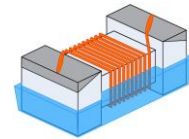


# Wire Wound Chip Ceramic Inductor -SDWL-CP Series

Operating Temp. : -40°C~+125°C



## FEATURES

- Small chip suitable for surface mounting
- High Q value and high self-resonant frequency with ceramic material
- Tight inductance tolerance and stable inductance at high frequency
- Lower DCR, higher Q and larger current than SDWL-C series
- Inductance of SDWL-CH series is larger than SDWL-CP series

## APPLICATIONS

- High frequency circuit in telecommunication and other equipments
- Mobile phones and other electronic devices
- Bluetooth, W-LAN, Broadband network

## PRODUCT IDENTIFICATION

**SDWL**

①

**1608**

②

**C**

③

**P**

④

**10N**

⑤

**J**

⑥

**S**

⑦

**T**

⑧

**F**

⑨

①

Type	
SDWL	Wire Wound Chip Inductor

②

External Dimensions	
1608 [0603]	
2012[0805]	

③

Material Code	
C	Ceramic

④

Feature Type	
P	Large Current & High Q
H	Large Inductance & Large Current & High Q

⑤

Nominal Inductance	
Example	Nominal Value
10N	10nH
R10	100nH
1R0	1.0μH

⑥

Inductance Tolerance	
B	±0.1nH
C	±0.2nH
S	±0.3nH
D	±0.5nH
G	±2%
H	±3%
J	±5%
K	±10%

⑦

Feature Type	
S	Sn Plating Five-faces Coating

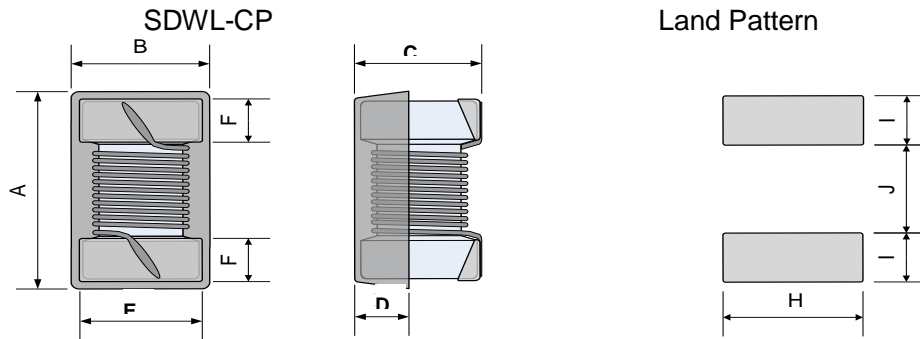
⑧

Packing	
T	Tape & Reel

⑨

Hazardous Substance Free Products	
F	

## SHAPE AND DIMENSIONS



Unit: mm

Series	A	B	C	D Ref.	E	F	H Ref.	I Ref.	J Ref.
SDWL1608CP	1.70±0.2	1.1±0.2	0.9±0.2	0.38	0.76±0.1	0.3±0.1	1.02	0.64	0.64
SDWL2012CP	2.4 Max.	1.8 Max.	1.5 Max.	0.51	1.55±0.1	0.3±0.1	1.98	1.02	1.12

## SPECIFICATIONS

### SDWL1608CP TYPE

Part Number	Inductance	Tolerance	Quality Factor Typ.	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I <sub>r</sub>
SDWL1608CP1N8□STF	1.8	S,D,K	23	250/250	16.0	0.033	2100
SDWL1608CP2N2□STF	2.2	C,S,D,J,K	13	250/250	15.0	0.23	900
SDWL1608CP3N3□STF	3.3	C,S,D,J,K	32	250/250	9.60	0.03	1900
SDWL1608CP3N6□STF	3.6	C,S,D,J,K	40	250/250	9.70	0.031	1900
SDWL1608CP3N9□STF	3.9	C,S,D,J,K	35	250/250	7.50	0.039	1600
SDWL1608CP4N3□STF	4.3	C,S,D,J,K	30	250/250	7.50	0.08	1300
SDWL1608CP4N7□STF	4.7	D,K	26	250/250	7.90	0.1	1100
SDWL1608CP5N1□STF	5.1	C,S,D,J,K	40	250/250	8.90	0.036	1700
SDWL1608CP5N6□STF	5.6	B,C,S,D,J,K	48	250/250	6.60	0.04	1700
SDWL1608CP6N0□STF	6.0	C,S,D,J,K	49	250/250	6.00	0.04	1700
SDWL1608CP6N8□STF	6.8	G,H,J,K	42	250/250	5.80	0.042	1400
SDWL1608CP7N2□STF	7.2	G,H,J,K	43	250/250	5.40	0.07	1400
SDWL1608CP7N5□STF	7.5	G,H,J,K	41	250/250	5.30	0.08	1300
SDWL1608CP8N2□STF	8.2	G,H,J,K	46	250/250	5.90	0.054	1400
SDWL1608CP8N7□STF	8.7	G,H,J,K	46	250/250	5.50	0.054	1400
SDWL1608CP9N1□STF	9.1	G,H,J,K	40	250/250	5.10	0.058	1400
SDWL1608CP9N5□STF	9.5	G,H,J,K	49	250/250	4.90	0.053	1400
SDWL1608CP10N□STF	10	G,H,J,K	49	250/250	4.30	0.048	1400
SDWL1608CP11N□STF	11	G,H,J,K	41	250/250	4.10	0.065	1400
SDWL1608CP12N□STF	12	G,H,J,K	37	250/250	4.10	0.115	1100
SDWL1608CP15N□STF	15	G,H,J,K	48	250/250	3.60	0.078	1200
SDWL1608CP16N□STF	16	G,H,J,K	48	250/250	3.50	0.085	1100
SDWL1608CP18N□STF	18	G,H,J,K	41	250/250	3.30	0.07	1200
SDWL1608CP19N□STF	19	G,H,J,K	32	250/250	3.20	0.11	1000
SDWL1608CP22N□STF	22	G,H,J,K	44	250/250	3.15	0.14	850
SDWL1608CP23N□STF	23	G,H,J,K	40	250/250	3.00	0.183	850
SDWL1608CP24N□STF	24	G,H,J,K	42	250/250	2.95	0.085	1100
SDWL1608CP27N□STF	27	G,H,J,K	44	250/250	2.80	0.2	780
SDWL1608CP30N□STF	30	G,H,J,K	49	250/250	2.80	0.16	920
SDWL1608CP33N□STF	33	G,H,J,K	45	250/250	2.70	0.22	680

## SPECIFICATIONS

### SDWL1608CP TYPE

Part Number	Inductance	Tolerance	Quality Factor Typ.	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL1608CP36N□STF	36	G,H,J,K	44	250/250	2.50	0.225	720
SDWL1608CP39N□STF	39	G,H,J,K	44	250/250	2.45	0.25	680
SDWL1608CP43N□STF	43	G,H,J,K	45	250/250	2.45	0.225	810
SDWL1608CP47N□STF	47	G,H,J,K	47	200/250	2.30	0.24	680
SDWL1608CP51N□STF	51	G,H,J,K	45	200/250	2.30	0.28	660
SDWL1608CP56N□STF	56	G,H,J,K	45	200/250	2.20	0.3	610
SDWL1608CP68N□STF	68	G,H,J,K	46	200/250	2.00	0.35	600
SDWL1608CP72N□STF	72	G,H,J,K	46	150/250	1.90	0.42	550
SDWL1608CP75N□STF	75	G,H,J,K	46	150/250	1.90	0.52	500
SDWL1608CP82N□STF	82	G,H,J,K	45	150/250	1.80	0.46	510
SDWL1608CP91N□STF	91	G,H,J,K	45	150/250	1.65	0.58	440
SDWL1608CPR10□STF	100	G,H,J,K	49	150/250	1.70	0.54	470
SDWL1608CPR11□STF	110	G,H,J,K	47	150/250	1.60	0.58	440
SDWL1608CPR12□STF	120	G,H,J,K	47	150/250	1.55	0.72	420
SDWL1608CPR15□STF	150	J,K	47	150/250	1.35	0.82	390
SDWL1608CPR18□STF	180	G,H,J,K	48	100/250	1.30	1.5	310
SDWL1608CPR20□STF	200	G,H,J,K	47	100/250	1.25	2	280
SDWL1608CPR21□STF	210	G,H,J,K	48	100/250	1.20	2	280
SDWL1608CPR22□STF	220	G,H,J,K	47	100/250	1.10	2	280
SDWL1608CPR25□STF	250	G,H,J,K	45	100/250	1.05	3	240
SDWL1608CPR27□STF	270	G,H,J,K	46	100/250	1.05	2.25	260
SDWL1608CPR30□STF	300	G,H,J,K	47	100/250	0.99	2.8	220
SDWL1608CPR33□STF	330	G,H,J,K	46	100/250	0.93	3.6	180
SDWL1608CPR36□STF	360	G,H,J,K	47	100/250	0.93	4.6	170
SDWL1608CPR39□STF	390	G,H,J,K	47	100/250	0.88	4.77	170

### SDWL2012CP TYPE

Part Number	Inductance	Tolerance	Quality Factor Typ.	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
SDWL2012CP2N6□STF	2.6	J	100	250/1500	9500	0.015	2000
SDWL2012CP6N2□STF	6.2	J	104	250/1000	7200	0.027	1500
SDWL2012CP6N8□STF	6.8	J	90	250/1000	6000	0.066	1300
SDWL2012CP11N□STF	11	G,J	93	250/500	4750	0.039	1600
SDWL2012CP12N□STF	12	G,J	91	250/500	4425	0.039	1400
SDWL2012CP13N□STF	13	G,J	91	250/500	4100	0.039	1400
SDWL2012CP18N□STF	18	G,J	95	250/500	3650	0.05	1200
SDWL2012CP33N□STF	33	G,J	100	250/500	2410	0.087	1100
SDWL2012CP47N□STF	47	G,J	105	200/500	2170	0.093	1000
SDWL2012CP56N□STF	56	G,J	100	200/500	1815	0.122	950
SDWL2012CP82N□STF	82	G,J	103	150/500	1525	0.168	820
SDWL2012CPR10□STF	100	G,J	100	150/500	1400	0.22	720
SDWL2012CPR12□STF	120	G,J	80	150/250	1265	0.293	620
SDWL2012CPR15□STF	150	G,J	80	100/250	1150	0.288	600

# SPECIFICATIONS

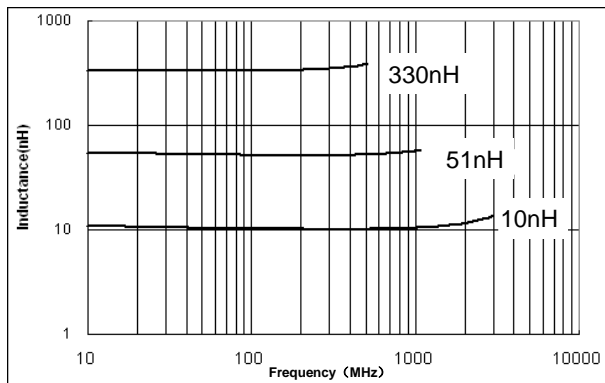
Part Number	Inductance	Tolerance	Quality Factor Typ.	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	GHz	$\Omega$	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I <sub>r</sub>
SDWL2012CPR18□STF	180	G,J	77	100/250	1025	0.374	540
SDWL2012CPR22□STF	220	G,J	75	100/250	930	0.426	500
SDWL2012CPR27□STF	270	G,J	75	100/250	830	0.754	420
SDWL2012CPR33□STF	330	G,J	54	100/100	770	1.004	360
SDWL2012CPR39□STF	390	G,J	52	100/100	700	1.11	330
SDWL2012CPR43□STF	430	G,J	46	100/100	680	1.488	300
SDWL2012CPR47□STF	470	G,J	52	50/100	640	1.559	280
SDWL2012CPR56□STF	560	G,J	46	25/100	550	2.067	240
SDWL2012CPR68□STF	680	G,J	46	25/100	535	2.355	210
SDWL2012CPR82□STF	820	G,J	50	25/100	485	3.945	180

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

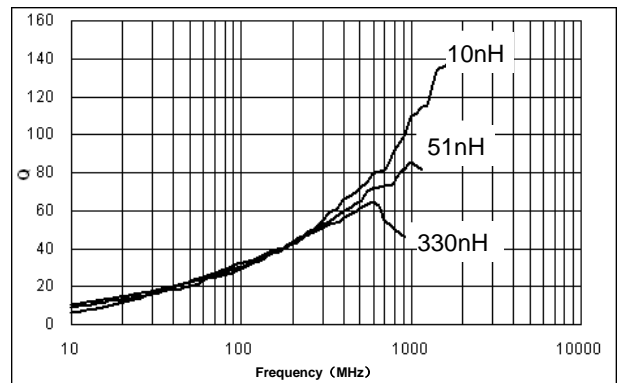
## TYPICAL ELECTRICAL CHARACTERISTICS

### SDWL1608CP TYPE

Inductance vs. Frequency Characteristics

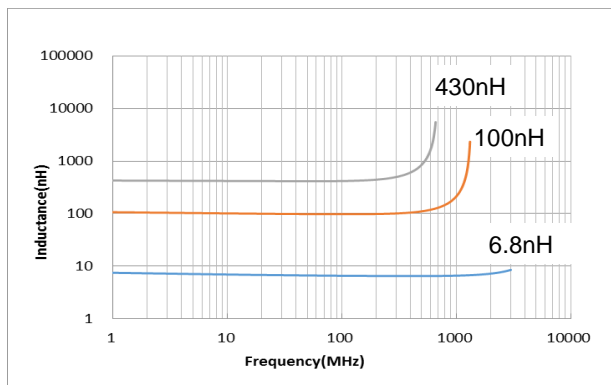


Q vs. Frequency Characteristics



### SDWL2012CP TYPE

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics

