

# High Frequency Winding Type Chip Inductor

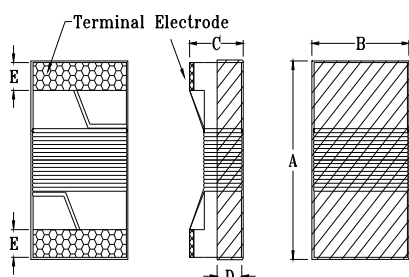
SWC108I-SERIES

## 1. Features

1. Ceramic core wire wound construction.
2. No batch to batch variations in inductance
3. High Reliability due to ceramic wire wound construction.
4. High frequency application.
5. Small footprint as well as low profile.
6. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
7. Operating temperature  $-40\sim+125^{\circ}\text{C}$  (Including self - temperature rise)



## 2. Dimensions



Size	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
SWC108I	2.92 max.	2.79 max.	2.20 max.	1.20 ref.	0.55±0.1

Unit:mm

## 3. Part Numbering

<b>SWC</b>	<b>108</b>	<b>I</b>	-	<b>10N</b>	<b>J</b>	<b>A</b>
A	B	C		D	E	F

A: Series

B: Dimension

LxW

C: Lead free type

D: Inductance

10N=10nH

E: Inductance Tolerance

G=±2%, J=±5%, K=±10%

F: Control S/N

## 4. Specification

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ Test Freq. min.	Rated Current (mA) max.	DCR ( $\Omega$ ) max.	SRF (MHz) min.
SWC108I-10N□A	10	G, J, K	0.1V/50M	50/500	1000	0.08	4100
SWC108I-12N□A	12	G, J, K	0.1V/50M	50/500	1000	0.09	3300
SWC108I-15N□A	15	G, J, K	0.1V/50M	50/500	1000	0.18	2500
SWC108I-18N□A	18	G, J, K	0.1V/50M	50/350	1000	0.11	2500
SWC108I-22N□A	22	G, J, K	0.1V/50M	55/350	1000	0.12	2400
SWC108I-27N□A	27	G, J, K	0.1V/50M	55/350	1000	0.13	1600
SWC108I-33N□A	33	G, J, K	0.1V/50M	60/350	1000	0.14	1600
SWC108I-39N□A	39	G, J, K	0.1V/50M	60/350	1000	0.15	1500
SWC108I-47N□A	47	G, J, K	0.1V/50M	65/350	1000	0.16	1500
SWC108I-56N□A	56	G, J, K	0.1V/50M	65/350	1000	0.18	1300
SWC108I-68N□A	68	G, J, K	0.1V/50M	65/350	1000	0.20	1300
SWC108I-82N□A	82	G, J, K	0.1V/50M	60/350	1000	0.22	1000
SWC108I-R10□A	100	G, J, K	0.1V/25M	60/350	650	0.56	1000
SWC108I-R12□A	120	G, J, K	0.1V/25M	60/350	650	0.63	950

Part Number	Inductance (nH)	Tolerance	Test Frequency (Hz)	Q @ Test Freq. min.	Rated Current (mA) max.	DCR ( $\Omega$ ) max.	SRF (MHz) min.
SWC108I-R15□A	150	G, J,K	0.1V/25M	45/100	580	0.70	850
SWC108I-R18□A	180	G, J,K	0.1V/25M	45/100	620	0.77	750
SWC108I-R22□A	220	G, J,K	0.1V/25M	45/100	500	0.84	700
SWC108I-R27□A	270	G, J,K	0.1V/25M	45/100	500	0.91	600
SWC108I-R33□A	330	G, J,K	0.1V/25M	45/100	450	1.05	570
SWC108I-R39□A	390	G, J,K	0.1V/25M	45/100	470	1.12	500
SWC108I-R47□A	470	G, J,K	0.1V/25M	45/100	470	1.19	450
SWC108I-R56□A	560	G, J,K	0.1V/25M	45/100	400	1.33	415
SWC108I-R62□A	620	G, J,K	0.1V/25M	45/100	300	1.40	375
SWC108I-R68□A	680	G, J,K	0.1V/25M	45/100	400	1.47	375
SWC108I-R75□A	750	G, J,K	0.1V/25M	45/100	360	1.54	360
SWC108I-R82□A	820	G, J,K	0.1V/25M	45/100	400	1.61	350
SWC108I-R91□A	910	G, J,K	0.1V/25M	35/50	380	1.68	320
SWC108I-1R0□A	1000	G, J,K	0.1V/25M	35/50	370	1.75	290
SWC108I-1R2□A	1200	G, J,K	0.1V/7.9M	35/50	310	2.00	250
SWC108I-1R5□A	1500	G, J,K	0.1V/7.9M	28/50	330	2.23	200
SWC108I-1R8□A	1800	G, J,K	0.1V/7.9M	28/50	300	2.60	160
SWC108I-2R2□A	2200	G, J,K	0.1V/7.9M	28/50	280	2.80	160
SWC108I-2R7□A	2700	G, J,K	0.1V/7.9M	22/25	290	3.20	140
SWC108I-3R3□A	3300	G, J,K	0.1V/7.9M	22/25	290	3.40	110
SWC108I-3R9□A	3900	G, J,K	0.1V/7.9M	20/25	260	3.6	100
SWC108I-4R7□A	4700	G, J,K	0.1V/7.9M	18/7.9	200	4	32
SWC108I-5R6□A	5600	G, J,K	0.1V/7.9M	18/7.9	200	4.0	25
SWC108I-6R8□A	6800	G, J,K	0.1V/7.9M	18/7.9	200	4.9	21
SWC108I-8R2□A	8200	G, J,K	0.1V/7.9M	16/7.9	170	6.0	16
SWC108I-100□A	10000	G, J,K	0.1V/2.52M	15/7.9	170	8.0	14

## 5. Recommended PC Board Patte

Chip size							Land Patterns For Reflow Soldering		
Series	Type	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)	L(mm)	G(mm)	H(mm)
SWC	108I	2.92max	2.79max	2.20max	1.20 ref	0.55±0.1	3.31	1.526	2.54

