

BL114H series

SUNCAGEY 0.5mm Pitch FPC / FFC CONNECTOR , ZIF , SMT type

1. SCOPE

RoHS COMPLIANT PRODUCT

This specification covers the FPC/FFC CONNECTOR BL114H series.

2. ORDERING INFORMATION

PART NO. : **BL** **114H** - **XX** **XX** - **XX** **XX**

1 **2** **3** **4** **5** **6**

1 Series name	BL
2 Series number	114H (H-Halogen Free)
3 Number of contacts	04 ~ 50
4 Termination style	RU – Right Angle / Upper Contact Type RL – Right Angle / Lower Contact Type
5 Packaging	TA – Embossed Tape TU – Tube
6 Plating	ND – 鍍底鍍錫/Tin(Lead Free) Over Nickel GF – 鍍底鍍金 1μ~3μ / 1μ~3μ Gold Flash(Over Nickel)

3. CONNECTOR DIMENSIONS

See attached drawings.

4. MATERIAL

Housing : L.C.P.
Color : Beige
Flammability Rating (UL94V-0)

Slider : L.C.P.
Color : Black
Flammability Rating (UL94V-0)

Contacts : Phosphor Bronze

Solder Pad : Brass

Contact Plating : See Ordering Information

Solder Pad Plating: See Ordering Information

5. RECOMMENDED FPC / FFC

See attached drawings.

6. ACCOMMODATED P.C.B LAYOUT

See attached drawings.

7. RATING

Operating Voltage AC50V , DC50V

Current Rating AC0.4A , DC0.4A

Operating Temperature -55°C ~ +85°C (Including terminal temperature rise)

8.TEST REQUIREMENTS AND PROCEDURES SUMMARY

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
Examination of Product	Meets requirements of product drawing and specification.	Visual inspection No physical damage
ELECTRICAL		
Contact Resistance	30m Ω MAX.	Subject mated contacts assembled in housing to closed circuit current of 10mA MAX. at open circuit voltage 20Mv
Insulation Resistance	50M Ω MIN.	Measure by applying test potential between the adjacent contacts. Current Voltage : 500VDC MIL-STD-202, Method 302, Condition B
Dielectric Withstanding Resistance	No creeping discharge or flashes occur.	Measure by applying test potential between the adjacent contacts. Current Voltage : 250V AC rms., for 1 minute MIL-STD-202, Method 301
MECHANICAL		
Durability	See Note	Mate and unmated connectors for 20cycles. Applicable Cable : 0.3mm thickness FPC
FPC Retention Force	Pos. $\times 0.03$ kgf MIN.	Apply axial load to FPC. Operation speed : 25 ± 3 mm/min.
Vibration	No discontinuities of 1 μ sec. or longer duration.	Amplitude : 1.5mm Sweep time : 10 $\sim$ 55 $\sim$ 10Hz, 1 minute Duration : 2hours in each X.Y.Z axes MIL-STD-202, Method 201
Physical Shock	No discontinuities of 1 μ sec. or longer duration.	Test wave : Half-Sine shock pulses Test peak : 50G MIL-STD-202, Method 213, Condition A
Contact Retention Force	0.03kgf MIN.	Apply an axial pull-off load to contact and solder peg.Operation speed : 25 ± 3 mm/min.

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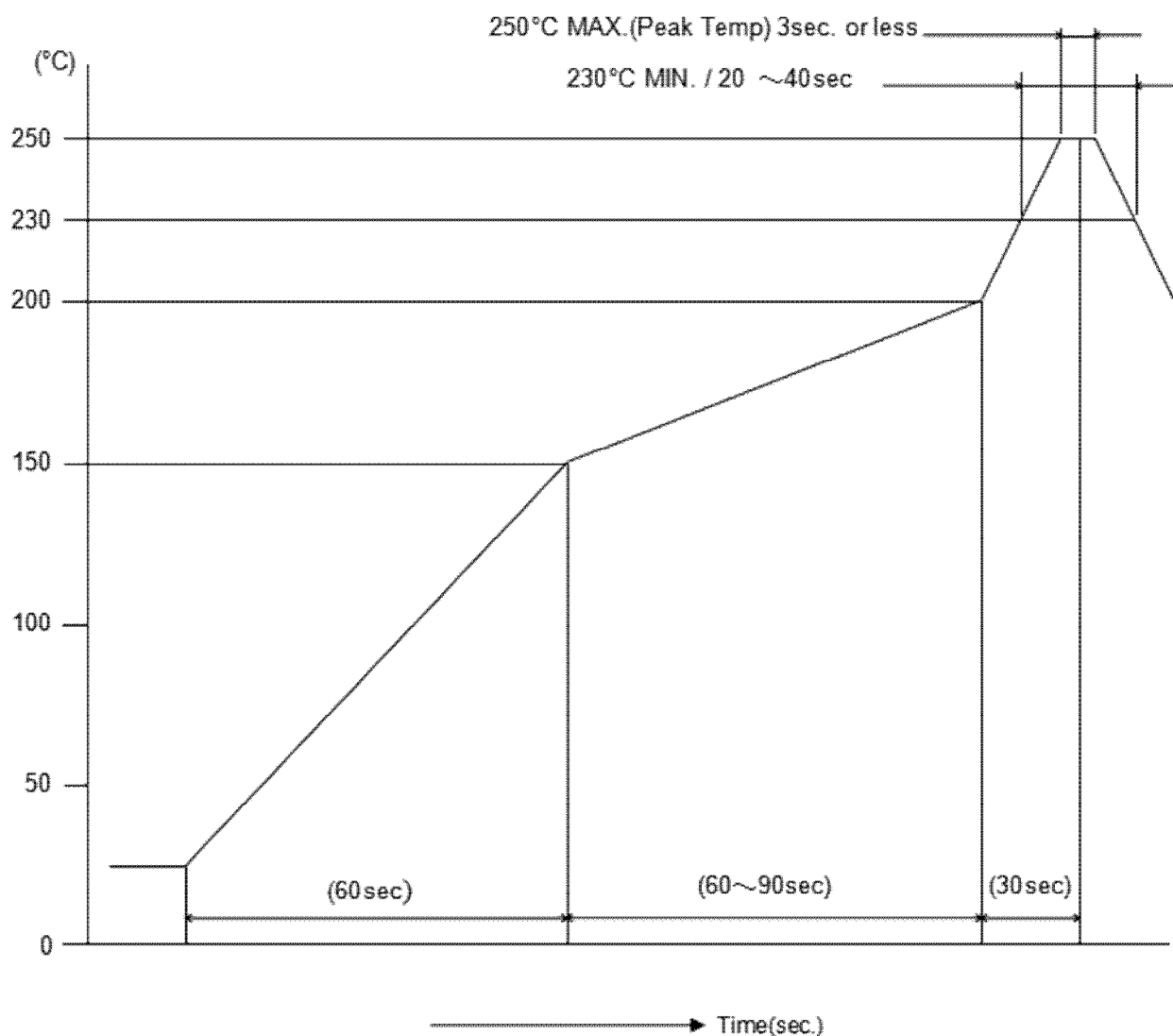
SUNCAGEY 0.5mm Pitch FPC / FFC CONNECTOR , ZIF , SMT type

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
ENVIRONMENTAL		
Humidity-Cycling Test	See Note.	Subject mated connectors. Period : 10cycles Temperature : 25°C ~ 65°C Relative Humidity : 95% R.H. MIL-STD-202, Method 106
Thermal Shock	See Note.	Subject mated connectors. Period : 25cycles Temperature : -55°C /30min. and +85°C /30min. MIL-STD-202, Method 107, Condition A-1
Salt Spray	See Note.	Subject mated connectors. Salt concentration : 5% Period : 48hours Temperature :35°C
PHYSICAL		
Solderability	The test area shall be covered more than 95% of immersed area with fresh solder.	Temperature : 245 ±5°C ,3±0.5sec. <i>For Tin (Lead Free) using</i> MIL-STD-202F, Method 208
Resistance to Soldering Heat	See Note.	Hand soldering Solder Temperature: 380 ± 5°C, 3 ± 0.5sec. <i>For Tin (Lead Free) using</i>
		(When reflowing)See paragraph 8.1

NOTE: Shall meet visual requirements, show no physical damages.

8.1 INFRARED REFLOW CONDITION

■ Tin (Lead Free)



NOTE: Please check the reflow soldering condition by your own devices beforehand .
Because the condition changes by the soldering devices, p.c. boards, and so on.

9.PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

	Test Group							
Test or Examination	A	B	C	D	E	F	G	H
	Test Sequence (a)							
Examination of Product	1	1,6	1,3	1,3	1	1,5	1	1,3
Contact Resistance		2,5				2,4		
Insulation Resistance	2,6							
Dielectric Withstanding Resistance	3,7							
Durability		3						
FPC Retention Force		4						
Vibration			2					
Physical Shock				2				
Contact Retention Force					2			
Humidity-Cycling Test	4							
Thermal Shock	5							
Salt Spray						3		
Solder ability							2	
Resistance to Soldering Heat								2

NOTE : (a) Numbers indicate sequence in which tests are performed.

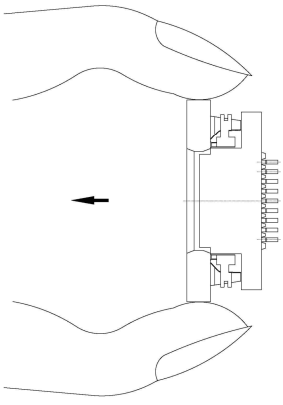
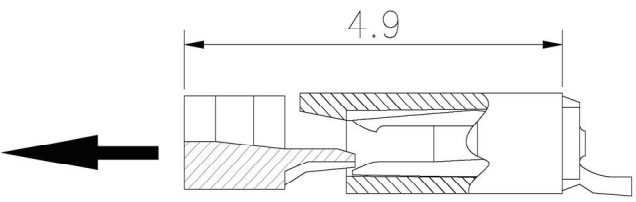
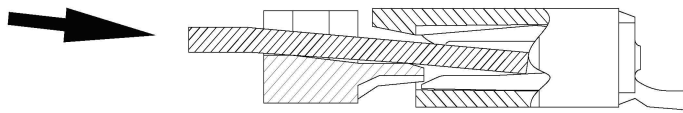
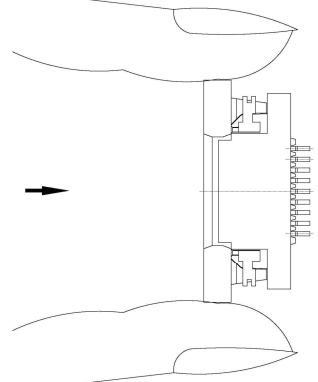
10. TAPE AND REEL PACKAGE SPECIFICATION

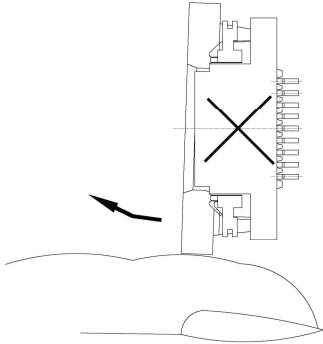
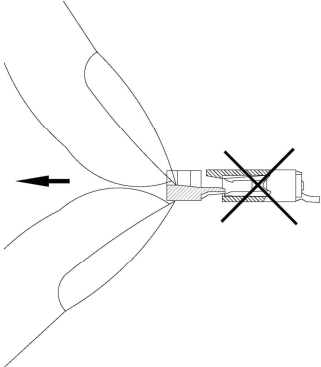
10-1. Tape and Reel Dimensions: See attached drawings.10-2. Specification

No. of Contacts	RL / RU TYPE			
	Width	?Pcs / Reel	?Reels / Carton	CUFT
4	16	3K / 1	9 / 1	1.5
5	16	3K / 1	9 / 1	1.5
6	16	3K / 1	9 / 1	1.5
7	24	3K / 1	7 / 1	1.5
8	24	3K / 1	7 / 1	1.5
9	24	3K / 1	7 / 1	1.5
10	24	3K / 1	7 / 1	1.5
11	24	3K / 1	7 / 1	1.5
12	24	3K / 1	7 / 1	1.5
13	24	3K / 1	7 / 1	1.5
14	24	3K / 1	7 / 1	1.5
15	24	3K / 1	7 / 1	1.5
16	24	3K / 1	7 / 1	1.5
17	24	3K / 1	7 / 1	1.5
18	24	3K / 1	7 / 1	1.5
19	24	3K / 1	7 / 1	1.5
20	24	3K / 1	7 / 1	1.5
21	24	3K / 1	7 / 1	1.5
22	24	3K / 1	7 / 1	1.5
23	32	3K / 1	6 / 1	1.5
24	32	3K / 1	6 / 1	1.5
25	32	3K / 1	6 / 1	1.5
26	32	3K / 1	6 / 1	1.5
27	32	3K / 1	6 / 1	1.5
28	32	3K / 1	6 / 1	1.5
29	32	3K / 1	6 / 1	1.5
30	32	3K / 1	6 / 1	1.5
31	32	3K / 1	6 / 1	1.5
32	32	3K / 1	6 / 1	1.5
33	32	3K / 1	6 / 1	1.5
34	44	3K / 1	5 / 1	1.5
35	44	3K / 1	5 / 1	1.5
36	44	3K / 1	5 / 1	1.5
37	44	3K / 1	5 / 1	1.5
38	44	3K / 1	5 / 1	1.5
39	44	3K / 1	5 / 1	1.5
40	44	3K / 1	5 / 1	1.5
41	44	3K / 1	5 / 1	1.5
42	44	3K / 1	5 / 1	1.5
43	44	3K / 1	5 / 1	1.5
44	44	3K / 1	5 / 1	1.5
45	44	3K / 1	5 / 1	1.5
46	44	3K / 1	5 / 1	1.5
47	44	3K / 1	5 / 1	1.5
48	44	3K / 1	5 / 1	1.5
49	44	3K / 1	5 / 1	1.5
50	44	3K / 1	5 / 1	1.5

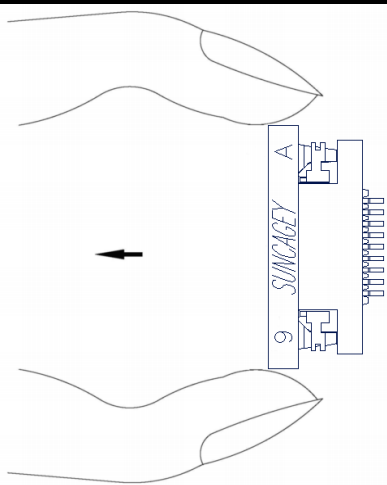
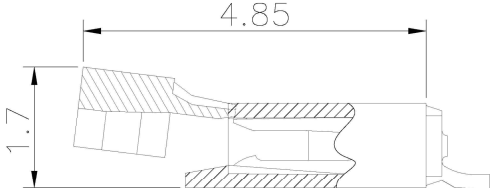
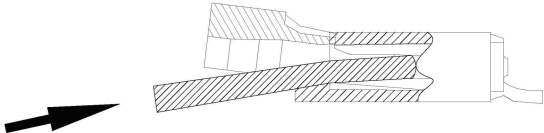
Export Carton Layer : 5 LayerExport Carton Size : 35x 35x 34cm.

11.BL114H-RU 操作指示 INSTRUCTION UPON USAGE

步驟 1: Joining step 1 : 使用拇指或食指，將上蓋平行的稍為往後拉開。	
步驟 2: Joining step 2 : 上蓋平行輕輕地向後拉，拉至定位。	
步驟 3: Joining step 3 : 將 FPC 平行的插入連接器中。	
步驟 4: Joining step 4 : 直到 FPC 完全平行插入且沒有移動，在將上蓋平行推至定位，看 FPC 是否插入適當正確位置。	

警告 Warning!! 在開上蓋時，不可以單邊或者上、下扳，以避免損毀或斷裂。	
警告 Warning!! 上蓋如果強行向後拉開，將可能導致上蓋損毀或斷裂。	

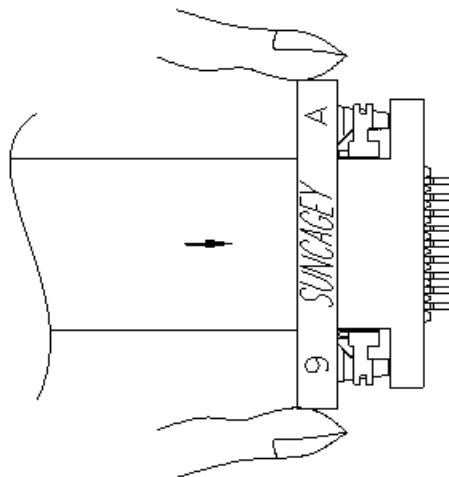
12.BL114H-RL 操作指示 INSTRUCTION UPON USAGE

步驟 1: Joining step 1 : 使用拇指或食指，將上蓋平行的稍為往後拉開。	
步驟 2: Joining step 2 : 拉開上蓋，在尺寸範圍之內。	
步驟 3: Joining step 3 : 將 FPC 平行的插至定位。	

步驟 4:

Joining step 4 :

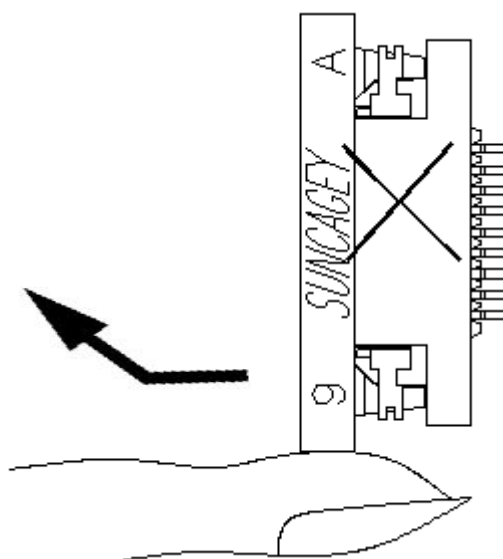
直到 FPC 完全平行插入且沒有移動，在以食指將上蓋壓至定位，看 FPC 是否插入適當正確位置。



警告

Warning!!

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警告

Warning!!

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