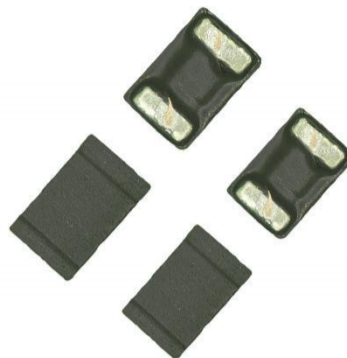


Wire Wound Chip Inductor



◆ 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

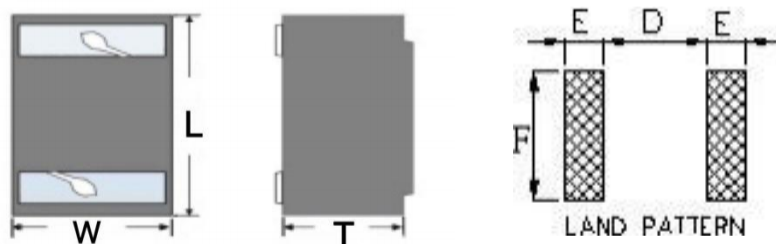
- 1、High frequency circuit in telecommunication and other equipments;
- 2、Mobile phones such as GSM, CDMA, PDC, etc;
- 3、Bluetooth, W-LAN, Broadband network.

◆ PRODUCT IDENTIFICATION

SCW 2012 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)



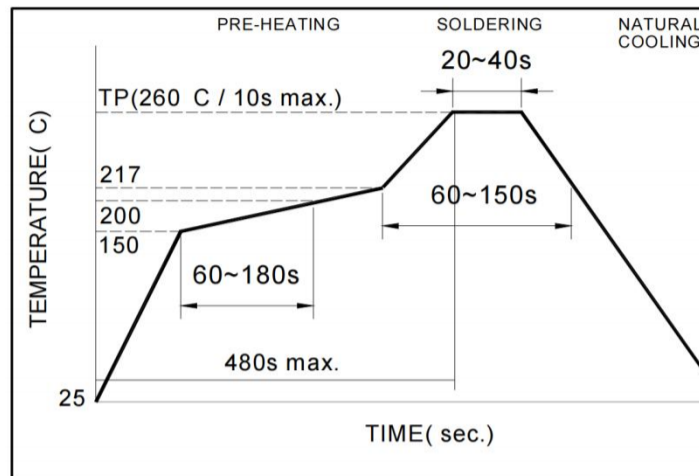
Series	L	W	T	E	F	D
SCW2012Q	2.40MAX	1.73MAX	1.52MAX	1.02Typ.	1.78Typ.	0.76Typ.

◆ Specification

Part Number	Inductance	Test Condition	Q	SRF (Min.)	DCR $\pm 30\%$	Isat (Typ)	Irms (Typ)
	μH	MHz	(Typ)	MHz	$\Omega(\text{Max})$	mA	mA
SCW2012Q1R0MST	1.0	1.0	10	550	0.12	1200	1000
SCW2012Q1R5MST	1.5	1.0	10	450	0.13	900	900
SCW2012Q2R2MST	2.2	1.0	10	100	0.18	780	750
SCW2012Q4R7MST	4.7	1.0	10	150	0.33	510	470
SCW2012Q6R8MST	6.8	1.0	10	50	0.35	470	450
SCW2012Q100MST	10	1.0	10	35	0.53	410	450
SCW2012Q150MST	15	1.0	10	25	0.65	270	350
SCW2012Q220MST	22	1.0	9	10	0.95	270	300

◆ SOLDERING CONDITIONS

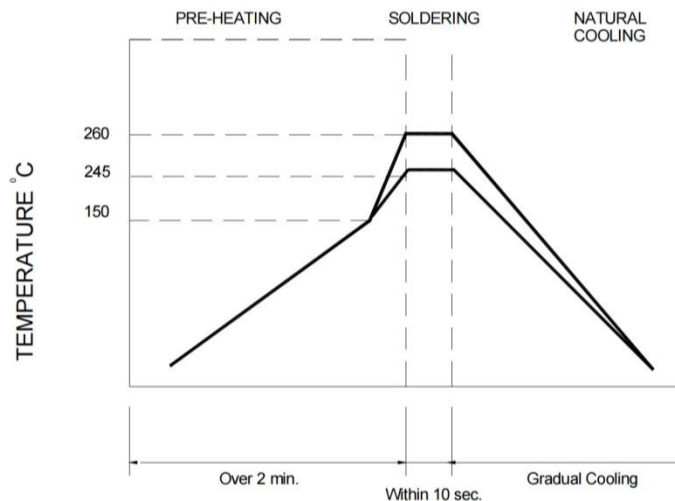
**Figure 1.
Re-flow
Soldering
(Lead
Free)**



Note:

- Preheat circuit and products to 150°C
- 260°C tip temperature (max)

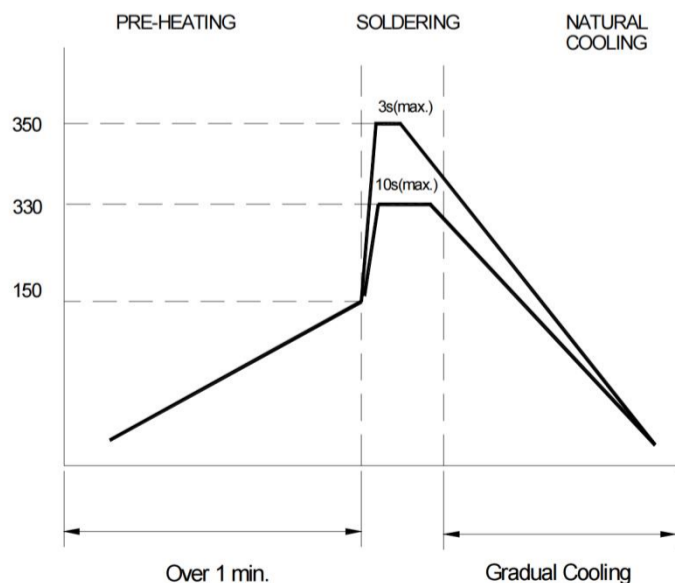
**Figure 2.
Wave
Soldering**



Note:

- Never contact the ceramic with the iron tip
- 1.0mm tip diameter (max)

**Figure 3.
Hand
Soldering**

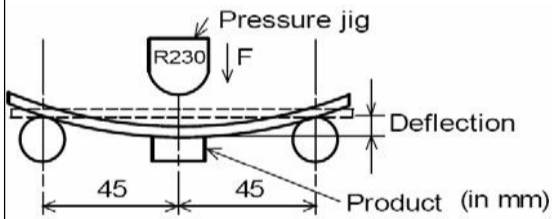


Note:

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

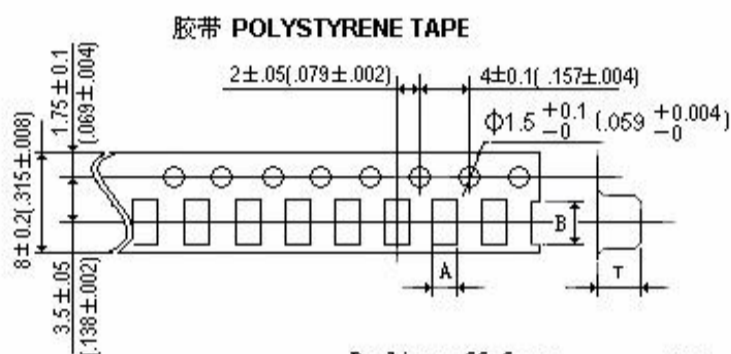
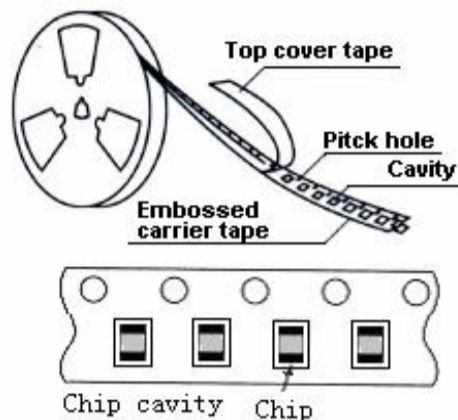
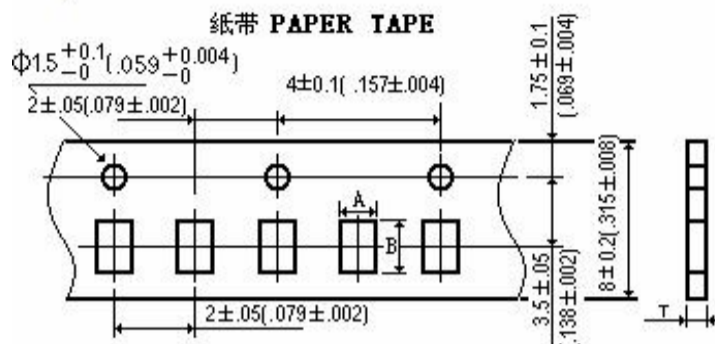
◆ RELIABILITY TEST

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

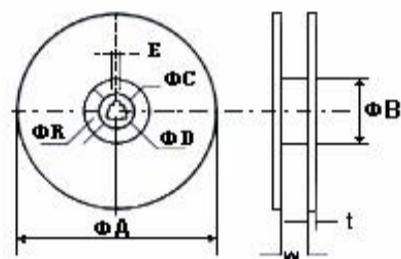
TEST ITEM	SPECIFICATION	TEST CONDITION
High Temperature Storage	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Test Temperature: $125 \pm 2^\circ\text{C}$ (Ceramic core) $85 \pm 2^\circ\text{C}$ (Ferrite core) Test Time: 96 ± 2 Hours
Low Temperature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

◆ PACKAGING(unit: mm)

Tape



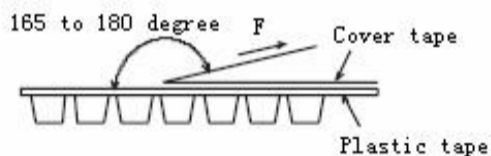
Reel Dimensions



Peeling off force

Full strength
0402~1210:20g~80g

Speed of peeling off:
300mm/min±10%



胶带	A	B	T
0805	1.85	2.4	1.45

Type	ΦA	ΦB	ΦC	ΦD	E	W	t	R
0805	178	60	13	21	2	8.4	2	1

PACKAGING QUANTITY

Size	SCW2012Q Series
Quantity(pcs)	2,000