SCW1608F Series

Wire Wound Chip Inductor

◆ Features

1、Small chip suitable for surface mounting;
2、High Q value and high self-resonant frequency with ceramic material;
3、Tight inductance tolerance and stable inductance; at high frequency;
4、RoHS Compliant。



◆ Application

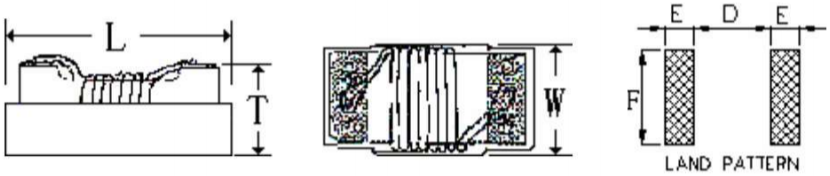
1、High frequency circuit in telecommunication and other equipments;
2、Mobile phones such as GSM, CDMA, PDC, etc;
3、Bluetooth, W-LAN, Broadband network。

◆ PRODUCT IDENTIFICATION

SCW	1608	F	1R0	K	T	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(1) Series Type
(2) Chip Size（mm）:Length X Width
(3) Material Code
(4) Inductance： 1R0=1.0uH 100=10uH
(5) Inductance Tolerance：J=±5%；K=±10%；
(6) Company Code
(7) Packaging：Tape Carrier Package

◆ SHAPE AND DIMENSIONS (unit：mm)



Series	L	W	T	D	E	F
SCW1608F	1.80 Max	1.25 Max	1.20 Max	0.64 Typ	0.64 Typ	1.02 Typ

◆ Specification

Part Number	Inductance	Test Condition	Q	SRF (Min.)	DCR (Max)	Isat (Typ)	Irms (Typ)
	uH	MHz	(Typ)	MHz	Ω	mA	mA
SCW1608F1R0KTT	1.0	7.9	16	250	0.41	860	700
SCW1608F1R5KTT	1.5	7.9	16	160	0.52	720	600
SCW1608F1R8KTT	1.8	7.9	16	121	0.56	640	580
SCW1608F2R2KTT	2.2	7.9	16	103	0.72	600	580
SCW1608F2R7KTT	2.7	7.9	16	72	0.81	540	500
SCW1608F3R3KTT	3.3	7.9	16	66	0.91	500	500
SCW1608F3R9KTT	3.9	7.9	16	61	1.08	460	460
SCW1608F4R7KTT	4.7	7.9	16	51	0.97	400	420
SCW1608F5R6KTT	5.6	7.9	16	47	1.43	380	380
SCW1608F6R8KTT	6.8	7.9	16	43	1.95	340	340
SCW1608F8R2KTT	8.2	7.9	16	40	2.18	300	300
SCW1608F100KTT	10	2.5	14	36	2.40	280	280
SCW1608F120KTT	12	2.5	14	32	2.96	260	260
SCW1608F150KTT	15	2.5	14	29	3.38	240	220
SCW1608F180KTT	18	2.5	14	28	3.77	220	220
SCW1608F220KTT	22	2.5	14	24	4.69	200	200
SCW1608F270KTT	27	2.5	14	20	6.76	140	140
SCW1608F330KTT	33	2.5	14	15	8.58	120	120
SCW1608F470KTT	47	2.5	14	5	12.0	100	100

◆ SOLDERING CONDITIONS

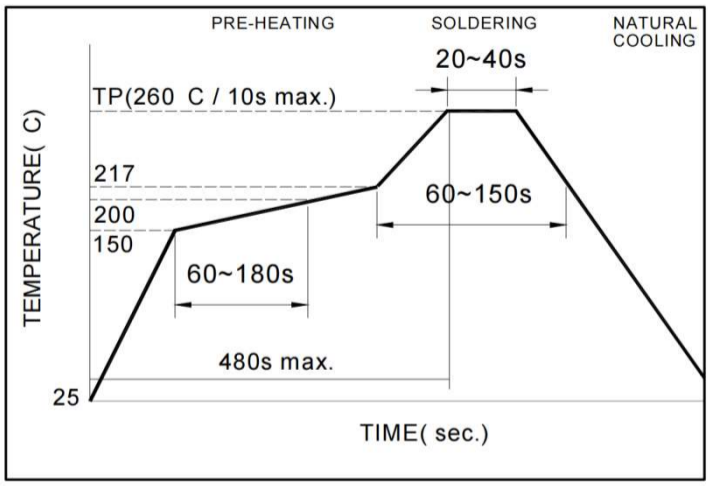


Figure 1. Re-flow Soldering (Lead Free)

Note:
·Preheat circuit and products to 150℃
·260℃ tip temperature (max)

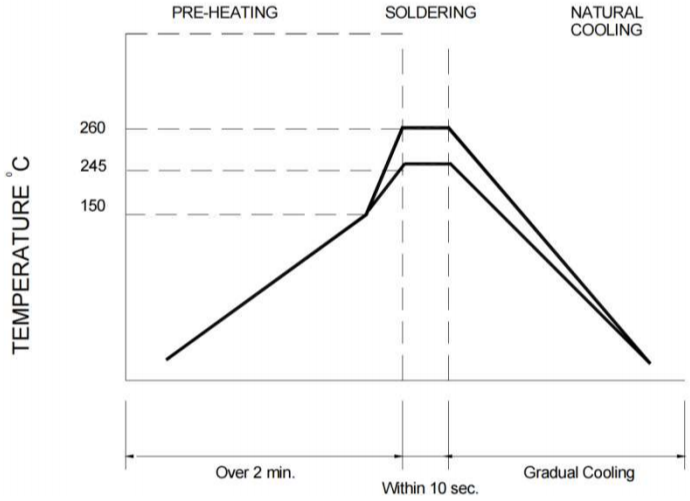


Figure 2. Wave Soldering

Note:
·Never contact the ceramic with the iron tip
·1.0mm tip diameter (max)

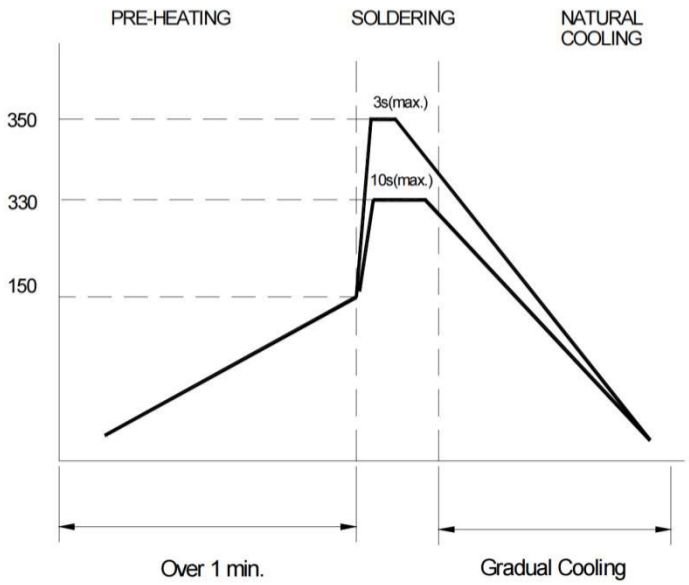
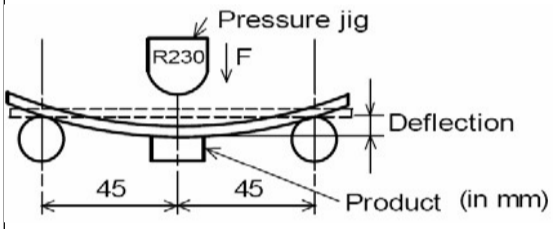


Figure 3. Hand Soldering

Note:
·Use a 20 watt soldering iron with tip diameter of 1.0mm
·Limit soldering time to 3 sec.

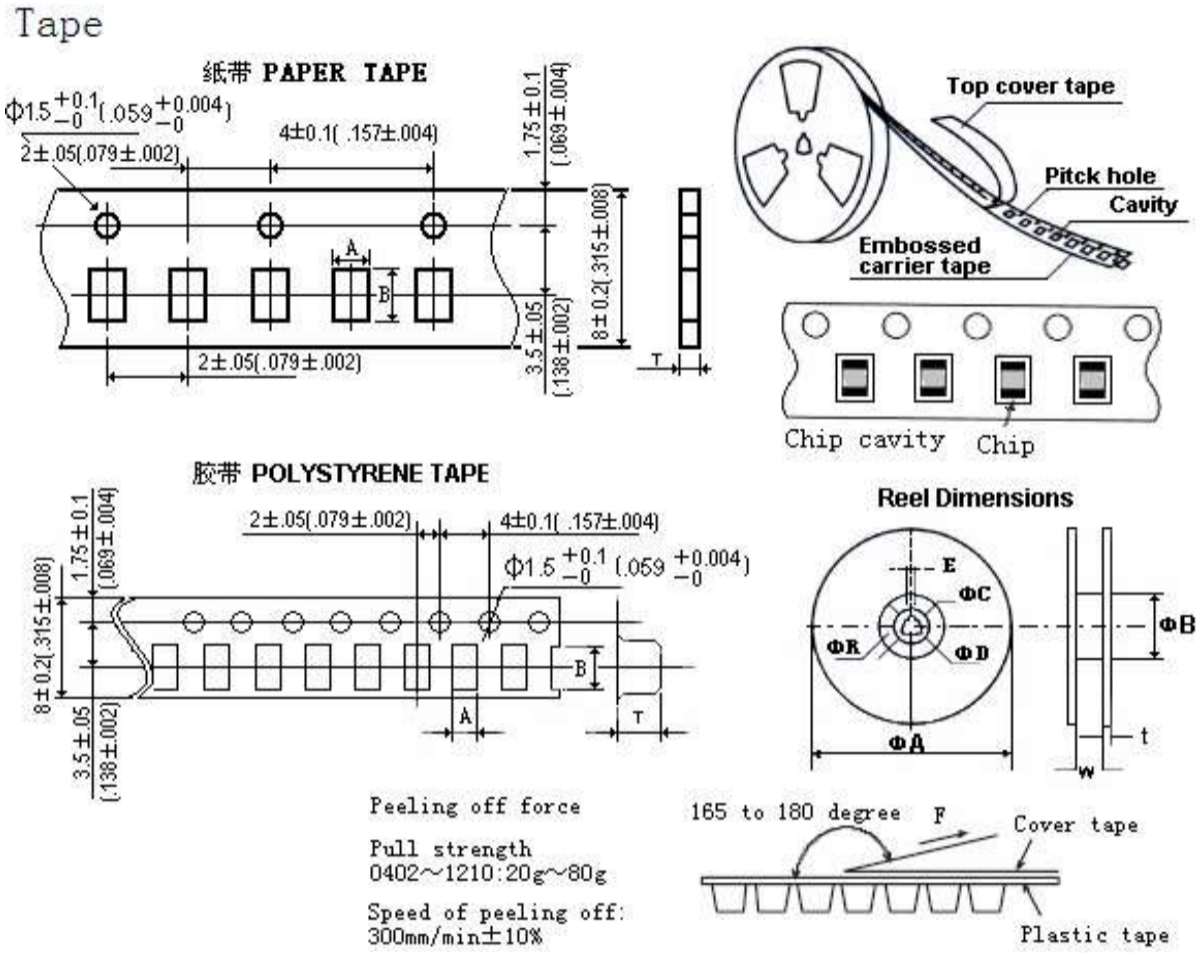
◆ RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION
Rating current	According to product specifications	Current sources:33010D
Inductance	According to product specifications	Test Frequency:0.252~250MHz Test Equipment:HP4291A 、 HP4286A 、 HP4287A 、 HP4284A Test Fixture:16193Aor16334A
Q	According to product specifications	Test Frequency:0.252~1500MHz Test Equipment:HP4291A、HP4286A、HP4287A Test Fixture:16193Aor16334A
RDC	According to product specifications	Test Equipment:HP4263B
SRF	According to product specifications	Test Equipment:HP4291A Test Fixture:16193A
Solderability	The metalized area must have more then 90% of solder coverage	Soldering Temp:230±5°C Dipping time:5±1S
Resistance to soldering heat	No evidence of mechanical damage The mealized arer must have more then 75%of solder coverage Inductance change,less than±5% Q change less than±10%	Soldering Temp:260±5°C Dipping time:10±1S
Thermal Shock	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	A cycle contain:Step1:-40°C， 30Min Step 2:85°C，30Min Cycle Times:10

TEST ITEM	SPECIFICATION	TEST CONDITION
High Temperature Storage	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	Test Temperature:125±2°C(Ceramiccore)85±2°C(Ferrite core) Test Time:96±2Hours
Low Temperature Storage	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	Test Temperature:-40±2°C Test Time:96±2Hours
Moisture Resistance	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	Test Temperature:50±2°C Test Time:100Hours relative humidity:90~95%
Vibration	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	Amplitude:1.5mm X、Y、Z each direction for 1Hour and 45min Frequency range:10~55~10Hz(min)
Component Adhesion	No evidence of mechanical damage No evidence of peel off or broken Keep coutinuity of Winding	Force:2Kg Test Time:5±1sec
Resistance to bend	No evidence of mechanical damage	Camber:20mm Test Board:Glass-Epoxy board Thickness:8mm 
Life	No evidence of mechanical damage, Inductance change less than±5%, Q change less than±10%	Test Temperature:85±2°C Test Time:1000Hours with rating current

◆ PACKAGING(unit: mm)

Tape



胶带 0603	A	B	T
	1.15	1.83	0.95

Type	ΦA	ΦB	ΦC	ΦD	E	W	t	R
0603	178	60	13	21	2	8.4	2	1

PACKAGING QUANTITY

Size	SCW1608F Series
Quantity(pcs)	4,000