H-S01 Series
Inductance vs. Frequency Characteristics

Q vs. Frequency Characteristics



Typical
Electrical
Characteristics

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

