

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

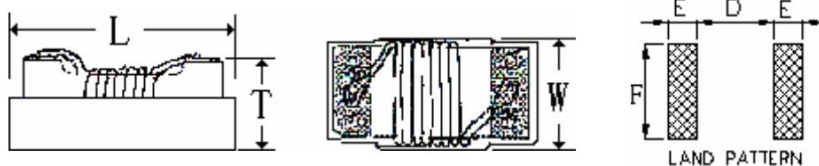
- 1、High frequency circuit in telecommunication and other equipments;
- 2、Mobile phones such as GSM, CDMA, PDC, etc;
- 3、Bluetooth, W-LAN, Broadband network.

◆ PRODUCT IDENTIFICATION

SCW 2012 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)



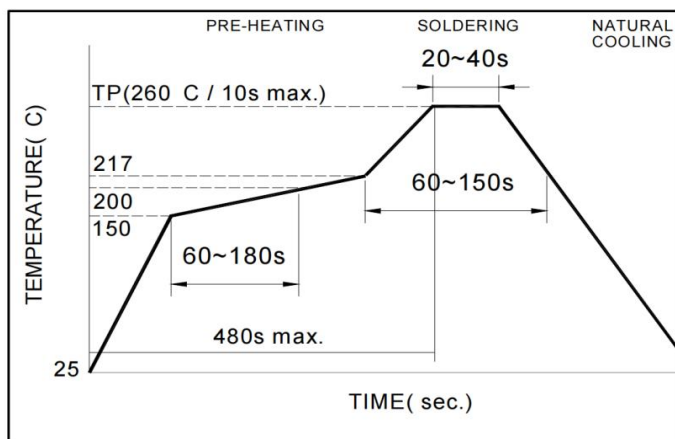
Series	L	W	T	D	E	F
SCW2012F	2.40 Max	1.73 Max	1.52 Max	0.76 Typ	1.02 Typ	1.78 Typ

◆ Specification

Part Number	Inductance	Test Condition	Q	SRF (Typ)	DCR (Max)	I _{rms} (Typ)
	uH	MHz	(Typ)	MHz	Ω	mA
SCW2012FR68KTT	0.68	7.9	14	765	0.19	1200
SCW2012F1R0KTT	1.0	7.9	14	208	0.17	1100
SCW2012F1R2KTT	1.2	7.9	14	208	0.17	960
SCW2012F1R5KTT	1.5	7.9	14	130	0.22	880
SCW2012F1R8KTT	1.8	7.9	14	112	0.26	860
SCW2012F2R2KTT	2.2	7.9	12	80	0.31	740
SCW2012F3R3KTT	3.3	7.9	12	50	0.36	620
SCW2012F4R7KTT	4.7	7.9	14	51	0.56	520
SCW2012F5R6KTT	5.6	7.9	12	42	0.65	480
SCW2012F6R8KTT	6.8	7.9	14	35	0.88	420
SCW2012F8R2KTT	8.2	7.9	13	33	0.94	400
SCW2012F100KTT	10	2.5	14	25	1.17	300
SCW2012F120KTT	12	2.5	14	30	1.50	290
SCW2012F150KTT	15	2.5	15	28	1.82	280
SCW2012F180KTT	18	2.5	15	27	2.01	260
SCW2012F220KTT	22	2.5	15	20	2.29	240
SCW2012F470KTT	47	2.5	14	15	4.42	160
SCW2012F560KTT	56	2.5	14	10	5.75	150
SCW2012F680KTT	68	2.5	14	10	5.90	140
SCW2012F820KTT	82	2.5	14	10	9.75	100
SCW2012F101KTT	100	1.0	10	5	9.75	100

◆ SOLDERING CONDITIONS

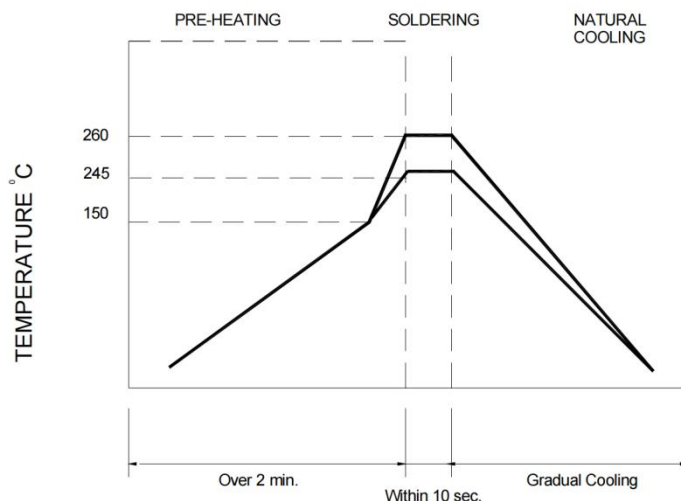
**Figure 1.
Re-flow
Soldering
(Lead
Free)**



Note:

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

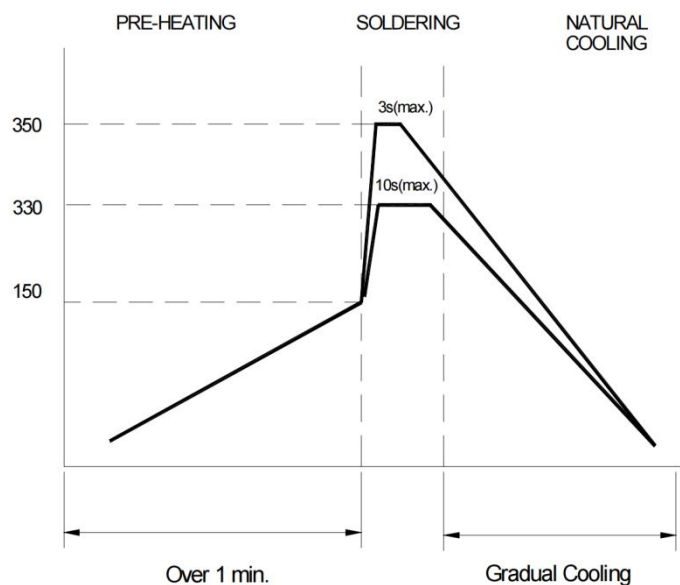
**Figure 2.
Wave
Soldering**



Note:

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

**Figure 3.
Hand
Soldering**

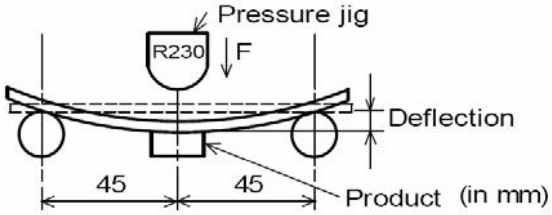


Note:

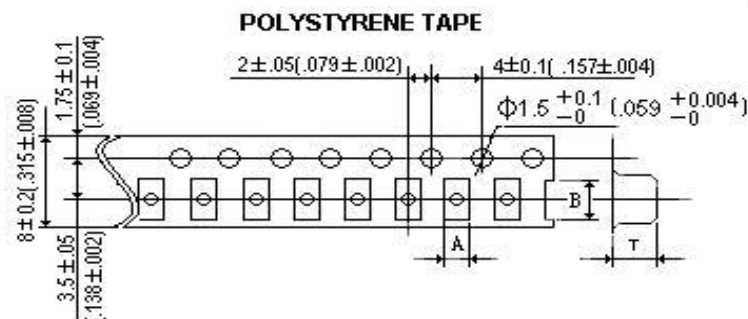
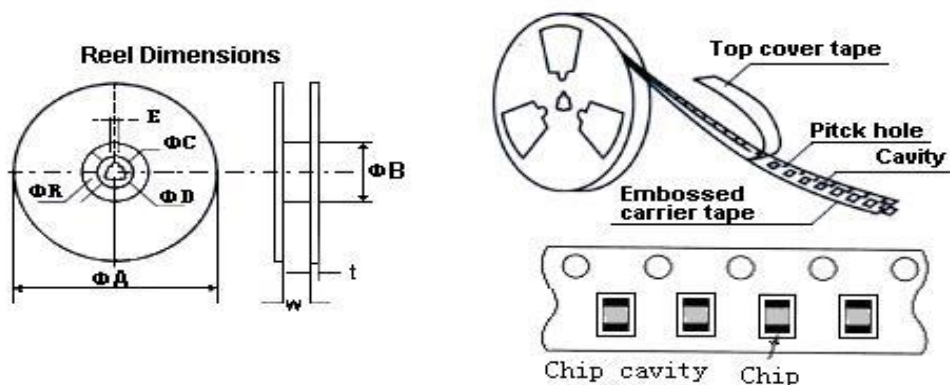
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.

◆ RELIABILITY TEST

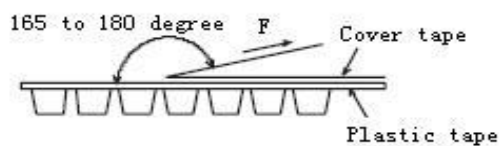
TEST ITEM	SPECIFICATION	TEST CONDITION
Rating current	According to product specifications	Current sources:33010D
Inductance	According to product specifications	Test Frequency:0.252~250MHz Test Equipment:HP4291A 、 HP4286A 、 HP4287A、 HP4284A Test Fixture:16193Aor16334A
Q	According to product specifications	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℃ 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℃ 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℃ , 30Min Step 2:85℃ , 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 
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)



Peeling off force
Pull strength
0402~1210:20g~80g
Speed of peeling off:
300mm/min $\pm$ 10%



	A	B	T
0805	1.85	2.40	1.45

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

PACKAGINGQUANTITY:2000PCS