Wire Wound Inductors – *SCI1008C Series*

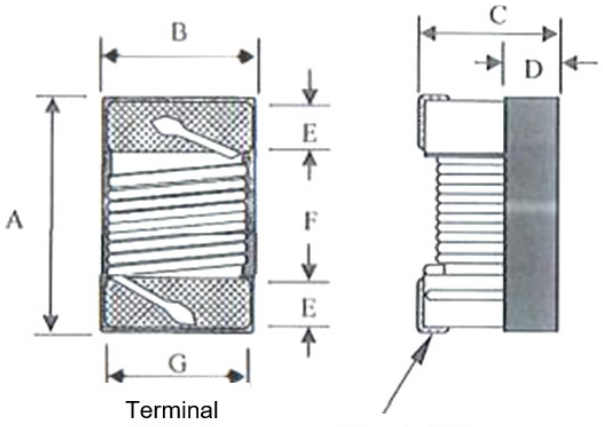
1. Part No. Expression:

S C I 1 0 0 8 C 1 0 N G

(a) (b) (c) (d) (e)

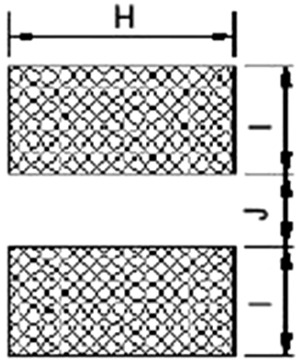
a) Series Code
b) Dimension Code
c) Material Code
d) Inductance Code
e) Tolerance Code

2. Configuration & Dimensions: (Unit:- mm)



Terminal

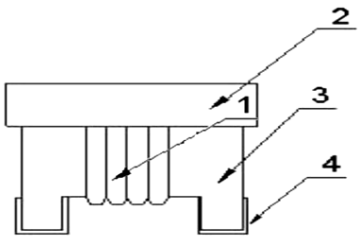
Terminal Wrap:
Approx. 0.38mm at both ends



Recommended PC Board Pattern

A	B	C	D	E	F	G	H	I	J
2.92 Max	2.70 Max	2.23 Max	1.30 Ref	0.51 Ref	1.52 Ref	2.00 Ref	2.54 Ref	1.02 Ref	1.27 Ref

3. Material List:



(1) Wire
(2) Epoxy
(3) Core
(4) Terminal

NOTE: Specifications subject to change without notice. Please check our website for latest information.

4. General Specifications:

(a) Operating Temp.: -40°C to +125°C (Including self - temperature rise).

(b) Storage Temp.: -40°C to +125°C (on board).

(c) Rated Current: 15℃ rise above 25℃ ambient.

(d) Storage Condition (Component in its packaging)

i) Temperature: -10°C to +40°C.

ii) Humidity: 70% RH.

5. Electrical Characteristics:

Part No	Inductance (nH)	Test Frequency For L (Hz)	Tolerance	Q Min	Test Frequency For Q (Hz)	Irms (mA) Max	DCR (Ω) Max	SRF (MHz) Min
SCI1008C10N☐	10	0.2V/50M	G, J, K	50	0.2V/500M	1000	0.08	4100
SCI1008C12N☐	12	0.2V/50M	G, J, K	50	0.2V/500M	1000	0.09	3300
SCI1008C15N☐	15	0.2V/50M	G, J, K	50	0.2V/500M	1000	0.18	2500
SCI1008C18N☐	18	0.2V/50M	G, J, K	50	0.2V/350M	1000	0.11	2500
SCI1008C22N☐	22	0.2V/50M	G, J, K	55	0.2V/350M	1000	0.12	2400
SCI1008C27N☐	27	0.2V/50M	G, J, K	55	0.2V/350M	1000	0.13	1600
SCI1008C33N☐	33	0.2V/50M	G, J, K	60	0.2V/350M	1000	0.14	1600
SCI1008C39N☐	39	0.2V/50M	G, J, K	60	0.2V/350M	1000	0.15	1500
SCI1008C47N☐	47	0.2V/50M	G, J, K	65	0.2V/350M	1000	0.16	1500
SCI1008C56N☐	56	0.2V/50M	G, J, K	65	0.2V/350M	1000	0.18	1300
SCI1008C68N☐	68	0.2V/50M	G, J, K	65	0.2V/350M	1000	0.2	1300
SCI1008C82N☐	82	0.2V/50M	G, J, K	60	0.2V/350M	1000	0.22	1000
SCI1008CR10☐	100	0.2V/25M	G, J, K	60	0.2V/350M	650	0.56	1000
SCI1008CR12☐	120	0.2V/25M	G, J, K	60	0.2V/350M	650	0.63	950
SCI1008CR15☐	150	0.2V/25M	G, J, K	45	0.2V/100M	580	0.7	850
SCI1008CR18☐	180	0.2V/25M	G, J, K	45	0.2V/100M	620	0.77	750
SCI1008CR22☐	220	0.2V/25M	G, J, K	45	0.2V/100M	500	0.84	700
SCI1008CR27☐	270	0.2V/25M	G, J, K	45	0.2V/100M	500	0.91	600
SCI1008CR33☐	330	0.2V/25M	G, J, K	45	0.2V/100M	450	1.05	570

Tolerance: G= ±2%, J= ±5%, K= ±10%.

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Part No	Inductance (nH)	Test Frequency For L (Hz)	Tolerance	Q Min	Test Frequency For Q (Hz)	Irms (mA) Max	DCR (Ω) Max	SRF (MHz) Min
SCI1008CR39☐	390	0.2V/25M	G, J, K	45	0.2V/100M	470	1.12	500
SCI1008CR47☐	470	0.2V/25M	G, J, K	45	0.2V/100M	470	1.19	450
SCI1008CR56☐	560	0.2V/25M	G, J, K	45	0.2V/100M	400	1.33	415
SCI1008CR62☐	620	0.2V/25M	G, J, K	45	0.2V/100M	300	1.4	375
SCI1008CR68☐	680	0.2V/25M	G, J, K	45	0.2V/100M	400	1.47	375
SCI1008CR75☐	750	0.2V/25M	G, J, K	45	0.2V/100M	360	1.54	360
SCI1008CR82☐	820	0.2V/25M	G, J, K	45	0.2V/100M	400	1.61	350
SCI1008CR91☐	910	0.2V/25M	G, J, K	35	0.2V/50M	380	1.68	320
SCI1008C1R0☐	1000	0.2V/25M	G, J, K	35	0.2V/50M	370	1.75	290
SCI1008C1R2☐	1200	0.2V/7.9M	G, J, K	35	0.2V/50M	310	2	250
SCI1008C1R5☐	1500	0.2V/7.9M	G, J, K	28	0.2V/50M	330	2.23	200
SCI1008C1R8☐	1800	0.2V/7.9M	G, J, K	28	0.2V/50M	300	2.6	160
SCI1008C2R2☐	2200	0.2V/7.9M	G, J, K	28	0.2V/50M	280	2.8	160
SCI1008C2R7☐	2700	0.2V/7.9M	G, J, K	22	0.2V/25M	290	3.2	140
SCI1008C3R3☐	3300	0.2V/7.9M	G, J, K	22	0.2V/25M	290	3.4	110
SCI1008C3R9☐	3900	0.2V/7.9M	G, J, K	20	0.2V/25M	260	3.6	100
SCI1008C4R7☐	4700	0.2V/7.9M	G, J, K	18	0.2V/7.9M	200	4	32
SCI1008C5R6☐	5600	0.2V/7.9M	G, J, K	16	0.2V/7.9M	240	5.7	20
SCI1008C6R8☐	6800	0.2V/7.9M	G, J, K	18	0.2V/7.9M	200	7.7	40
SCI1008C8R2☐	8200	0.2V/7.9M	G, J, K	18	0.2V/7.9M	170	10.7	25
SCI1008C100☐	10000	0.2V/7.9M	G, J, K	18	0.2V/7.9M	100	12.7	25

Tolerance: G= ±2%, J= ±5%, K= ±10%.

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6. Soldering and Mounting:

Mildly activated rosin fluxes are preferred. Our terminations are suitable for all re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

6-1 Solder Re-flow:

Recommended temperature profiles for re-flow soldering in Figure 1.

6-2 Soldering Iron (Figure 2):

Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

Note:

a) Preheat circuit and products to 150°C.

b) 350°C tip temperature (Max.)

c) Never contact the ceramic with the iron tip

d) 1.0mm tip diameter (Max.)

e) Use a 20 Watt soldering iron with tip diameter of 1.0mm.

f) Limit soldering time to 4~5 sec.

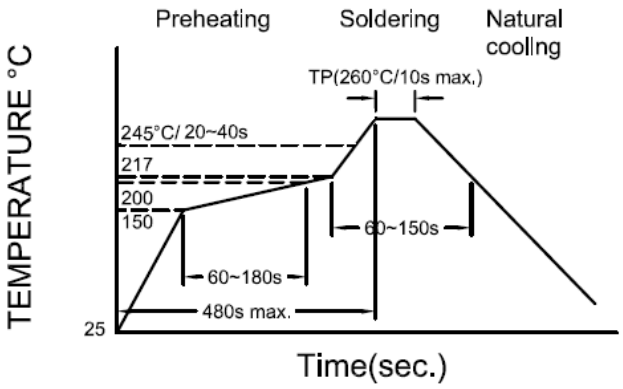


Figure 1: Re-flow Soldering Time
3 times Max.

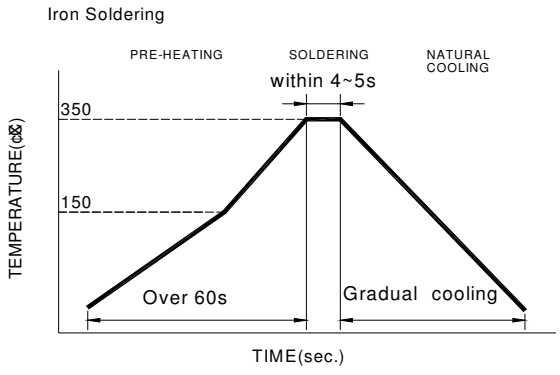
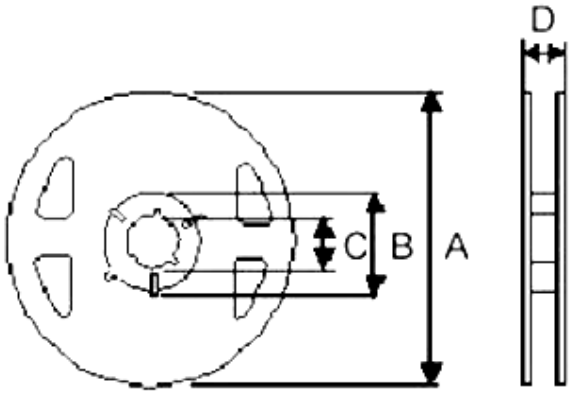


Figure 2: Iron Soldering Time
1 times Max.

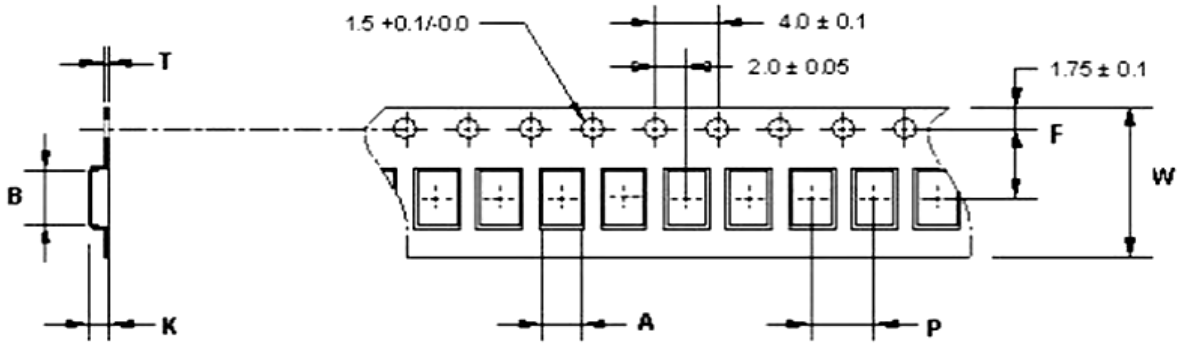
7. Packaging Information:

7-1 Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	180 Ref	60.0 Ref	13.0 Ref	14.4 Ref

7-2 Tape Dimension

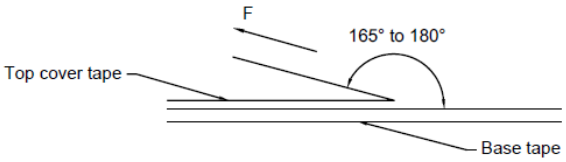


Size	A(mm)	B(mm)	T(mm)	W(mm)	P(mm)	F(mm)	K(mm)
SCI1008C	2.73 Ref	2.90 Ref	0.25 Ref	8.00 Ref	4.00 Ref	3.50 Ref	2.34 Ref

7-3 Packaging Quantity

Chip Size	SCI1008C
Chip/Reel	2000
Inner Carton	10000
Outer Carton	100000

7-4 Tearing Off Force



The force for tearing off cover tape is 10 to 100 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

Application Notice:

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

a) Recommended products should be used within 12 months from the time of delivery.

b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation:

a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.

b) Vacuum pick up is strongly recommended for individual components.

c) Bulk handling should ensure that abrasion and mechanical shock are minimized.