



RoHS

# Specification

## 规格书

Customer Name \_\_\_\_\_

客户名称

Customer P/N \_\_\_\_\_

客户品号

Factory P/N HL-A-3528D49W-2-S1-08-PCT-HR3-RM

公司品号

Sending Date \_\_\_\_\_

送样日期

Client approval 客户审核			Hongli approval 鸿利光电审核		
Approval 核准	Audit 确认	Confirmation 制作	Approval 核准	Audit 确认	Confirmation 制作
			林德顺		黄雪梅
Qualified 接受	Disqualified 不接受		DATE: 日期:		

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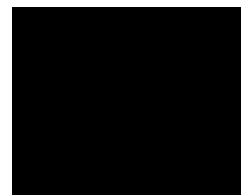
# HL-A-3528D49W-2-S1-08-PCT-HR3-RM

- PLCC-2 Package.(PLCC-2
- Extremely wide viewing angle.
- Suitable for all SMT assembly and solder process. SMT
- Available on tape and reel.
- Moisture sensitivity level: Level 4. Level 4
- Package:3000pcs/reel..( 3000PCS
- RoHS compliant. (RoHS



## 描述

The White LED which was fabricated using a blue chip and the phosphor  
白光LED由蓝光芯片与荧光粉激发而成



OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

注意：操作时应注意静电敏感  
释放设备装置

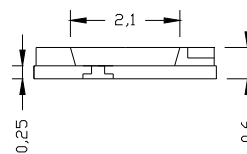
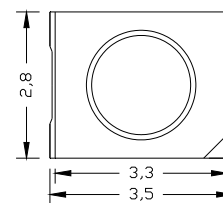
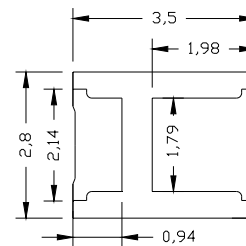
Optical indicator

Indoor display

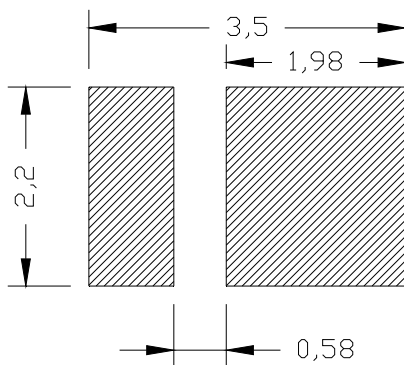
Backlight for LCD, switch and Symbol, display

LCD

## 封装尺寸



## 建议焊盘尺寸图



Notes:

备注

1. All dimension units are millimeters. 所有标注尺寸单位为毫米

2.All dimension tolerance is  $\pm 0.15\text{mm}$  unless otherwise noted. 除特别标注外，所有尺寸允许公差 $\pm 0.15\text{mm}$



Part No.	Dice	Lens Type	Luminous flux(lm) @ 300mA		Viewing Angle
			Min	Typ	201/2
HL-3528D49		y D			

Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Forward Voltage	V <sub>F</sub>	2.8	--	3.6	V	I <sub>F</sub> =300mA
Reverse Current	I <sub>R</sub>	--	--	5	mA	V <sub>R</sub> = 5V
Color Rendering Index	Ra	80	--	--		I <sub>F</sub> =300mA
Color Coordinates	X	--	0.274	--	--	I <sub>F</sub> =300mA
	Y	--	0.254	--	--	I <sub>F</sub> =300mA



	97-99
	99-101
	101-103
	103-105
	105-107
	107-109
	109-111
	111-113
	113-115
	115-117

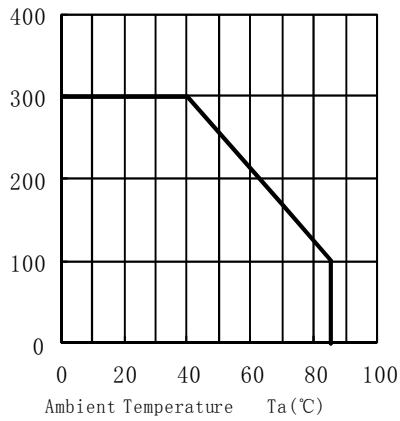
	2.8-2.9
	2.9-3.0
	3.0-3.1
	3.1-3.2
	3.2-3.3
	3.3-3.4
	3.4-3.5

	D5
	D4
	D3

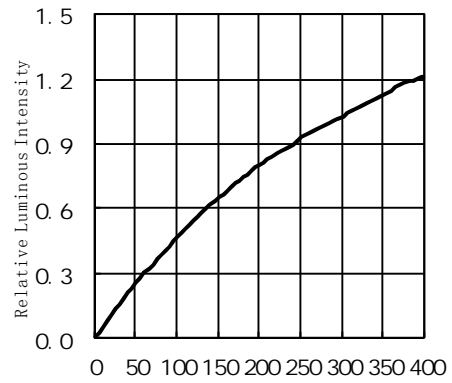
GROUP								
	X1	Y1	X2	Y2	X3	Y3	X4	Y4
D5	0.2719	0.2636	0.2764	0.2729	0.2845	0.2599	0.2808	0.2521
D4	0.2676	0.2550	0.2719	0.2636	0.2808	0.2521	0.2768	0.2436
D3	0.2631	0.2458	0.2676	0.2550	0.2768	0.2436	0.2729	0.2352



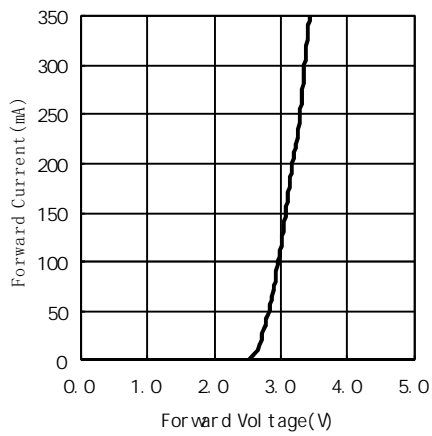
Ambient Temperature vs. Forward Current



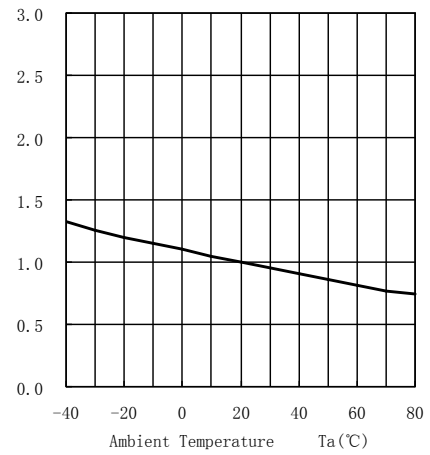
Forward Current VS. Relative Intensity



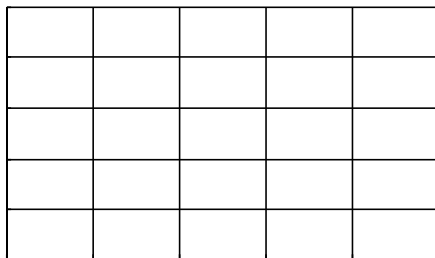
Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity



Relative spectral emission



Radiation diagram



HL-A-3528D49W-2-S1-08-PCT-HR3-RM

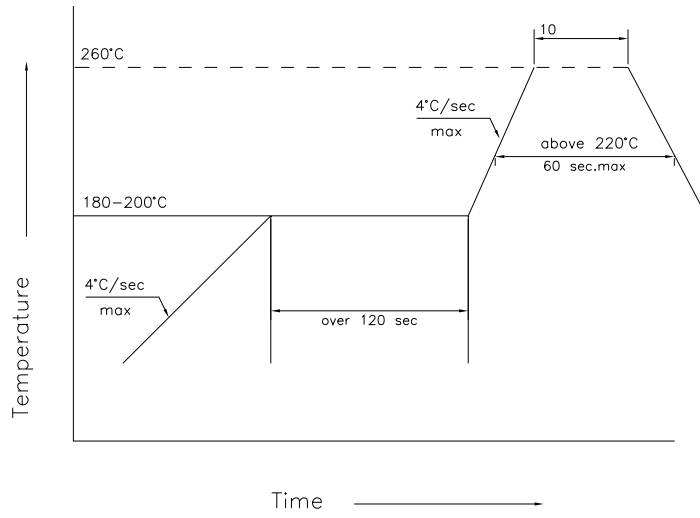
Test Items	Ref. Standard	Test Condition	Time	Quantity	Ac/Re /
Reflow	JESD22-B106	Temp:260 max T=10 sec	3 times.	22Pcs.	0/1
Temperature Cycle	JESD22-A104	100 ±5 30 min. 5 min -40 ±5 30 min.	100 Cycles	22Pcs.	0/1
High Temperature Storage	JESD22-A103	Temp:100 ±5	1000Hrs.	22Pcs.	0/1
Low Temperature Storage	JESD22-A119	Temp:-40 ±5	1000Hrs.	22Pcs.	0/1
Life Test	JESD22-A108	Ta=25 ±5 IF=300mA	1000Hrs.	22Pcs.	0/1
High Temperature High Humidity Life Test	JESD22-A101	85 ±5 / 85%RH IF=100mA	1000Hrs.	22Pcs.	0/1

Test Items	Symbol	Test Condition	Failure Criteria	
			Min.	Max.
Forward Voltage	VF	IF=300mA	--	U.S.L*)x1.1
Reverse Current	IR	VR = 5V	--	U.S.L*)x2.0
Luminous Flux	Lm	IF=300mA	L.S.L*)x0.7	--

U.S.L: Upper Specification Limit

L.S.L: Lower Specification Limit

\*The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.





1.Handle the component along the side surface by using forceps or appropriate tools; ng oJ p h



5.LED operating environment and sulfur element composition cannot be over 100PPM in the LED mating usage material.

LED LED 100PPM

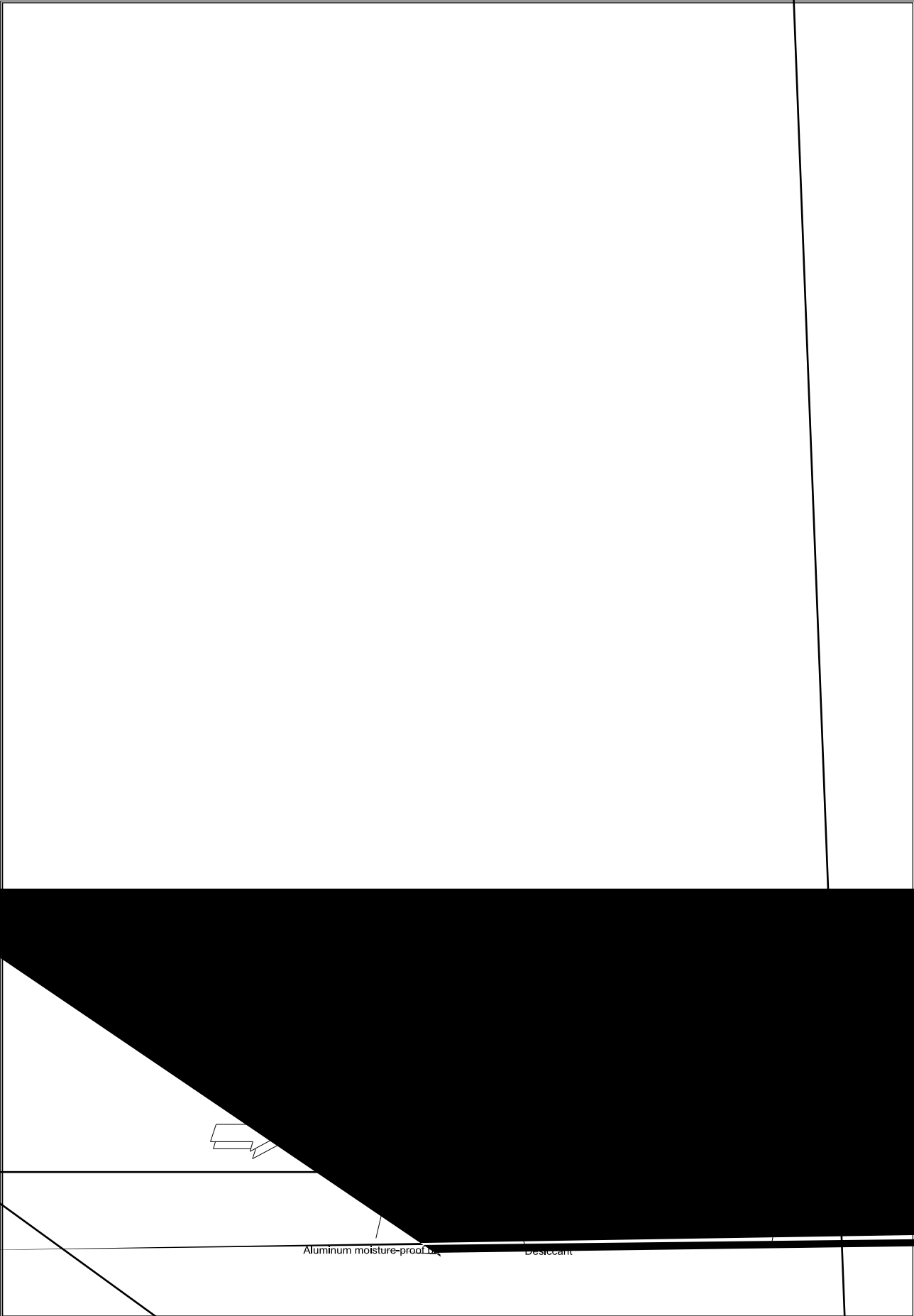
6.When we need to use external glue for LED application products, please make sure that the external glue matches the LED packaging glue. Additionally ,as most of LED packaging glue is silica gel, and it has strong Oxygen permeability as well as strong moisture permeability; in order to prevent external material from getting into the inside of LED, which may cause the malfunction of LED, the single content of Bromine element is required to be less than 900PPM,the single content of Chlorine element is required to be less than 900PPM,the total content of Bromine element and Chlorine element in the external glue of the application products is required to be less than 1500PPM

LED LED LED LED LED  
900PPM LED LED LED 900PPM  
1500PPM



7.Other points for attention, please refer to our LED user manual.

LED



Aluminum moisture-proof box

Desiccant