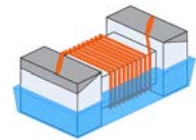


# Wire Wound Chip Ceramic Inductor - SDWL-C-M Series

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 high reliability

## APPLICATIONS

- High frequency circuit in telecommunication and other equipments
- Mobile phones such as GSM, CDMA, PDC, etc.
- Bluetooth, W-LAN, Broadband network

## PRODUCT IDENTIFICATION

**SDWL**    **1005**    **C**    **10N**    **J**    **S**    **T**    **F**    **M01**  
 ①                      ②                      ③                      ④                      ⑤                      ⑥                      ⑦                      ⑧                      ⑨

①

Type	
SDWL	Wire Wound Chip Inductor

②

External Dimensions	
1005 [0402]	
1608 [0603]	

③

Material Code	
C	Ceramic

④

Nominal Inductance	
Example	Nominal Value
4N7	4.7nH
10N	10nH
R10	100nH

⑤

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

⑥

Feature Type	
S	Sn Plating Five-faces Coating

⑦

Packing	
T	Tape & Reel

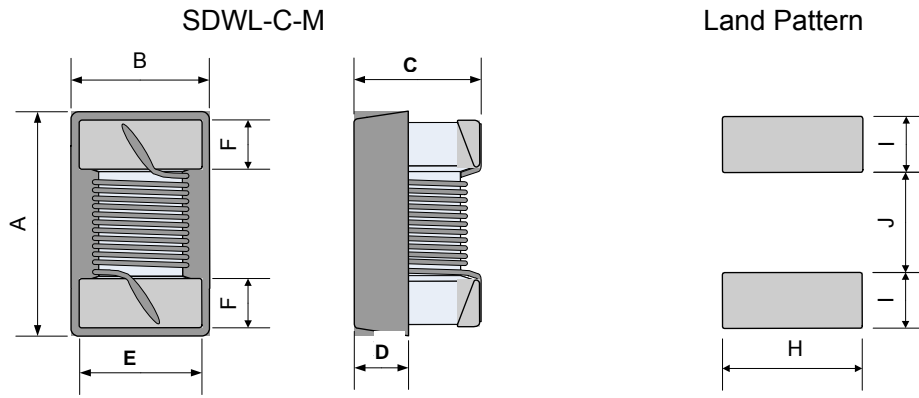
⑧

Hazardous Substance Free Products	
F	

⑨

Internal Code	
M01/M11	Internal Code

## SHAPE AND DIMENSIONS



Unit: mm

Series	A	B	C	D Typ.	E	F	H Typ.	I Typ.	J Typ.
SDWL1005C-M	1.1±0.1	0.6±0.1	0.6±0.1	0.20	0.5±0.1	0.2±0.1	0.65	0.35	0.50
SDWL1608C-M	1.6±0.2	0.9±0.2	0.8±0.2	0.38	0.8±0.15	0.3±0.1	1.02	0.64	0.64

## SPECIFICATIONS

### SDWL1005C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1005C1N5□STFM01	1.5	B,C,D	10	100/250	0.03	1000	>6000
SDWL1005C1N6□STFM01	1.6	C,D	10	100/250	0.07	750	>6000
SDWL1005C1N7□STFM01	1.7	C,D	10	100/250	0.10	640	>6000
SDWL1005C1N8□STFM01	1.8	C,D	10	100/250	0.16	460	>6000
SDWL1005C2N4□STFM01	2.4	B,C,D	20	100/250	0.05	850	>6000
SDWL1005C2N5□STFM01	2.5	B,C,D	20	100/250	0.05	850	>6000
SDWL1005C2N6□STFM01	2.6	B,C,D	20	100/250	0.05	850	>6000
SDWL1005C2N7□STFM01	2.7	B,C,D	20	100/250	0.05	850	>6000
SDWL1005C2N8□STFM01	2.8	B,C,D	20	100/250	0.05	850	>6000
SDWL1005C2N9□STFM01	2.9	B,C,D	20	100/250	0.07	750	>6000
SDWL1005C3N0□STFM01	3.0	B,C,D	20	100/250	0.07	750	>6000
SDWL1005C3N1□STFM01	3.1	B,C,D	20	100/250	0.13	570	>6000
SDWL1005C3N2□STFM01	3.2	B,C,D	15	100/250	0.17	500	>6000
SDWL1005C3N9□STFM01	3.9	C,D	25	100/250	0.07	750	>6000
SDWL1005C4N1□STFM01	4.1	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N3□STFM01	4.3	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N4□STFM01	4.4	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N5□STFM01	4.5	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N6□STFM01	4.6	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N7□STFM01	4.7	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N8□STFM01	4.8	B,C,D	25	100/250	0.07	750	>6000
SDWL1005C4N9□STFM01	4.9	B,C,D	25	100/250	0.12	600	>6000
SDWL1005C5N0□STFM01	5.0	B,C,D	25	100/250	0.12	600	>6000
SDWL1005C5N1□STFM01	5.1	B,C,D	25	100/250	0.12	600	>6000
SDWL1005C5N8□STFM01	5.8	B,C,D	25	100/250	0.12	700	>6000
SDWL1005C6N2□STFM01	6.2	B,C,D	25	100/250	0.09	700	>6000
SDWL1005C6N3□STFM01	6.3	B,C,D	25	100/250	0.09	700	6000
SDWL1005C6N4□STFM01	6.4	B,C,D	25	100/250	0.09	700	6000
SDWL1005C6N5□STFM01	6.5	B,C,D	25	100/250	0.09	700	6000
SDWL1005C6N6□STFM01	6.6	B,C,D	25	100/250	0.09	700	6000

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# SPECIFICATIONS

## SDWL1005C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	Ω	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1005C6N7□STFM01	6.7	B,C,D	25	100/250	0.09	700	6000
SDWL1005C6N8□STFM01	6.8	G,H,J	25	100/250	0.09	700	6000
SDWL1005C6N9□STFM01	6.9	G,H,J	25	100/250	0.13	570	6000
SDWL1005C7N0□STFM01	7.0	G,H,J	25	100/250	0.13	570	6000
SDWL1005C7N1□STFM01	7.1	G,H,J	25	100/250	0.13	570	6000
SDWL1005C7N2□STFM01	7.2	G,H,J	25	100/250	0.13	570	6000
SDWL1005C7N3□STFM01	7.3	G,H,J	25	100/250	0.13	570	6000
SDWL1005C7N5□STFM01	7.5	G,H,J	25	100/250	0.13	570	6000
SDWL1005C8N2□STFM01	8.2	G,H,J	25	100/250	0.14	540	5500
SDWL1005C8N6□STFM01	8.6	G,H,J	25	100/250	0.14	540	5500
SDWL1005C8N7□STFM01	8.7	G,H,J	25	100/250	0.14	540	5500
SDWL1005C8N8□STFM01	8.8	G,H,J	25	100/250	0.14	540	5500
SDWL1005C8N9□STFM01	8.9	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N0□STFM01	9.0	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N1□STFM01	9.1	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N2□STFM01	9.2	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N3□STFM01	9.3	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N4□STFM01	9.4	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N5□STFM01	9.5	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N6□STFM01	9.6	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N7□STFM01	9.7	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N8□STFM01	9.8	G,H,J	25	100/250	0.14	540	5500
SDWL1005C9N9□STFM01	9.9	G,H,J	25	100/250	0.14	540	5500
SDWL1005C10N□STFM01	10	G,H,J	25	100/250	0.17	500	5500
SDWL1005C11N□STFM01	11	G,H,J	30	100/250	0.14	500	5500
SDWL1005C12N□STFM01	12	G,H,J	30	100/250	0.14	500	5500
SDWL1005C13N□STFM01	13	G,H,J	25	100/250	0.21	430	5000
SDWL1005C15N□STFM01	15	G,H,J	30	100/250	0.16	460	5000
SDWL1005C16N□STFM01	16	G,H,J	25	100/250	0.24	370	4500
SDWL1005C18N□STFM01	18	G,H,J	25	100/250	0.27	370	4500
SDWL1005C19N□STFM01	19	G,H,J	25	100/250	0.27	370	4500
SDWL1005C20N□STFM01	20	G,H,J	25	100/250	0.27	370	4000
SDWL1005C22N□STFM01	22	G,H,J	25	100/250	0.30	310	4000
SDWL1005C23N□STFM01	23	G,H,J	25	100/250	0.30	310	3800
SDWL1005C24N□STFM01	24	G,H,J	25	100/250	0.52	280	3500
SDWL1005C27N□STFM01	27	G,H,J	25	100/250	0.52	280	3500
SDWL1005C30N□STFM01	30	G,H,J	25	100/250	0.58	270	3300
SDWL1005C33N□STFM01	33	G,H,J	25	100/250	0.63	260	3200
SDWL1005C36N□STFM01	36	G,H,J	25	100/250	0.63	260	3100
SDWL1005C39N□STFM01	39	G,H,J	25	100/250	0.70	250	3000
SDWL1005C40N□STFM01	40	G,H,J	25	100/250	0.70	250	3000
SDWL1005C43N□STFM01	43	G,H,J	25	100/250	0.70	250	3000
SDWL1005C47N□STFM01	47	G,H,J	25	100/200	1.08	210	2900
SDWL1005C51N□STFM01	51	G,H,J	25	100/200	1.08	210	2850
SDWL1005C56N□STFM01	56	G,H,J	25	100/200	1.17	200	2800
SDWL1005C62N□STFM01	62	G,H,J	20	100/200	1.82	145	2600
SDWL1005C68N□STFM01	68	G,H,J	20	100/200	1.96	140	2500
SDWL1005C72N□STFM01	72	G,H,J	20	100/150	2.10	135	2500



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## SPECIFICATIONS

### SDWL1005C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1005C75N□STFM01	75	G,H,J	20	100/150	2.10	135	2400
SDWL1005C82N□STFM01	82	G,H,J	20	100/150	2.24	130	2300
SDWL1005C91N□STFM01	91	G,H,J	20	100/150	2.38	125	2100
SDWL1005CR10□STFM01	100	G,H,J	20	100/150	2.52	120	1500
SDWL1005CR12□STFM01	120	G,H,J	20	100/150	2.66	110	1000

### SDWL1005C-M11 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1005C1N3□STFM11	1.3	C,D	20	100/250	0.017	1200	>6000
SDWL1005C2N2□STFM11	2.2	C,D	25	100/250	0.027	1000	>6000
SDWL1005C2N4□STFM11	2.4	C,D	25	100/250	0.027	1000	>6000
SDWL1005C3N3□STFM11	3.3	C,D	30	100/250	0.040	900	>6000
SDWL1005C3N4□STFM11	3.4	C,D	30	100/250	0.040	900	>6000
SDWL1005C3N6□STFM11	3.6	C,D	30	100/250	0.040	900	>6000
SDWL1005C3N9□STFM11	3.9	C,D	30	100/250	0.040	900	>6000
SDWL1005C4N7□STFM11	4.7	C,D	30	100/250	0.051	800	>6000
SDWL1005C5N1□STFM11	5.1	D	30	100/250	0.051	800	>6000
SDWL1005C5N6□STFM11	5.6	C,D	30	100/250	0.051	800	>6000

### SDWL1608C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1608C2N2□STFM01	2.2	C,D	16	100/250	0.049	700	6000
SDWL1608C3N6□STFM01	3.6	C,D	25	100/250	0.059	850	6000
SDWL1608C3N9□STFM01	3.9	C,D	35	100/250	0.059	850	6000
SDWL1608C4N3□STFM01	4.3	C,D	35	100/250	0.059	850	6000
SDWL1608C4N5□STFM01	4.5	C,D	35	100/250	0.059	850	6000
SDWL1608C4N7□STFM01	4.7	C,D	35	100/250	0.059	850	6000
SDWL1608C5N6□STFM01	5.6	C,D	35	100/250	0.082	750	6000
SDWL1608C6N2□STFM01	6.2	C,D	35	100/250	0.082	750	6000
SDWL1608C6N8□STFM01	6.8	C,D	35	100/250	0.082	750	6000
SDWL1608C7N5□STFM01	7.5	C,D	35	100/250	0.082	750	6000
SDWL1608C8N2□STFM01	8.2	C,D	35	100/250	0.11	650	6000
SDWL1608C8N7□STFM01	8.7	C,D	35	100/250	0.11	650	6000
SDWL1608C9N1□STFM01	9.1	C,D	35	100/250	0.11	650	6000
SDWL1608C9N5□STFM01	9.5	C,D	35	100/250	0.11	650	6000
SDWL1608C10N□STFM01	10	G,H,J	35	100/250	0.11	650	6000
SDWL1608C11N□STFM01	11	G,H,J	35	100/250	0.11	650	6000
SDWL1608C12N□STFM01	12	G,H,J	35	100/250	0.13	600	6000



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## SPECIFICATIONS

### SDWL1608C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
SDWL1608C13N□STFM01	13	G,H,J	35	100/250	0.13	600	6000
SDWL1608C15N□STFM01	15	G,H,J	40	100/250	0.13	600	6000
SDWL1608C16N□STFM01	16	G,H,J	40	100/250	0.16	550	5500
SDWL1608C18N□STFM01	18	G,H,J	40	100/250	0.16	550	5500
SDWL1608C20N□STFM01	20	G,H,J	40	100/250	0.16	550	4900
SDWL1608C22N□STFM01	22	G,H,J	40	100/250	0.17	500	4600
SDWL1608C24N□STFM01	24	G,H,J	40	100/250	0.21	500	3800
SDWL1608C27N□STFM01	27	G,H,J	40	100/250	0.21	440	3700
SDWL1608C30N□STFM01	30	G,H,J	40	100/250	0.23	420	3300
SDWL1608C33N□STFM01	33	G,H,J	40	100/250	0.23	420	3200
SDWL1608C36N□STFM01	36	G,H,J	40	100/250	0.26	400	2900
SDWL1608C39N□STFM01	39	G,H,J	40	100/250	0.26	400	2800
SDWL1608C43N□STFM01	43	G,H,J	40	100/200	0.29	380	2700
SDWL1608C47N□STFM01	47	G,H,J	38	100/200	0.29	380	2600
SDWL1608C51N□STFM01	51	G,H,J	38	100/200	0.33	370	2500
SDWL1608C56N□STFM01	56	G,H,J	38	100/200	0.35	360	2400
SDWL1608C62N□STFM01	62	G,H,J	38	100/200	0.51	280	2300
SDWL1608C68N□STFM01	68	G,H,J	38	100/200	0.38	340	2200
SDWL1608C72N□STFM01	72	G,H,J	34	100/150	0.56	270	2100
SDWL1608C75N□STFM01	75	G,H,J	34	100/150	0.56	270	2050
SDWL1608C82N□STFM01	82	G,H,J	34	100/150	0.60	250	2000
SDWL1608C91N□STFM01	91	G,H,J	34	100/150	0.64	230	1900
SDWL1608CR10□STFM01	100	G,H,J	34	100/150	0.68	220	1800
SDWL1608CR11□STFM01	110	G,H,J	32	100/150	1.2	200	1700
SDWL1608CR12□STFM01	120	G,H,J	32	100/150	1.3	180	1600
SDWL1608CR13□STFM01	130	G,H,J	32	100/150	1.4	170	1450
SDWL1608CR15□STFM01	150	G,H,J	32	100/150	1.5	160	1400
SDWL1608CR16□STFM01	160	G,H,J	32	100/150	2.1	150	1350
SDWL1608CR18□STFM01	180	G,H,J	25	100	2.2	140	1300
SDWL1608CR20□STFM01	200	G,H,J	25	100	2.4	120	1250
SDWL1608CR22□STFM01	220	G,H,J	25	100	2.5	120	1200
SDWL1608CR27□STFM01	270	G,H,J	30	100	3.4	110	960
SDWL1608CR33□STFM01	330	G,H,J	30	100	5.5	85	800
SDWL1608CR39□STFM01	390	G,H,J	30	100	6.2	80	800
SDWL1608CR47□STFM01	470	G,H,J	30	100	7.0	75	700

### SDWL1608C-M11 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	Ir	S.R.F
SDWL1608C2N2□STFM11	2.2	C,D	18	100/250	0.018	1400	>6000
SDWL1608C3N9□STFM11	3.9	C,D	38	100/250	0.032	1000	>6000
SDWL1608C5N6□STFM11	5.6	C,D	38	100/250	0.045	900	>6000
SDWL1608C6N8□STFM11	6.8	C,D	38	100/250	0.045	900	>6000
SDWL1608C8N2□STFM11	8.2	S,D	38	100/250	0.058	800	>6000



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# SPECIFICATIONS

## SDWL1608C-M11 TYPE

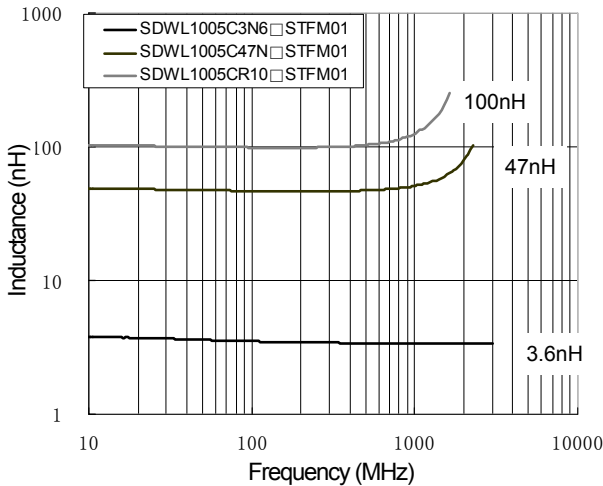
Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Min. Self-resonant Frequency
Units	nH	-	-	MHz	$\Omega$	mA	MHz
Symbol	L	-	Q	Freq.	DCR	I <sub>r</sub>	S.R.F
SDWL1608C10N□STFM11	10	G,H,J	38	100/250	0.070	800	5000
SDWL1608C12N□STFM11	12	G,H,J	38	100/250	0.071	750	5000
SDWL1608C15N□STFM11	15	G,H,J	42	100/250	0.085	700	4500
SDWL1608C18N□STFM11	18	G,H,J	42	100/250	0.085	700	3500
SDWL1608C22N□STFM11	22	G,H,J	42	100/250	0.099	640	3200
SDWL1608C27N□STFM11	27	G,H,J	42	100/250	0.116	590	2800
SDWL1608C33N□STFM11	33	J	42	100/250	0.132	550	2500

※ □: Please specify the inductance tolerance code (B=±0.1nH, C=±0.2nH, S=±0.2nH, D=±0.5nH, G=±2%, H=±3%, J=±5%).  
 ※: Please refer to "Measurement Notice For RF Inductors".

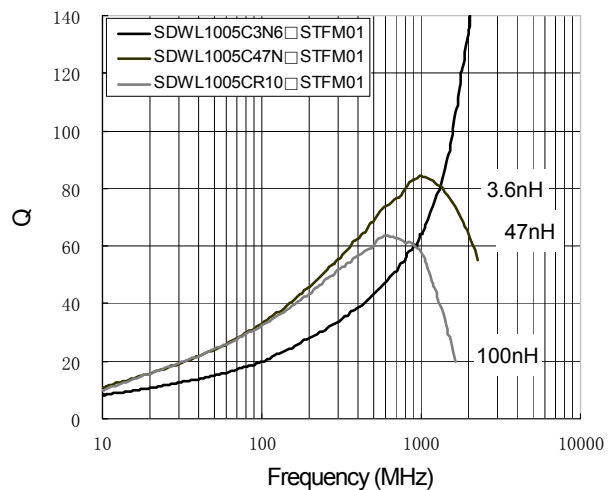
# TYPICAL ELECTRICAL CHARACTERISTICS

## SDWL1005C-M TYPE

Inductance vs. Frequency Characteristics

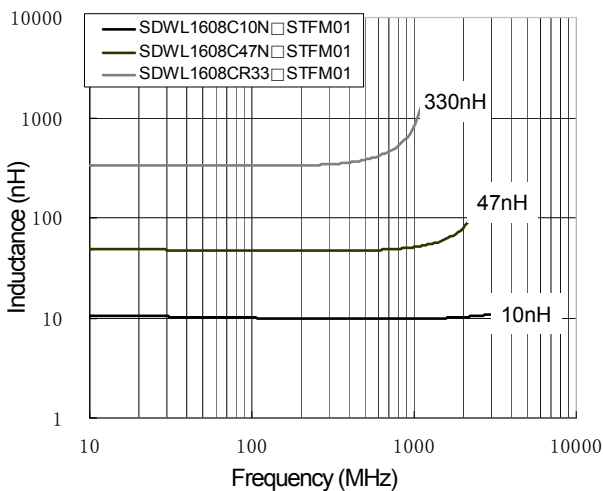


Q vs. Frequency Characteristics

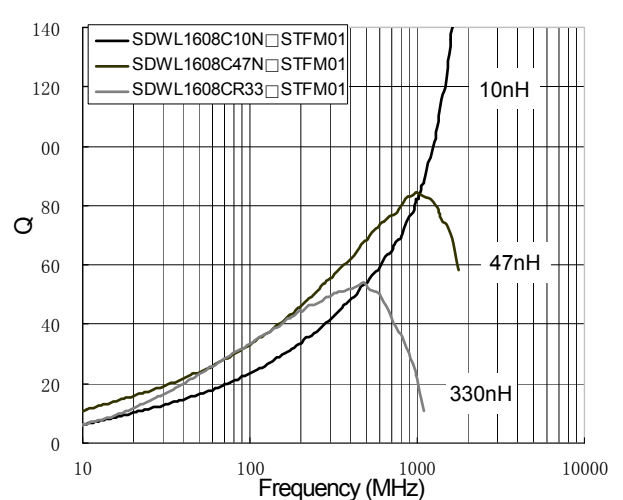


## SDWL1608C-M TYPE

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics



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

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