



QS9000 & ISO14001 & TS16949 **CHILISIN ELECTRONICS CORP.**

**Lead-Free & RoHs Compliance!!**

## SPECIFICATION FOR APPROVAL

**CUSTOMER :** 立创

**CUSTOMER P/N :** C2914000

**OUR DWG No :** \_\_\_\_\_

**QUANTITY :** 0 Pcs. **DATE :** 2021/11/5

**ITEM :** SCD0403T-1R4T-N

<b>SPECIFICATION ACCEPTED BY:</b>	
<b>COMPONENT ENGINEER</b>	
<b>ELECTRICAL ENGINEER</b>	
<b>MECHANICAL ENGINEER</b>	
<b>APPROVED</b>	
<b>REJECTED</b>	

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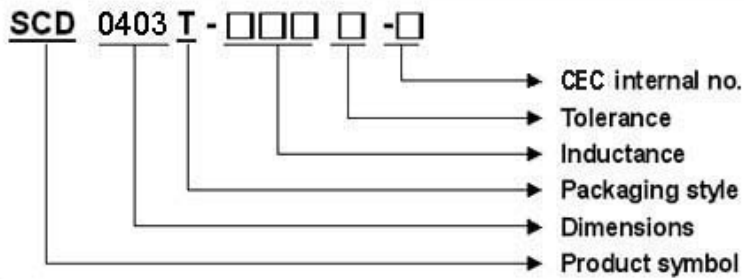
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# SCD0403T Series Specification

**1** Scope: This specification applies to SMD POWER CHOKE

**2** Part Numbering: Product Identification

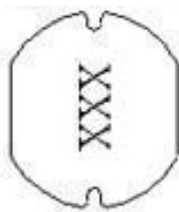


**3** Rating:

Operating Temperature:  $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Storage Temperature: Under  $25^{\circ}\text{C}$  ,Humidity < 75% RH

**4** Marking:



**EX: SCD0403T-1R4T-N**

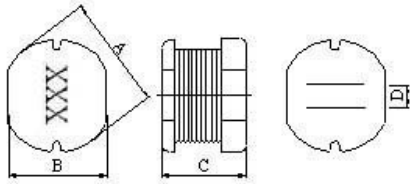
**Marking: 1R4**

**5** Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35°C)	20±2°C
Humidity	Ordinary Humidity(25 to 85% RH)	60 to 70 % RH

# SCD0403T Series Specification

## 6 Configuration and Dimensions:



TYPE	SCD0403
A	4.5±0.3
B	4.0±0.3
C	3.2±0.3
D	1.2

## 7 ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	IDC (A)Max.	Tolerance (±%)
SCD0403T-1R4T-N	1.4	100KHZ 0.25V	0.03	3.6	30

**NOTE:** □-tolerance K=±10% / =±15% / M=±20%

1. Operating temperature range - 40 °C ~ 85 °C

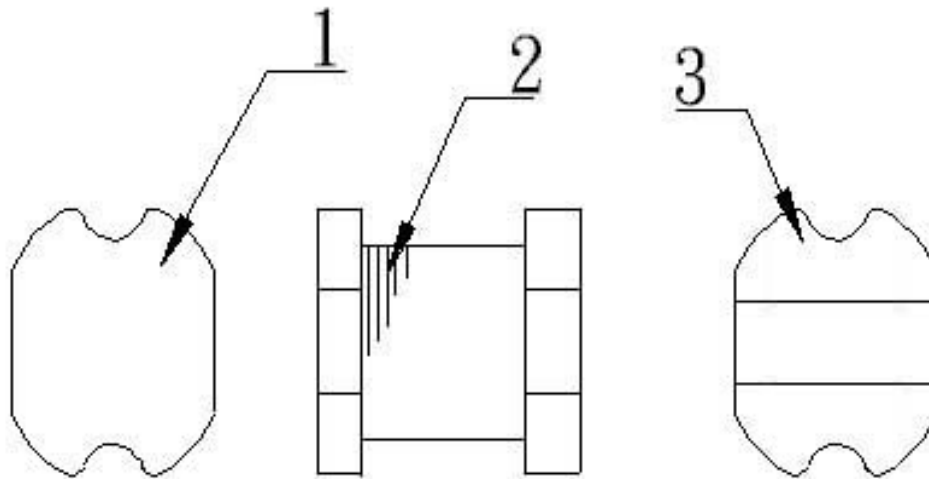
2. This indicates the value of current when the inductance is 10% lower than its initial value at D.C superposition of D.C current when at Δt=40°C whichever is lower.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)

## SCD0403T Series Specification

### 8 SCD0403T Series

#### 8.1 Construction:



#### 8.2 Material List:

ITEM	PART	DESCRIPTION	TEMP.	SUPPLIES	UL NO.
1	CORE	FERRITE		CHILISIN	
2	WIRE	DDNYU PD800N UEY	130°C	PACIFIC WALSIN LIHWA TOTOKU	E84081(S) E70566(S) E79029(S)
3	TERMINAL	SILVER Sn/Pb		NAMICS	



# SCD0403T Series Specification

## 9 Reliability Of Ferrite Wire Wound Power Inductor

### 1-1.Mechanical Performance

No	Item	Specification	Test Method
1-1-1	Vibration	Appearance: No damage Inductance: within $\pm 10\%$ of initial value	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-2	Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 260 $\pm$ 5°C Immersion Time: 10 $\pm$ 1sec
1-1-3	Solder ability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 245 $\pm$ 5°C Immersion Time: 4 $\pm$ 1sec

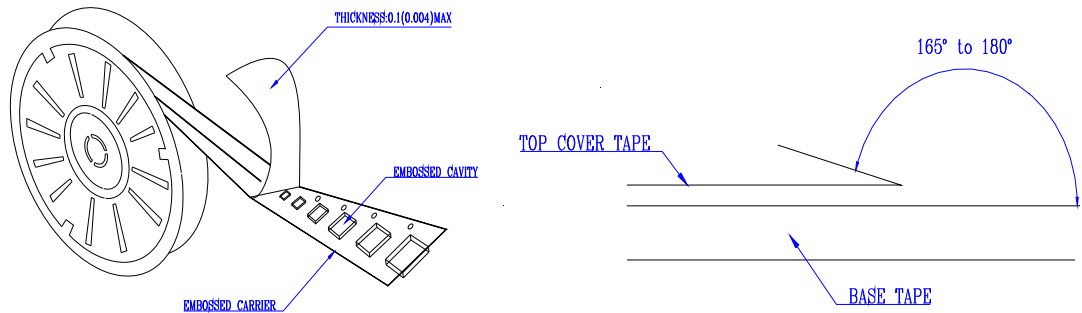
### 1-2.Environmental Performance

No	Item	Specification	Test Method															
1-2-1	Temperature Shock	Appearance: No damage Inductance: within $\pm 10\%$ of initial value	10 cycles (Air to Air) 1 cycles shall consist of: 30 minutes exposure to -55 °C 30 minutes exposure to 125 °C 15 seconds maximum transition between temperatures															
1-2-2	Temperature Cycle		One cycle: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25<math>\pm</math>3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25<math>\pm</math>2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85<math>\pm</math>3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25<math>\pm</math>2</td> <td>3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Time (min)	1	-25 $\pm$ 3	30	2	25 $\pm$ 2	3	3	85 $\pm$ 3	30	4	25 $\pm$ 2	3
Step	Temperature (°C)		Time (min)															
1	-25 $\pm$ 3		30															
2	25 $\pm$ 2		3															
3	85 $\pm$ 3	30																
4	25 $\pm$ 2	3																
1-2-3	Humidity Resistance	Temperature: 40 $\pm$ 2°C Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs																
1-2-4	Heat Life	Temperature: 85 $\pm$ 3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs																
1-2-5	Cold Resistance	Temperature: -25 $\pm$ 3°C Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs																

# SCD0403T Series Specification

## 10 PACKAGING

### 10.1 Packaging -Cover tape



The force for tearing off cover tape is 10 to 60 grams in the arrow direction.

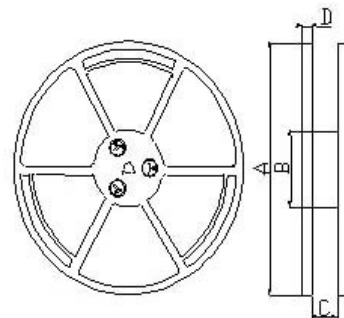
### 10.2 Packaging Quantity

TYPE	BULK	PCS/REEL
SCD0403	✓	2000
SCD0504	✓	1500
SCD0703	✓	1000
SCD0705	✓	700
SCD1004	✓	700
SCD1005	✓	700

### 10.3 Reel Dimensions

Reel Dimension : m/m

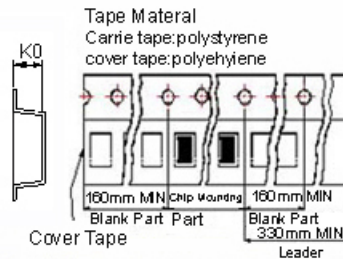
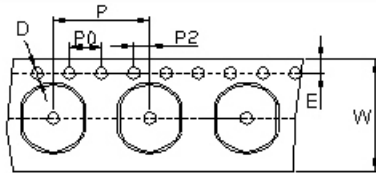
TYPE	A	B	C	D
SCD0403	330	100	13	13.4
SCD0504	330	100	13	17.4
SCD0703	330	100	13	17.4
SCD0705	330	100	13	17.4
SCD1004	330	100	13	24.4
SCD1005	330	100	13	24.4



# SCD0403T Series Specification

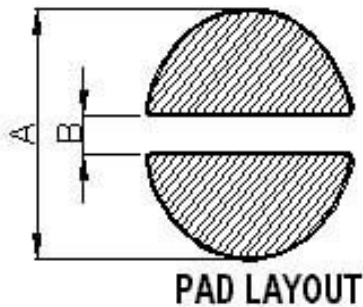
## 10 PACKAGING

### 10.4 Tape Dimensions in mm



TYPE	K0	D	E	W	P	P0	P2
SCD0403	3.10	1.55	1.75	12	8	4	2
SCD0504	4.80	1.55	1.75	16	8	4	2
SCD0703	3.80	1.55	1.75	16	12	4	2
SCD0705	5.20	1.55	1.75	16	12	4	2
SCD1004	5.80	1.55	1.75	24	12	4	2
SCD1005	5.80	1.55	1.75	24	12	4	2

## 11 Recommended Pattern



Dimensions in mm

TYPE	A(in/mm)	B(in/mm)
SCD0403	0.22/5.5	0.047/1.2
SCD0504	0.268/6.8	0.051/1.3
SCD0703	0.346/8.8	0.083/2.1
SCD0705	0.346/8.8	0.083/2.1
SCD1004	0.433/11	0.083/2.1
SCD1005	0.433/11	0.083/2.1

## 12 Note:

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

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