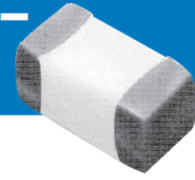


Multilayer Chip High Frequency Inductor – SDHL Series



SDHL1005 Operating temp. : $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

SDHL1608 Operating temp. : $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

FEATURES

- ◆ Higher self-resonant frequency than SDCL series inductors
- ◆ Ultra miniature size and light weight
- ◆ No polarity
- ◆ Excellent solderability and high heat resistance

APPLICATIONS

- ◆ Bluetooth module
- ◆ RF module of telecommunication products, such as mobile phone, Two-Way Radios, etc.
- ◆ Power AMP module
- ◆ Computer communications, radar detectors

PRODUCT IDENTIFICATION

1	2	3	4	5	6	7	8
SDHL	1005	C	10N	J	T	D	F

1	Type
SDHL	Chip High Freq. Inductor

2	External Dimensions (L×W) (mm)	
	1005 [0402]	1.0×0.5
	1608 [0603]	1.6×0.8

3	Material Code
	C

4	Nominal Inductance	
Example	Nominal Value	
1N0	1.0nH	
10N	10nH	
R10	100nH	

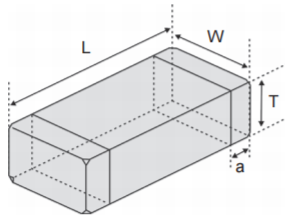
5	Inductance Tolerance	
C	$\pm 0.2\text{nH}$	
S	$\pm 0.3\text{nH}$	
J	$\pm 5\%$	
K	$\pm 10\%$	

7	Internal Code
	D

6	Packing	
T	Tape & Reel	

8	Hazardous Substance Free Products
	F

SHAPE AND DIMENSIONS



Type	L	W	T	a
SDHL1005 [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]
SDHL1608 [0603]	1.6±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.15 [.031±.006]	0.3±0.2 [.012±.008]

Unit: mm [inch]

SPECIFICATIONS SDHL1005 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
				0.1	0.3	0.5	0.8	1	1.8			
Units	nH	-	MHz	-						MHz	Ω	mA
Symbol	L	Q	Freq	Q						S.R.F	DCR	I _r
SDHL1005C1N0 □ TDF	1.0	5	100	9	16	20	25	28	31	>8500	0.10	500
SDHL1005C1N2 □ TDF	1.2	5	100	9	15	18	24	27	31	>8500	0.12	500
SDHL1005C1N5 □ TDF	1.5	5	100	7	12	16	20	21	29	>8500	0.15	500
SDHL1005C1N8 □ TDF	1.8	5	100	7	12	16	20	21	29	>8500	0.17	500
SDHL1005C2N2 □ TDF	2.2	5	100	7	12	16	20	21	30	>8500	0.17	500
SDHL1005C2N7 □ TDF	2.7	5	100	7	12	16	20	21	29	>8500	0.20	500
SDHL1005C3N3 □ TDF	3.3	5	100	7	12	15	19	20	27	>8500	0.22	400
SDHL1005C3N9 □ TDF	3.9	5	100	7	12	15	20	21	28	7500	0.25	400
SDHL1005C4N7 □ TDF	4.7	5	100	7	12	15	19	20	27	6500	0.28	400
SDHL1005C5N6 □ TDF	5.6	5	100	8	12	15	20	22	30	6500	0.30	400
SDHL1005C6N8 □ TDF	6.8	5	100	8	12	15	20	22	30	6500	0.35	400
SDHL1005C8N2 □ TDF	8.2	5	100	8	12	15	19	21	30	6500	0.38	350
SDHL1005C10N □ TDF	10	5	100	8	13	16	21	23	32	4700	0.42	350
SDHL1005C12N □ TDF	12	5	100	8	13	16	20	23	27	4300	0.47	350
SDHL1005C15N □ TDF	15	5	100	8	12	15	19	22	28	4000	0.50	300
SDHL1005C18N □ TDF	18	5	100	8	13	16	21	24	32	4000	0.60	250
SDHL1005C22N □ TDF	22	5	100	8	13	17	22	26	31	3500	0.70	200
SDHL1005C27N □ TDF	27	5	100	8	14	18	23	26	32	3000	0.80	200
SDHL1005C33N □ TDF	33	5	100	8	14	17	23	27	32	2500	0.90	200
SDHL1005C39N □ TDF	39	5	100	8	14	18	23	27	32	2000	1.00	200
SDHL1005C47N □ TDF	47	7	100	9	14	18	22	24	29	2400	2.20	100
SDHL1005C56N □ TDF	56	7	100	9	14	18	23	24	29	2300	2.50	100
SDHL1005C68N □ TDF	68	7	100	9	14	17	22	24	29	2200	2.70	100
SDHL1005C82N □ TDF	82	7	100	8	13	17	20	20	16	2100	2.90	100
SDHL1005CR10 □ TDF	100	7	100	8	13	17	20	20	13	2000	3.20	100

※ □: Please specify the inductance tolerance: For L≤6.2nH, choose C=±0.2nH or S=±0.3nH; For L>6.2nH, choose J=±5% or K=±10%.

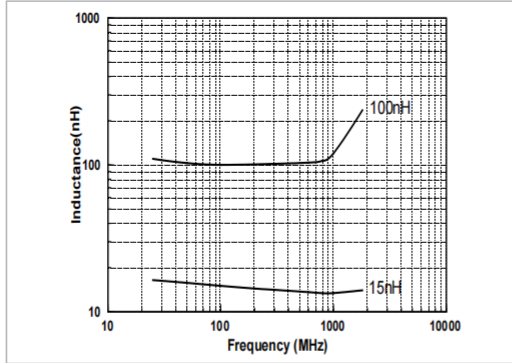
SDHL1608 Series

Part Number	Inductance	Min. Quality Factor	L, Q Test Freq.	Typical Q @ Freq. (GHz)						Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
				0.1	0.3	0.5	0.8	1	1.8			
Units	nH	-	MHz	-						MHz	Ω	mA
Symbol	L	Q	Freq	Q						S.R.F	DCR	I _r
SDHL1608C10N □ TDF	10	8	100	10	22	28	35	39	45	>6000	0.60	500
SDHL1608C12N □ TDF	12	8	100	10	18	23	26	32	42	6000	0.70	500
SDHL1608C15N □ TDF	15	8	100	12	22	28	35	39	42	5500	0.80	500
SDHL1608C18N □ TDF	18	8	100	10	18	22	25	30	43	5200	0.90	300
SDHL1608C22N □ TDF	22	8	100	12	21	27	34	37	37	5000	1.00	300
SDHL1608C27N □ TDF	27	8	100	10	18	24	26	32	38	4800	1.20	300
SDHL1608C33N □ TDF	33	8	100	12	21	27	33	35	31	4500	1.40	300
SDHL1608C39N □ TDF	39	8	100	11	20	26	32	34	29	4000	1.50	200
SDHL1608C47N □ TDF	47	8	100	12	20	26	31	34	27	3500	1.60	200
SDHL1608C56N □ TDF	56	8	100	11	20	26	31	34	24	3000	1.80	200
SDHL1608C68N □ TDF	68	8	100	10	18	21	24	28	20	2800	2.00	200
SDHL1608C82N □ TDF	82	8	100	10	19	22	26	26	15	2500	2.20	200
SDHL1608CR10 □ TDF	100	8	100	10	19	24	27	25	-	2000	2.50	150
SDHL1608CR12 □ TDF	120	8	100	10	19	23	26	24	-	1600	2.80	150
SDHL1608CR15 □ TDF	150	8	100	10	18	24	26	23	-	1400	3.00	150
SDHL1608CR18 □ TDF	180	8	100	10	17	22	23	-	-	1000	3.40	150

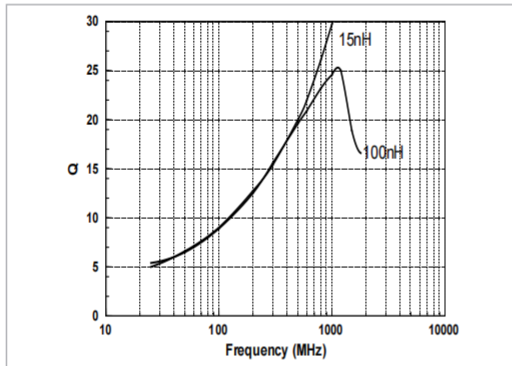
※ □: Please specify the inductance tolerance: J=±5% or K=±10%

TYPICAL ELECTRICAL CHARACTERISTICS

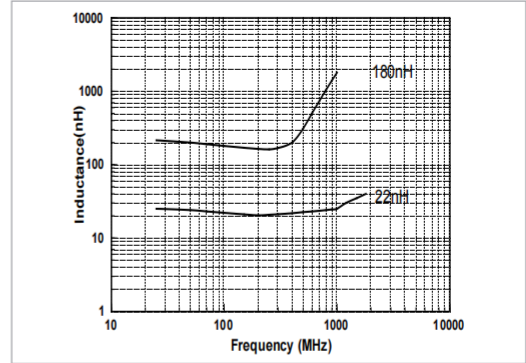
SDHL1005 Series
Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



SDHL1608 Series
Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

