

Specification Sheet for Approved

Customer Name:	
Customer Part No.:	
Ceaiya Part No:	CWCI0805F Series
Spec No:	C-0805

【For Customer Approval Only】

If you Approval, Please Stamp

【RoHS Compliant Parts】

Approved By	Checked By	Prepared By
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深圳市柯爱亚电子有限公司

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Specification Sheet for SMD Chip Inductor

1. Scope

This specification applies to the CWCI0805F Series of wire wound SMD chip inductor.

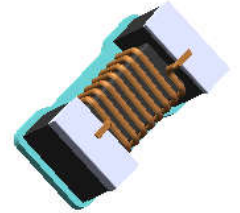
2. Product Description and Identification (Part Number)

1) Description:

CWCI0805F series of Wire wound SMD chip inductor.

2) Product Identification (Part Number)

CWCI
0805
F
-
2R2
□
T
□□



①	Type
CWCI	Wire Wound Chip Inductor

②	External Dimensions(L×W) 【inch】
0805	2.0mm×1.2mm

③	Material type
F	Ferrite

④	Nominal Inductance
Example	Nominal Value
1R0	1.0uH
100	10uH
101	100uH

⑤	Inductance Tolerance
J	±5%
K	±10%
M	±20%

⑦	Design Code
□□	Design Code
* Standard product is blank	

⑥	Packing
T	Tape Carrier Package

3. Electrical Characteristics

Please refer to Item 5.

- 1) Operating temperature range (individual chip without packing): -25°C ~ +100°C (Including Self-heating)
- 2) Storage temperature range (packaging conditions): -25°C ~ +100°C and RH 70% (Max.).

4. Shape and Dimensions (Unit:mm)

Dimensions and recommended PCB pattern for reflow soldering, please see Fig4-1 and Table4-1

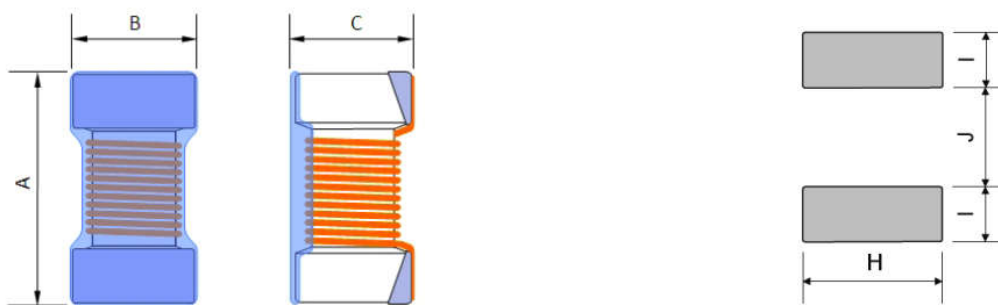


Fig4-1.

Table 4-1.

A	B	C	H	I	J
2.4 Max.	1.45Max.	1.4Max.	1.78 Ref	1.02 Ref	0.76 Ref

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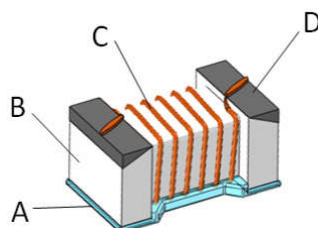
5. Electrical Characteristics

Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Typ.	S.R.F Typ. (MHz)	RDCMax (Ω)	Irms Max. (mA)
CWCI0805F-1R0□T	1.0/7.9	J,K	14/7.9	208	0.17	1100
CWCI0805F-1R5□T	1.5/7.9	J,K	14/7.9	159	0.22	920
CWCI0805F-2R2□T	2.2/7.9	J,K	12/7.9	80	0.31	740
CWCI0805F-3R3□T	3.3/7.9	J,K	12/7.9	70	0.36	620
CWCI0805F-4R7□T	4.7/7.9	J,K	14/7.9	51	0.56	520
CWCI0805F-5R6□T	5.6/7.9	J,K	12/7.9	42	0.65	480
CWCI0805F-6R8□T	6.8/7.9	K,M	14/7.9	35	0.88	420
CWCI0805F-100□T	10/2.5	K,M	14/2.5	25	1.17	300
CWCI0805F-150□T	15/2.5	K,M	15/2.5	28	1.82	280
CWCI0805F-220□T	22/2.5	K,M	15/2.5	20	3.50	240

Note:

- When ordering, please specify tolerance and packaging codes. Ex:CWCI0805F-100KT
Tolerance: J=±5%,K=±10%,M=±20%, N=±30%
Packaging: Clear tape and reel {standard}
- L, Q, SRF : Agilent /HP 4287A + Agilent / HP 8722ES or Equivalent
- Rdc: Digital Milliohm Meter Chroma 16502, or equivalent.
- Idc for Inductance drop 20% from its value without current.
- Irms for a 15°C rise above 25°C ambient.

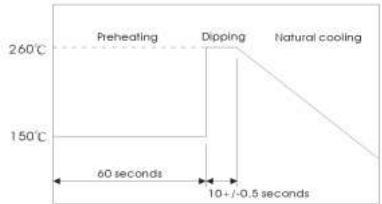
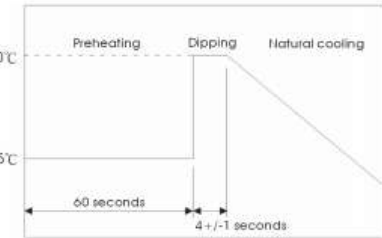
6. Structure: See the following.



No.	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ferrite
C	Wire	Polyurethane system enameled copper wire
D	Electrodes	Ag/Ag-Pd with Ni and Sn plating

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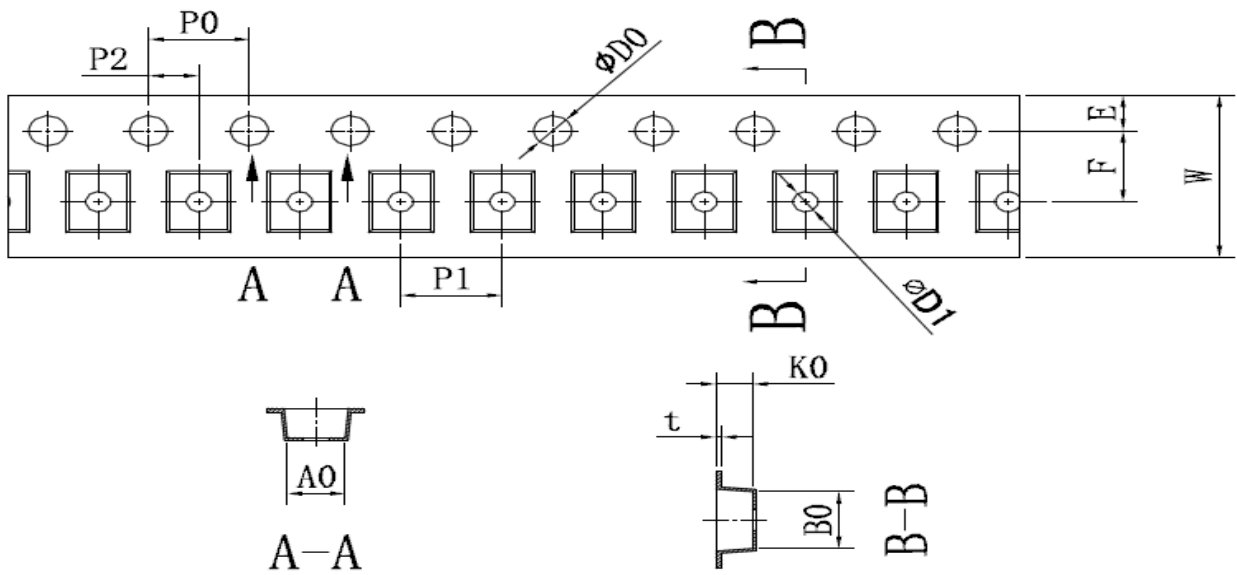
7. Reliability Test

Items	Performance	Test Condition															
7.1 Solder Heat Resistance 耐焊锡热	Appearance: No significant abnormality. Inductance change: Within $\pm 20\%$ 外观：无明显异常 电感值：变化值在初始值 20% 以内	Preheat: 150°C , 60sec. Solder: H63A Solder temperature: $260\pm 5^{\circ}\text{C}$ Flux for lead free: rosin Dip time: $10\pm 0.5\text{sec}$. 预热： 150°C ， 60 sec 锡炉温度： $260\pm 5^{\circ}\text{C}$ 助焊剂： rosin. 时间： $10\pm 0.5\text{sec}$ 															
7.2 Solderability Test 端面焊锡性	More than 90% of the terminal electrode should be covered with solder. 端电极之锡覆盖面达 90% 以上	Preheat: $125\pm 25^{\circ}\text{C}$, 60sec. Solder: H63A Solder temperature: $230\pm 5^{\circ}\text{C}$ Flux for lead free: rosin Dip time: $4\pm 1\text{sec}$ 预热： 125°C ， 60 sec 锡炉温度： $230\pm 5^{\circ}\text{C}$ 助焊剂： rosin. 时间： $4\pm 1\text{sec}$ 															
7.3 High Temperature Resistance Test 高温放置测试	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit. 外观不能破损 电感值：变化值在初始值 20% 以内 电性无短路或断线。	Temperature: $85\pm 2^{\circ}\text{C}$. Applied current: rated current. Duration: 500 hrs															
7.4 Humidity Resistance Test 高湿放置测试	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit. 外观不能破损 电感值：变化值在初始值 20% 以内 电性无短路或断线。	Temperature: $40\pm 2^{\circ}\text{C}$. Applied current: rated current. Duration: 500 hrs Humidity: 90~95%															
7.5 Thermal shock 热冲击试验	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit. 外观不能破损 电感值：变化值在初始值 20% 以内 电性无短路或断线。	Condition for 1 cycle Step1: $-25\pm 2^{\circ}\text{C}$, 30 ± 3 min. Step2: Room temperature within 15 min. Step3: $+85\pm 5^{\circ}\text{C}$, 30 ± 3 min. Step4: Room temperature within 15 min. Number of cycles: 50PCS <table border="1" data-bbox="1134 1458 1485 1666"> <thead> <tr> <th>Phase</th> <th>Temperature($^{\circ}\text{C}$)</th> <th>Time(min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>$-25\pm 2^{\circ}\text{C}$</td> <td>30 ± 3</td> </tr> <tr> <td>2</td> <td>Room Temp.</td> <td>15</td> </tr> <tr> <td>3</td> <td>$+85\pm 2^{\circ}\text{C}$</td> <td>30 ± 3</td> </tr> <tr> <td>4</td> <td>Room Temp.</td> <td>15</td> </tr> </tbody> </table>	Phase	Temperature($^{\circ}\text{C}$)	Time(min)	1	$-25\pm 2^{\circ}\text{C}$	30 ± 3	2	Room Temp.	15	3	$+85\pm 2^{\circ}\text{C}$	30 ± 3	4	Room Temp.	15
Phase	Temperature($^{\circ}\text{C}$)	Time(min)															
1	$-25\pm 2^{\circ}\text{C}$	30 ± 3															
2	Room Temp.	15															
3	$+85\pm 2^{\circ}\text{C}$	30 ± 3															
4	Room Temp.	15															
7.6 Humidity Resistance 高湿测试	Appearance: no damage. Inductance: within $\pm 20\%$ of initial value. No disconnection or short circuit. 外观不能破损 电感值：变化值在初始值 20% 以内 电性无短路或断线。	Humidity: 90~95%RH. Temperature: $40\pm 5^{\circ}\text{C}$. Applied current: rated current. Duration: $500\pm 12\text{hrs}$. Measured at room temperature after placing for 2 to 3hrs. 湿度： 90~95%RH. 温度： $40\pm 5^{\circ}\text{C}$. 须加电流： 额定电流。 放置时间： $500\pm 12\text{hrs}$.															

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8. Packaging and Storage

(1) Taping Dimensions (Unit: mm)



TEM	W	A0	B0	K0	P0	F	E	D0	D1	P1	P2	T
DIM	8.00	1.45	2.25	1.42	4.00	3.50	1.75	1.55	1.0	4.00	2.00	0.22
TOLE	±0.3	±0.1	±0.1	±0.05	±0.1	±0.05	±0.1	+0.1	+0.1	±0.1	±0.05	±0.05

包装数量(PACKAGING QUANTITY)

规格	0805
数量 (PCS)	2000

(2) Leader and blank portion

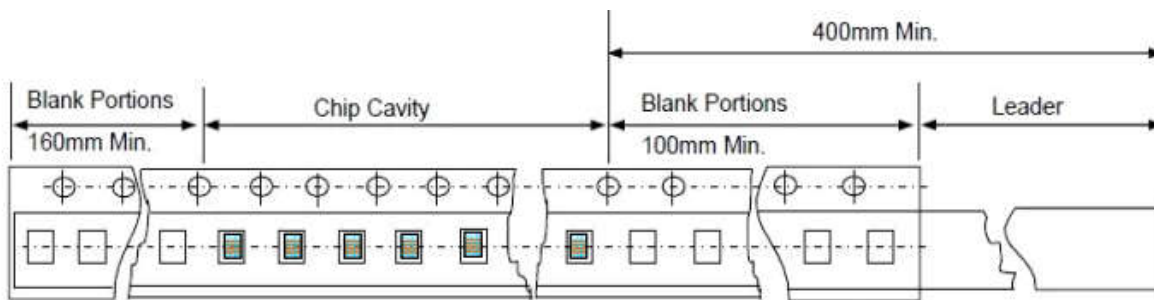


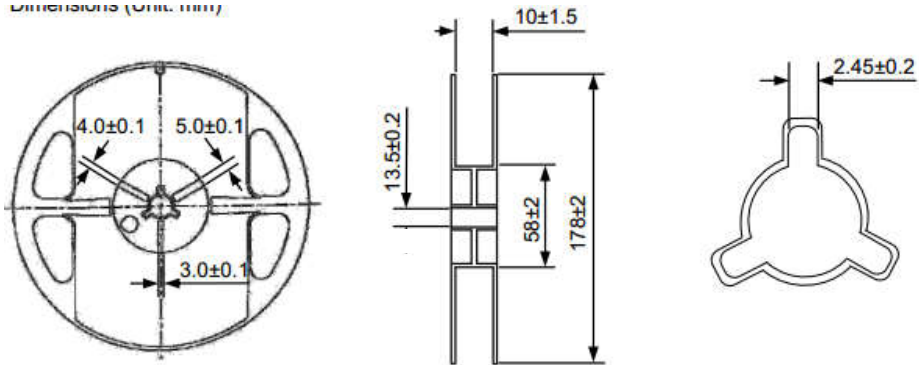
Fig. 7.1-3

Direction of Feed

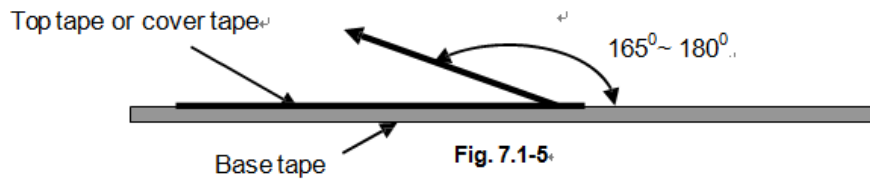
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(3) Reel Dimensions (Unit: mm)

Dimensions (Unit: mm)



(4) Peeling off force: 10gf to 70gf in the direction show below.



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