繞線貼片電感

SWCI06 (1206) Series
Wire Wound Chip Inductor (Standard)

Feature
Wire wound Ceramic Construction Provide High SRFs
Ultra-compact Inductors Provide Exceptional Q Values
Low profile , High Current are Available
Miniature SMD Chip Inductor for Fully Automated Assembly
Outstanding Endurance from Pull-up Force, Mechanical Shock and Pressure
Tighter Tolerance of ±2%
Smaller Size of 0402 (1005)

Figure:

Application
RF Products:
Cellular Phone (CDMA/GSM/PHS)
Cordless Phone (DECT/CT1CT2)
Remote Control, Security System
Wireless PDA
WLL, Wireless LAN / Mouse / Keyboard / Earphone
VCO, RF Module & Other Wireless Products
Base Station, Repeater
GPS Receiver

IT Applications:
USB 2.0
IEEE 1394

Broad Band Applications:
CATV Filter, Tuner
Cable Modem/ XDSL Tuner
Set Top Box

ORDERING INFORMATION

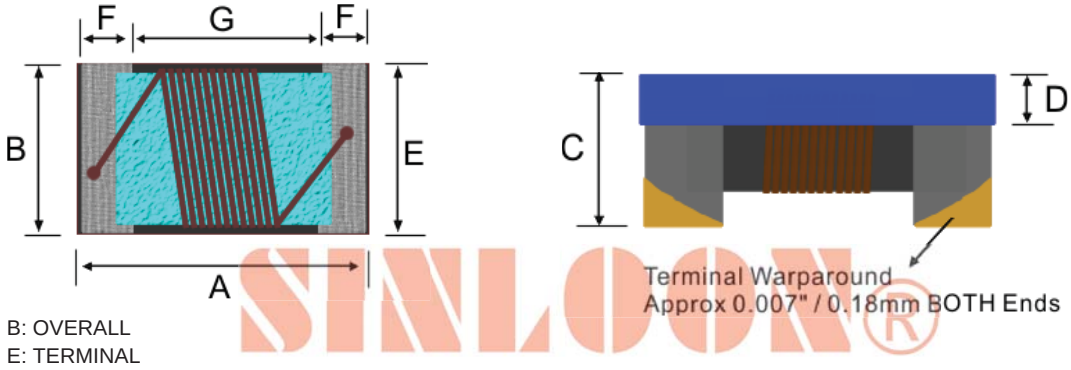
Example: SWCI06G10NT

Size	Design	Type	Tolerance	Inductance	Packing	Quantity
0402	S	WCI02	G= ±2%	1N0=1 nH	T=Taping	4K/Reel
0603	L	WCI03	H= ±3%	10N= 10 nH	B=Bulk	4K/Reel
0805	H	WCI05	J= ±5%	101=100nH		2K/Reel
1008		WCI08	K= ±10%	102=1000nH		2K/Reel
1206		WCI06	M= ±20%	103=10000nH		2K/Reel

DIMENSION

Unit: mm

Type	A (Max)	B (Max.)	C (Max.)	D (Ref.)	E	F	G
SWCI02	1.27	0.76	0.61	0.15	0.15	0.23	0.56
SWCI03	1.80	1.12	1.02	0.38	0.76	0.33	0.86
SWCI05	2.29	1.73	1.52	0.51	1.27	0.44	1.02
SWCI08	2.92	2.79	2.03	0.65	2.03	0.51	1.52
SWCI06	3.56	2.16	1.52	0.50	1.20	0.50	2.20
LWCI05	2.29	1.73	1.03	0.51	1.27	0.44	1.02
LWCI08	2.92	2.79	2.03	0.65	2.03	0.51	1.52
HWCI03	1.80	1.12	1.02	0.38	0.76	0.33	0.86
HWCI05	2.29	1.73	1.52	0.51	1.27	0.44	1.02
HWCI08	2.92	2.79	2.03	0.65	2.03	0.51	1.52



B: OVERALL
E: TERMINAL

Remark Design:
S = Standard.
L = Low Profile Inductor.
H = High Current and High Q

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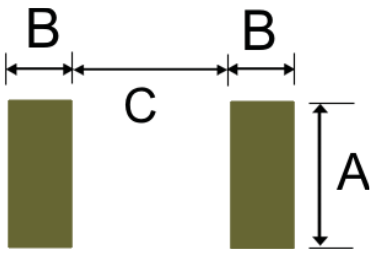
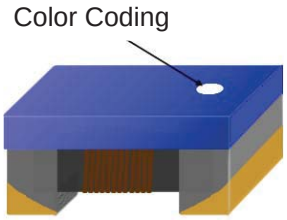
PAD LAYOUT

Type	A	B	C
SWCI02	0.66	0.50	0.46
SWCI03	1.02	0.64	0.64
SWCI05	1.78	1.02	0.76
SWCI08	2.54	1.02	1.27
SWCI06	1.93	1.02	1.78
LWCI05	1.78	1.02	0.76
LWCI08	2.54	1.02	1.27
HWCI03	1.02	0.64	0.64
HWCI05	1.78	1.02	0.76
HWCI08	2.54	1.02	1.27



Color Coding

0603 / 0805/1206/1008 Series (0402 Series is No Color Coding)
Because of small sizes, these parts are marked with a single color dot.
The inductance value represented by the dot is shown on the data page for each series.



Environmental Characteristics

Mechanical Performance

Item	Specification	Test Method
1Vibration Test	Appearance: No damage L change: within ±5% Q change: within ±10%	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y &Z), total 6hrs
2 Resistance to		Solder Temperature: 260±5℃ Immersion Time: 10±2sec
3 Component Adhesion	1 lbs. For 0402 2 lbs. For 0603 3 lbs. For the rest	The device should be soldered (260±5℃ for 10 seconds) to a tinned copper subs rate. A dynamiter force gauge should be applied to the side of the component. The device must with stand a minimum force of 2 or 4
4 Drop Test	No damage	pounds without a failure of adhesion on termination Dropping chip by each side and each corner. Drop 10 times in total Drop height :100cm Drop weight:125g
5 Solderability Test	90% covered with solder.	Inductor shall be dipped in a melted solder bath at 235±5℃ for 5 second
6 Resistance to Solvent Test	No damage on appearance and marking.	MIL-STD202F,Method 215D

Electrical Performance Test

Item	Specification	Test Method
1. Inductance	Refer to standard electrical characteristic spec.	HP4291B
2. Q		HP4291B
3. SRF		HP8753D
4. DC Resistance RDC		Micro-Ohm meter (Gom-801G)
5. Rated Current IDC		Applied the current to coils, The inductance change should be less than 10% to initia l value
6. Over Load Test	Inductors shall have no evidence of electrical and mechanical damage	Applied 2 times of rated allowed DC current to inductor for a period of 5 minute
7 Withstanding Voltage Test	Inductors shall be no evidence of electrical and mechanical damage.	AC voltage of 500 VAC applied between inductors terminal and case for 1 minute.
8 Insulation Resistance Test	1000M ohm min	100 VDC applied between inductor terminal and case

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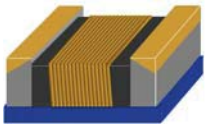
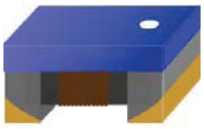
Environmental Characteristics

Climatic Test

Item	Specification	Test Method
1 Temperature Characteristic	Appearance: No damage L change: within ±10% Q change: within ±20%	-40℃~+125℃
2 Humidity Resistance		Temperature: 40±2℃ Relative Humidity: 90~95% Time: 96hrs±2hrs Measured after exposure in the room condition for 2hrs
3 Low Temperature Storage Test		Temperature: -40±2℃ Time: 96±2hrs Inductors are tested after 1 hour at room temperature
4 Thermal Shock Test		One cycle: Total: 5 cycles Step / mperature（℃ / Time（min） 1 / -25±3 / 30 2 / 25±2 / 15 3 / 125±3 / 30 4 / 25±2 / 15
5 High Temperature Storage Test		Temperature:125±2℃ Time: 96±2hrs Measured after exposure in the room condition for 1hr
6 High Temperature Load Life Test	There should be no evidence of short of open circuit.	Temperature:85±2℃ Time:1000±12hrs Load: Allowed DC current
7 Humidity Load Life		Temperature: 40±2℃ Relative Humidity: 90~95% Time: 1000±12hrs Load: Allowed DC current

※Storage Temperature :25±3℃; Humidity:<80%RH





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Standard Electrical Specifications
SWCI06 Wire Wound Chip Inductors Specification (Standard)

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WCI06 □T6N8	6.8 @ 100MHz	10,5	30 @ 300MHz	5.50	0.07	1000	Brown
WCI06 □T10N	10.0 @ 100MHz	10,5	40 @ 300MHz	4.00	0.08	1000	Red
WCI06 □T12N	12.0 @ 100MHz	10,5	40 @ 300MHz	3.20	0.08	1000	Orange
WCI06 □T15N	15.0 @ 100MHz	10,5	40 @ 300MHz	3.20	0.10	1000	Yellow
WCI06 □T18N	18.0 @ 100MHz	10,5	50 @ 300MHz	2.80	0.10	1000	Green
WCI06 □T22N	22.0 @ 100MHz	10,5	50 @ 300MHz	2.20	0.10	1000	Blue
WCI06 □T24N	24.0 @ 100MHz	10,5	50 @ 300MHz	2.00	0.10	1000	Red
WCI06 □T27N	27.0 @ 100MHz	10,5,2	50 @ 300MHz	1.80	0.11	1000	Violet
WCI06 □T33N	33.0 @ 100MHz	10,5,2	55 @ 300MHz	1.80	0.11	1000	Gray
WCI06 □T39N	39.0 @ 100MHz	10,5,2	55 @ 300MHz	1.80	0.12	1000	White
WCI06 □T47N	47.0 @ 100MHz	10,5,2	55 @ 300MHz	1.50	0.13	1000	Black
WCI06 □T56N	56.0 @ 100MHz	10,5,2	55 @ 300MHz	1.45	0.14	1000	Brown
WCI06 □T62N	62.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.20	1000	Violet
WCI06 □T68N	68.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.26	950	Red
WCI06 □T82N	82.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.21	920	Orange
WCI06 □T91N	91.0 @ 100MHz	10,5,2	55 @ 300MHz	1.10	0.24	900	White
WCI06 □TR10	100 @ 100MHz	10,5,2	55 @ 300MHz	1.10	0.26	850	Yellow
WCI06 □TR12	120 @ 100MHz	10,5,2	55 @ 300MHz	0.75	0.26	800	Green
WCI06 □TR15	150 @ 100MHz	10,5,2	60 @ 300MHz	0.95	0.31	750	Blue
WCI06 □TR18	180 @ 50MHz	10,5,2	55 @ 300MHz	0.90	0.43	700	Violet
WCI06 □TR22	220 @ 50MHz	10,5,2	55 @ 300MHz	0.76	0.50	670	Gray
WCI06 □TR27	270 @ 50MHz	10,5,2	55 @ 300MHz	0.74	0.56	630	White
WCI06 □TR30	300 @ 50MHz	10,5,2	50 @ 150MHz	0.68	0.60	600	Green
WCI06 □TR33	330 @ 50MHz	10,5,2	45 @ 150MHz	0.65	0.62	590	Black
WCI06 □TR36	360 @ 50MHz	10,5,2	45 @ 150MHz	0.60	0.65	550	Blue
WCI06 □TR39	390 @ 50MHz	10,5,2	45 @ 150MHz	0.60	0.75	530	Brown
WCI06 □TR47	470 @ 50MHz	10,5,2	45 @ 150MHz	0.55	1.30	490	Red
WCI06 □TR56	560 @ 35MHz	10,5,2	45 @ 150MHz	0.47	1.34	460	Orange
WCI06 □TR62	620 @ 35MHz	10,5,2	45 @ 150MHz	0.47	1.58	460	Gray
WCI06 □TR68	680 @ 35MHz	10,5,2	45 @ 150MHz	0.45	1.58	430	Yellow
WCI06 □TR75	750 @ 35MHz	10,5,2	45 @ 150MHz	0.44	2.25	320	White
WCI06 □TR82	820 @ 35MHz	10,5,2	45 @ 150MHz	0.42	1.82	400	Green
WCI06 □TR91	910 @ 35MHz	10,5,2	45 @ 150MHz	0.41	2.95	310	Green
WCI06 □T1R0	1000 @ 35MHz	10,5,2	45 @ 150MHz	0.40	2.80	320	Blue
WCI06 □T1R2	1200 @35MHz	10,5,2	45 @ 150MHz	0.38	3.20	300	Violet

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