



ISO9001 & ISO14001 & TS16949 **CHILISIN ELECTRONICS CORP.**

Lead-Free & RoHs Compliance!!

SPECIFICATION FOR APPROVAL

CUSTOMER : _____

CUSTOMER P/N : _____

OUR DWG No : _____

QUANTITY : 0 Pcs. **DATE :** 2013/02/26

ITEM : SCDS2D18HP-2R2M-N

SPECIFICATION ACCEPTED BY:	
COMPONENT ENGINEER	
ELECTRICAL ENGINEER	
MECHANICAL ENGINEER	
APPROVED	
REJECTED	

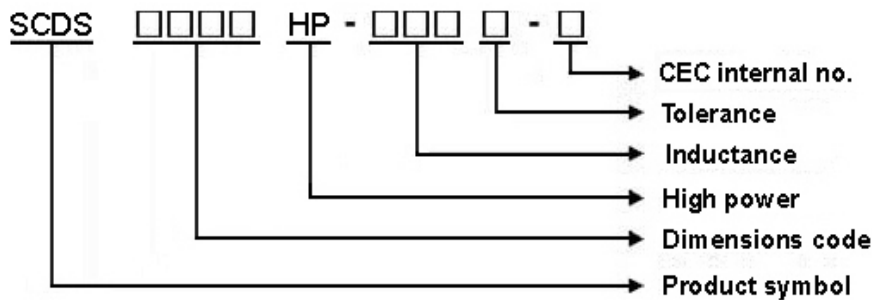
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SCDS2D18HP Series Specification

1 Scope: This specification applies to SMD POWER CHOKE

2 Part Numbering: Product Identification

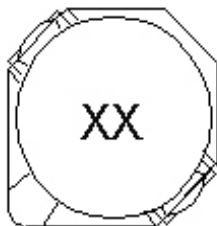


3 Rating:

Operating Temperature: $-30^{\circ}\text{C} \sim 100^{\circ}\text{C}$ (Including self - temperature rise)

Storage Temperature: Under 25°C , Humidity < 75% RH

4 Marking:



Ex : SCDS2D18HP-100T-N

Marking : KA

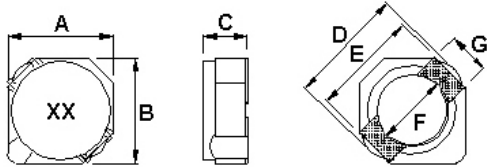
Marking color : Black

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

SCDS2D18HP Series Specification

6 Configuration and Dimensions:



TYPE	A m/m	B m/m	C m/m	D m/m	E m/m	F m/m	G m/m
SCDS2D18HP	3.2 ⁺⁰	3.2 ⁺⁰	2 ⁺⁰	4.5 ⁺⁰	3.3	2.1	1.0

7 ELECTRICAL CHARACTERISTICS :

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Rated Current (A)	I _{rms} (A)Typ.	Tolerance	Marking
SCDS2D18HP-1R5□-N	1.5	100 kHz, 1 V	0.044	1.9	2.2	T	BF
SCDS2D18HP-1R7□-N	1.7	100 kHz, 1 V	0.044	1.85	2.2	M,T	BH
SCDS2D18HP-2R2□-N	2.2	100 kHz, 1 V	0.06	1.6	1.9	M,T	CC
SCDS2D18HP-3R3□-N	3.3	100 kHz, 1 V	0.086	1.45	1.55	M,T	DD
SCDS2D18HP-4R7□-N	4.7	100 kHz, 1 V	0.14	1.2	1.2	M,T	EH
SCDS2D18HP-6R3□-N	6.3	100 kHz, 1 V	0.16	1.05	1.15	M,T	GD
SCDS2D18HP-6R8□-N	6.8	100 kHz, 1 V	0.195	1		M,T	GI
SCDS2D18HP-100□-N	10	100 kHz, 1 V	0.245	0.85	0.9	M,T	KA
SCDS2D18HP-150□-N	15	100 kHz, 1 V	0.345	0.7	0.64	M,T	MA
SCDS2D18HP-220□-N	22	100 kHz, 1 V	0.65	0.5		M,T	LA

NOTE: □-tolerance M=±20% / T=±30%

1. Operating temperature range – 3 0 °C ~ 1 0 0 °C (Including self - temperature rise)

2. Rate current: Inductance drop = 35% typ.

3. I_{rms}: Δt=40°C

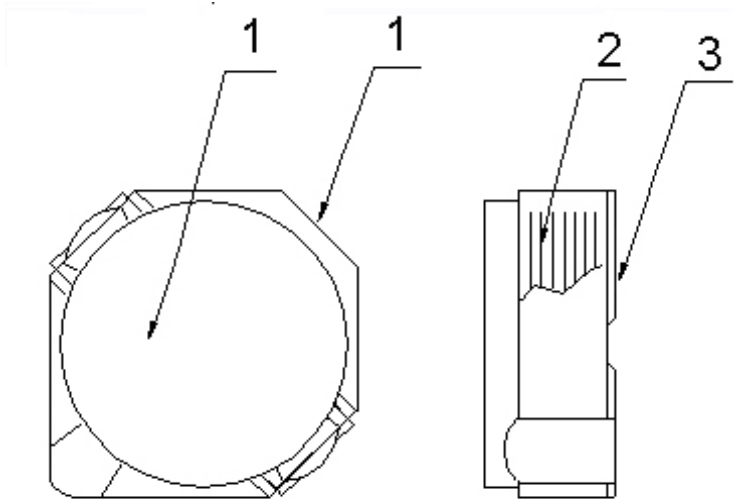
4. RDC test method: place testing device to the 2 solder ends of winding and test the value.

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

SCDS2D18HP Series Specification

8 SCDS2D18HP Series

8.1 Construction:



8.2 Material List:

ITEM	PART	DESCRIPTION	SUPPLIES
1	CORE	FERRITE	CHILISIN
2	WIRE	MAGNET WIRE	
3	TERMINAL	TERMINAL COPPER	CHILISIN



SCDS2D18HP Series Specification

9 Reliability Of Ferrite Wire Wound Power Inductor

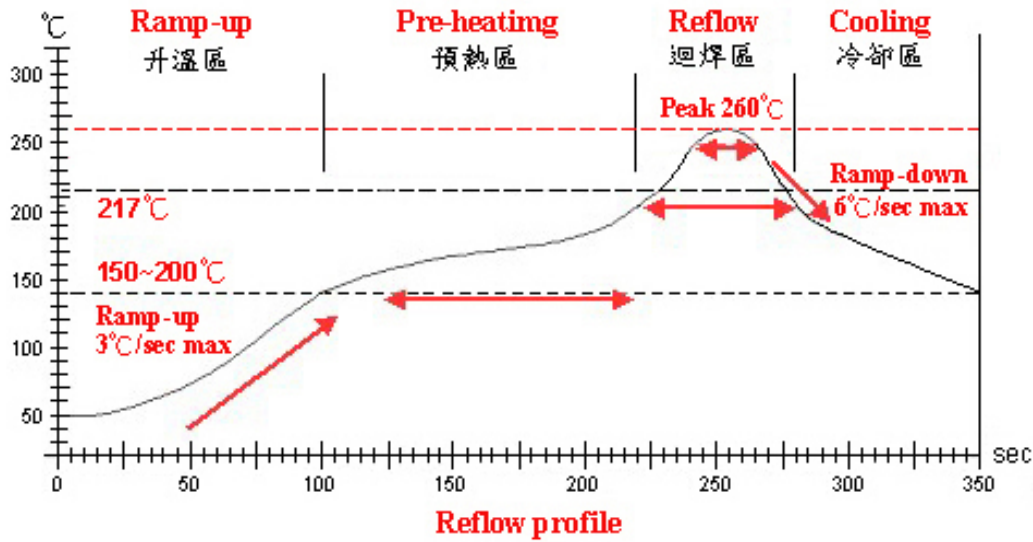
1-1.Mechanical Performance

No	Item	Specification	Test Method
1-1-1	Vibration	Appearance: No damage L change: within±10%	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±5°C Immersion Time: 10±1sec
1-1-3	Solderability	The electrodes shall be at least 95% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 245±5°C Immersion Time: 4±1sec
1-1-4	Resistance to solvent	There must be no change in appearance or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.

1-2.Environmental Performance

No	Item	Specification	Test Method															
1-2-1	Temperature Shock	Appearance: No damage L change: within±10%	10 cycles (Air to Air) 1 cycles shall consist of: 30 minutes exposure to -55 °C 30 minutes exposure to 130 °C 15 seconds maximum transition between temperatures Measured after exposure in the room condition for 24hrs															
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>-30±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>100±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>3</td> </tr> </tbody> </table> Total: 10cycles Measured after exposure in the room condition for 24hrs	Step	Temperature (°C)	Time (min)	1	-30±3	30	2	25±2	3	3	100±3	30	4	25±2	3
Step	Temperature (°C)	Time (min)																
1	-30±3	30																
2	25±2	3																
3	100±3	30																
4	25±2	3																
1-2-3	Humidity Resistance		Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-4	High Temperature Resistance		Temperature: 85±3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-5	Low Temperature Resistance		Temperature: -30±3°C Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs															

SCDS2D18HP Series Specification



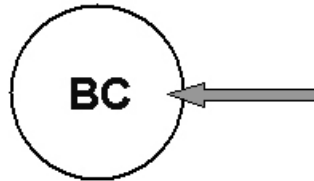
Lead-Free(LF) 標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升温區 Ramp-up	预热區 Pre-heating	迴焊區 Reflow	Peak Temp	冷却區 Cooling
溫度範圍 Temp. scope	R.T. ~ 150°C	150°C ~ 200°C	217°C	260±5°C	Peak Temp. ~ 150°C
標準時間 Time spec.	—	60 ~ 180 sec	60 ~ 150sec	20 ~ 40 sec	—
實際時間 Time result	—	75 ~ 100 sec	90 ~ 120sec	20 ~ 35 sec	—

SCDS2D18HP Series Specification

EX:



Color : BLACK
Inductance : 1R2(1.2uH)

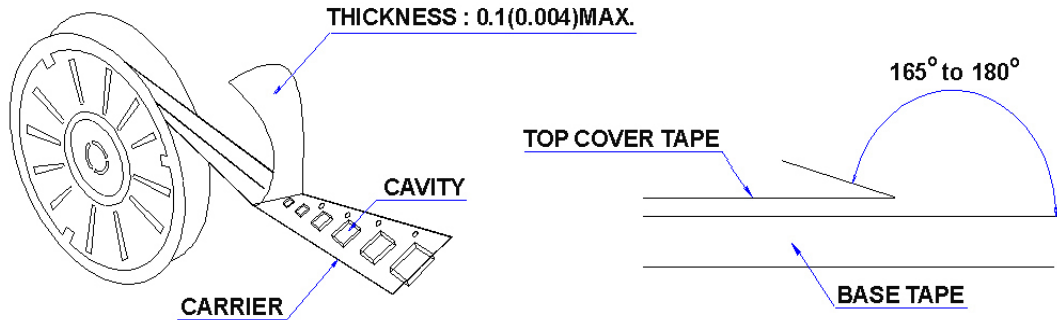
Value coding	Inductance value	P/N	Marking	P/N	Marking
A	0	1R0	BA	680	VA
B	1	1R2	BC	750	WA
C	2	1R4	BE	820	XA
D	3	1R5	BF	101	KB
E	4	1R7	BH	121	QB
F	5	1R8	BI	151	MB
G	6	2R2	CC	181	RB
H	7	2R7	CH	221	LB
I	8	3R3	DD	271	SB
J	9	3R9	DJ	301	YB
K	10	4R7	EH	331	NB
L	22	5R6	FG	391	PB
M	15	6R3	GD	461	ZB
N	33	6R8	GI	471	OB
O	47	8R2	IC	561	UB
P	39	100	KA	681	VB
Q	12	120	QA	821	XB
R	18	150	MA	102	KC
S	27	180	RA	122	QC
T	50	220	LA	152	MC
U	56	270	SA		
V	68	330	NA		
W	75	390	PA		
X	82	470	OA		
Y	30	500	TA		
Z	46	560	UA		

SCDS2D18HP Series Specification

11 PACKAGING

11.1 Packaging -Cover tape

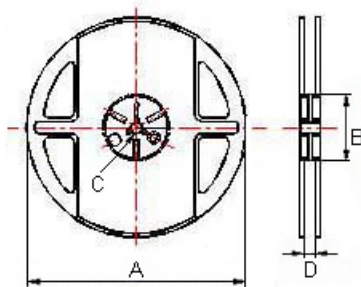
The force for tearing off cover tape is 10 to 130 grams in the arrow direction.



11.2 Packaging Quantity

TYPE	BULK	PCS/REEL
SCDS2D09	✓	1000
SCDS2D11	✓	1000
SCDS2D14	✓	1000
SCDS2D18LD	✓	1000
SCDS2D18HP	✓	1000
SCDS3D28	✓	500
SCDS3D28LD	✓	500

11.3 Reel Dimensions



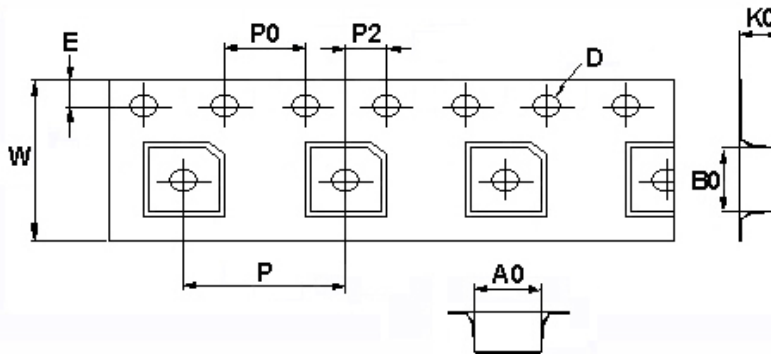
Reel Dimensions : m/m

TYPE	A	B	C	D
SCDS2D09	178	60	13	13.2
SCDS2D11	178	60	13	13.2
SCDS2D14	178	60	13	13.2
SCDS2D18LD	178	60	13	13.2
SCDS2D18HP	178	60	13	13.2
SCDS3D28	178	60	13	13.2
SCDS3D28LD	178	60	13	13.2

SCDS2D18HP Series Specification

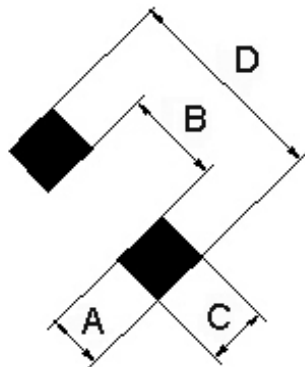
11 PACKAGING

11.4 Tape Dimensions in mm



TYPE	A0	B0	K0	D	E	W	P	P0	P2
SCDS2D18HP	3.5	3.5	2.1	1.55	1.75	12	8	4	2

12 Recommended Pattern



Dimensions in mm

TYPE	A(mm)	B(mm)	C(mm)	D(mm)
SCDS2D11	1.3	1.7	1.3	4.3
SCDS2D14	1.3	1.7	1.3	4.3
SCDS2D18LD	1.3	1.7	1.3	4.3
SCDS2D18HP	1.3	1.7	1.3	4.3

13 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)

SCDS2D18HP Series Specification

14 Curve:

