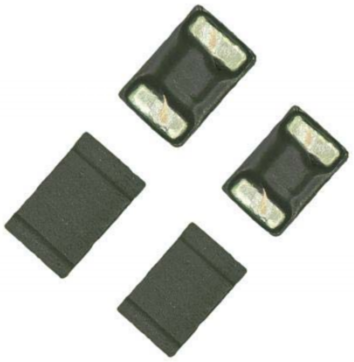
Wire Wound Chip Inductor



◆ 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

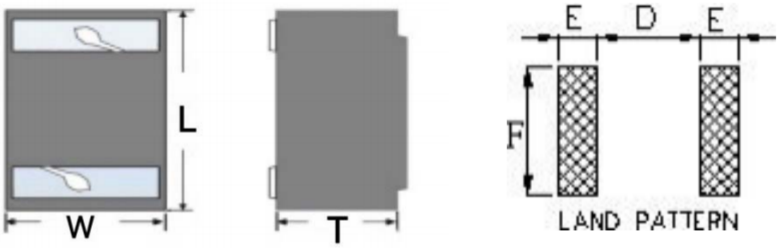
1、High frequency circuit in telecommunication and other equipments;
2、Mobile phones such as GSM, CDMA, PDC, etc;
3、Bluetooth, W-LAN, Broadband network。

◆ PRODUCT IDENTIFICATION

SCW	1608	Q	1R0	M	S	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
Inductance Tolerance: J=±5%; K=±10%; M±20%;
(5) Company Code
(6) Packaging: Tape Carrier Package

◆ SHAPE AND DIMENSIONS (unit : mm)



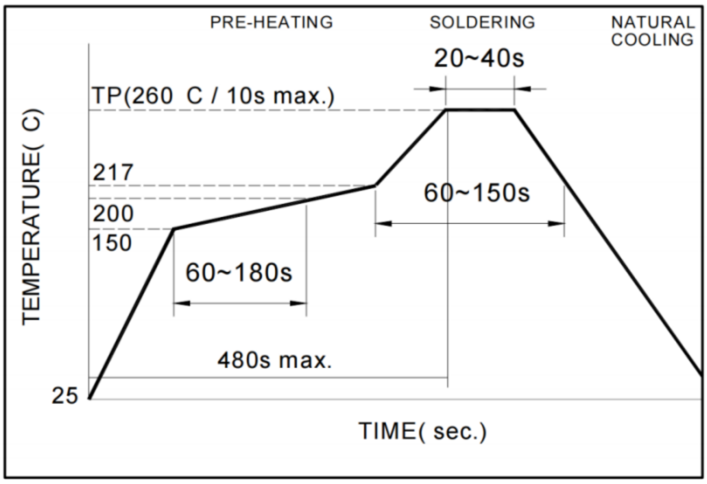
Series	L	W	T	E	F	D
SCW1608Q	1.60±0.15	1.1±0.15	1.0±0.15	0.64Typ	1.02Typ.	0.64Typ.

◆ Specification

Part Number	Inductance	Test Condition	Q	SRF (Min.)	DCR ±30%	Isat (Typ)	Irms (Typ)
	uH	MHz	(Typ)	MHz	Ω(Max)	mA	mA
SCW1608Q1R0MST	1.0±20%	1.0	9	350	0.21	1100	720
SCW1608Q1R5MST	1.5±20%	1.0	9	300	0.39	650	520
SCW1608Q2R2MST	2.2±20%	1.0	9	250	0.46	680	480
SCW1608Q4R7MST	4.7±20%	1.0	9	100	0.7	450	400
SCW1608Q6R8MST	6.8±20%	1.0	9	50	1.25	360	300
SCW1608Q100MST	10±20%	1.0	9	25	1.3	270	380
SCW1608Q150MST	15±20%	1.0	9	25	2.0	270	230
SCW1608Q220MST	22±20%	1.0	9	10	3.9	220	160

◆ SOLDERING CONDITIONS

**Figure 1.
Re-flow
Soldering
(Lead
Free)**

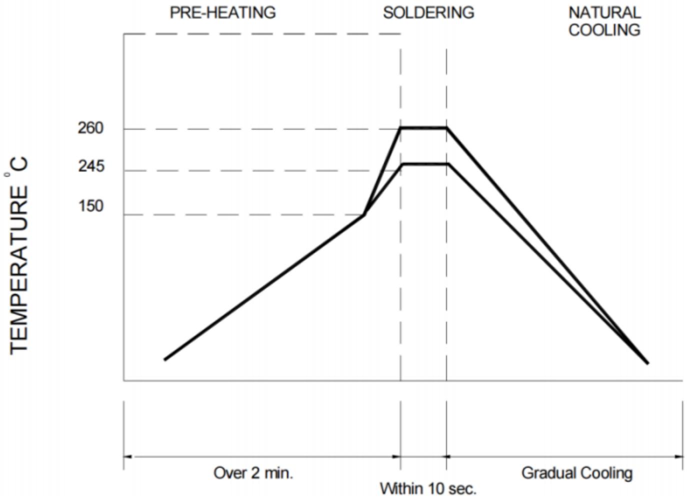


Note:

·Preheat circuit and products to 150℃

·260℃ tip temperature (max)

**Figure 2.
Wave
Soldering**

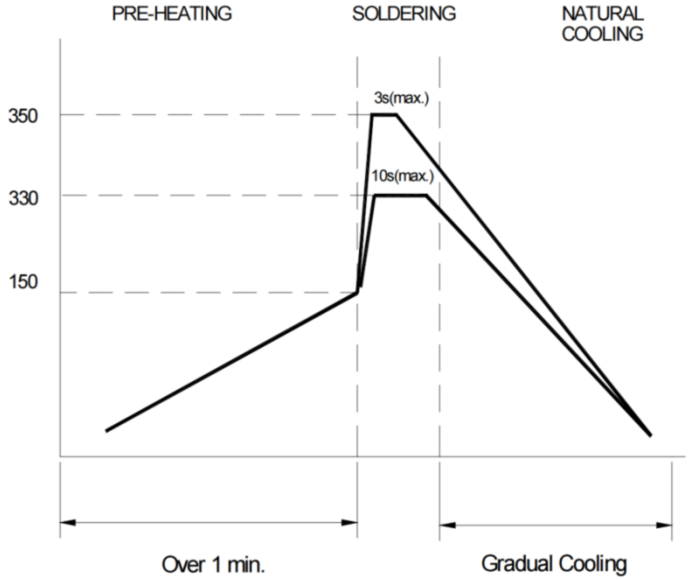


Note:

·Never contact the ceramic with the iron tip

·1.0mm tip diameter (max)

**Figure 3.
Hand
Soldering**



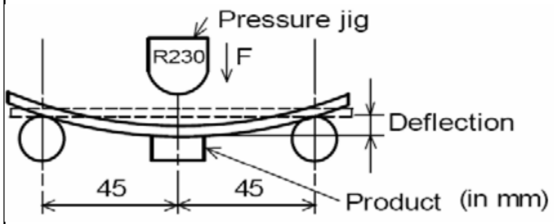
Note:

·Use a 20 watt soldering iron with tip diameter of 1.0mm

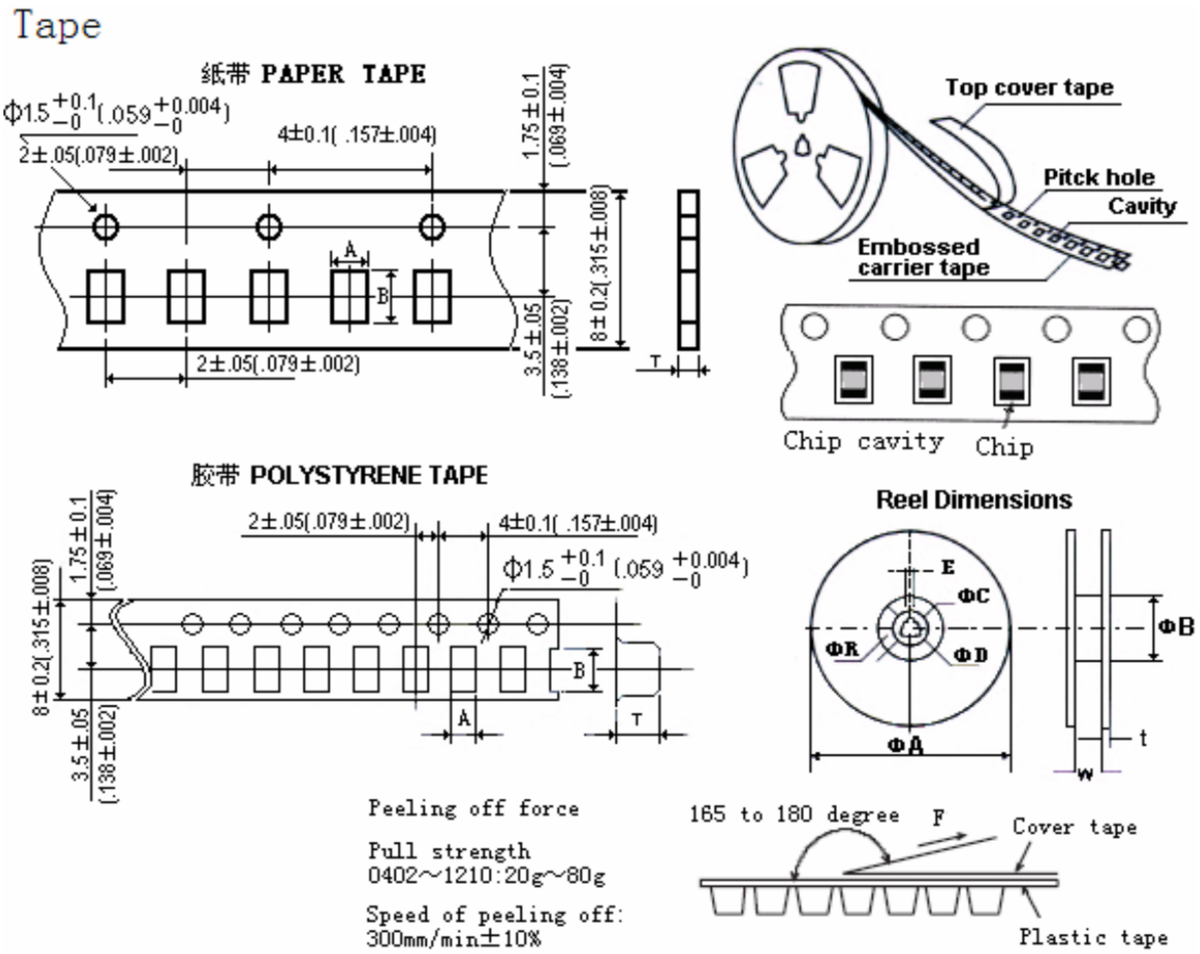
·Limit soldering time to 3 sec.

◆ 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℃(Ceramiccore)85±2℃(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℃ 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℃ 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℃ Test Time:1000Hours with rating current

◆ PACKAGING(unit: mm)



Peeling off force

Pull strength
0402~1210:20g~80g

Speed of peeling off:
300mm/min±10%

胶带	A	B	T
0603	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	SCW1608Q Series
Quantity(pcs)	4,000