



RoHS

Specification

规格书

Customer Name _____

客户名称

Customer P/N _____


客户品号

Factory P/N **HL-A-3014H421W-S1-08-HR3**

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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: 1.
2.
3.



HL-A-3014H421W-S1-08-HR3

Description

The White LED which was fabricated using a blue chip and the phosphor LED

Applications

- Optical indicator
- Indoor display
- Automotive lighting
- Backlight for LCD, switP

Package Dimensions

P swit□ V□□ 9* h□ □ ~ □ 1□

Notes:

1 All dimension units are millimeters.

2.All dimension tolerance is $\pm 0.15\text{mm}$ unless otherwise noted.

$\pm 0.15\text{mm}$

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Selection Guide

Part No.	Chip Materials	Lens Type
HL-A-3014H421W-S1-08-HR3	InGaN	Yellow Diffused

Mass Production list

Part No.	CCT K Min	CCT K Typ	CCT K Max	Φ Im Min	Φ Im Typ	Test Condi- tions
HL-A-3014H421W- S1-08-HR3	5700	6000	6500	12.0	12.5	IF=30mA
	4750	5000	5300	12.0	12.5	IF=30mA
	3800	4000	4250	12.0	12.5	IF=30mA
	2800	3000	3100	11.5	12.0	IF=30mA

Electrical / Optical Characteristics at Ta=25°C

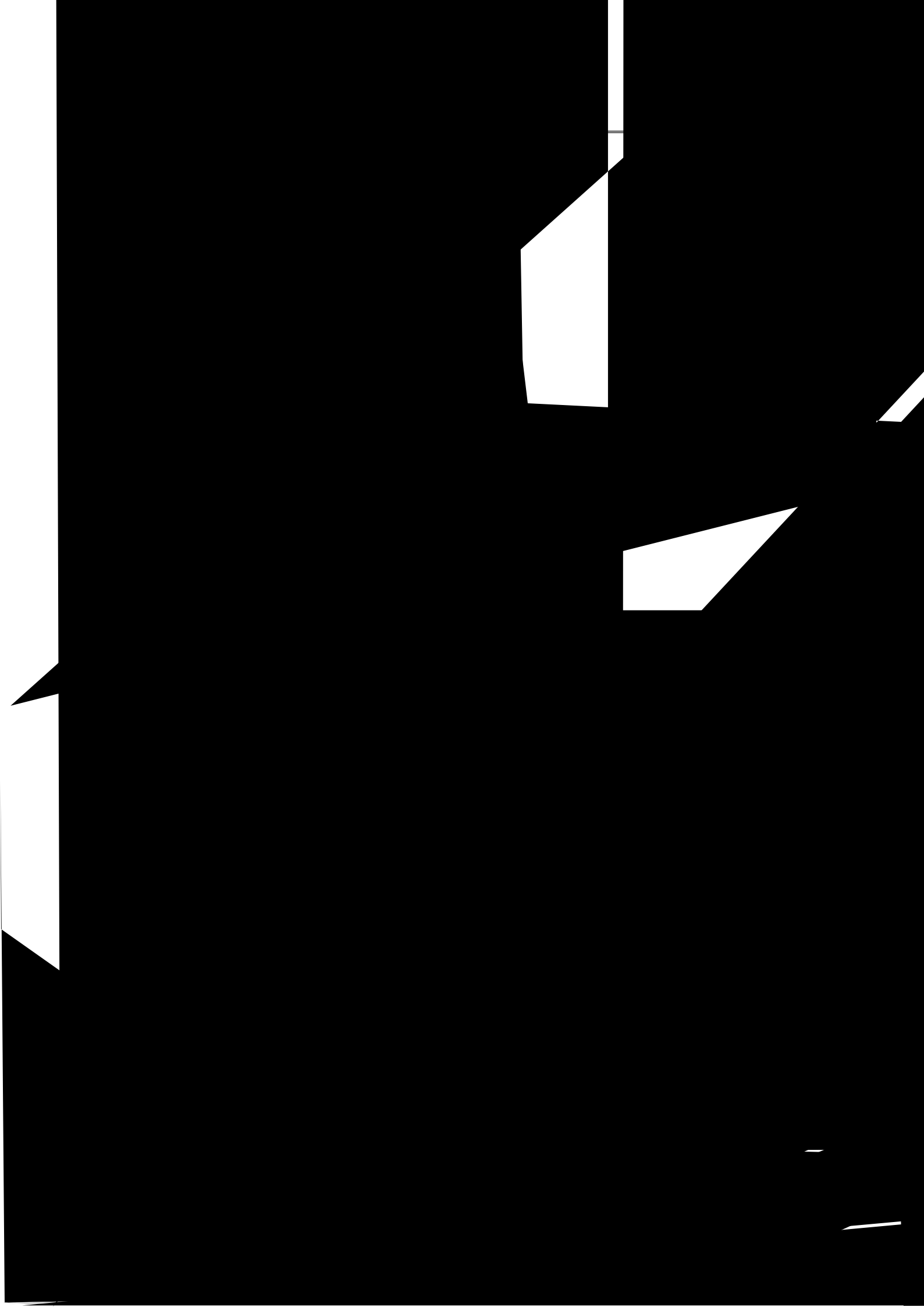
Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Forward Voltage	V _F	2.6	--	3.2	V	IF=30mA
Viewing Angle	2θ _{1/2}	--	120	--	Deg	IF=30mA
Color Rendering Index	R _a	80	--	--		IF=30mA
Reverse Current	I _R	--	--	10	μA	VR = 5V

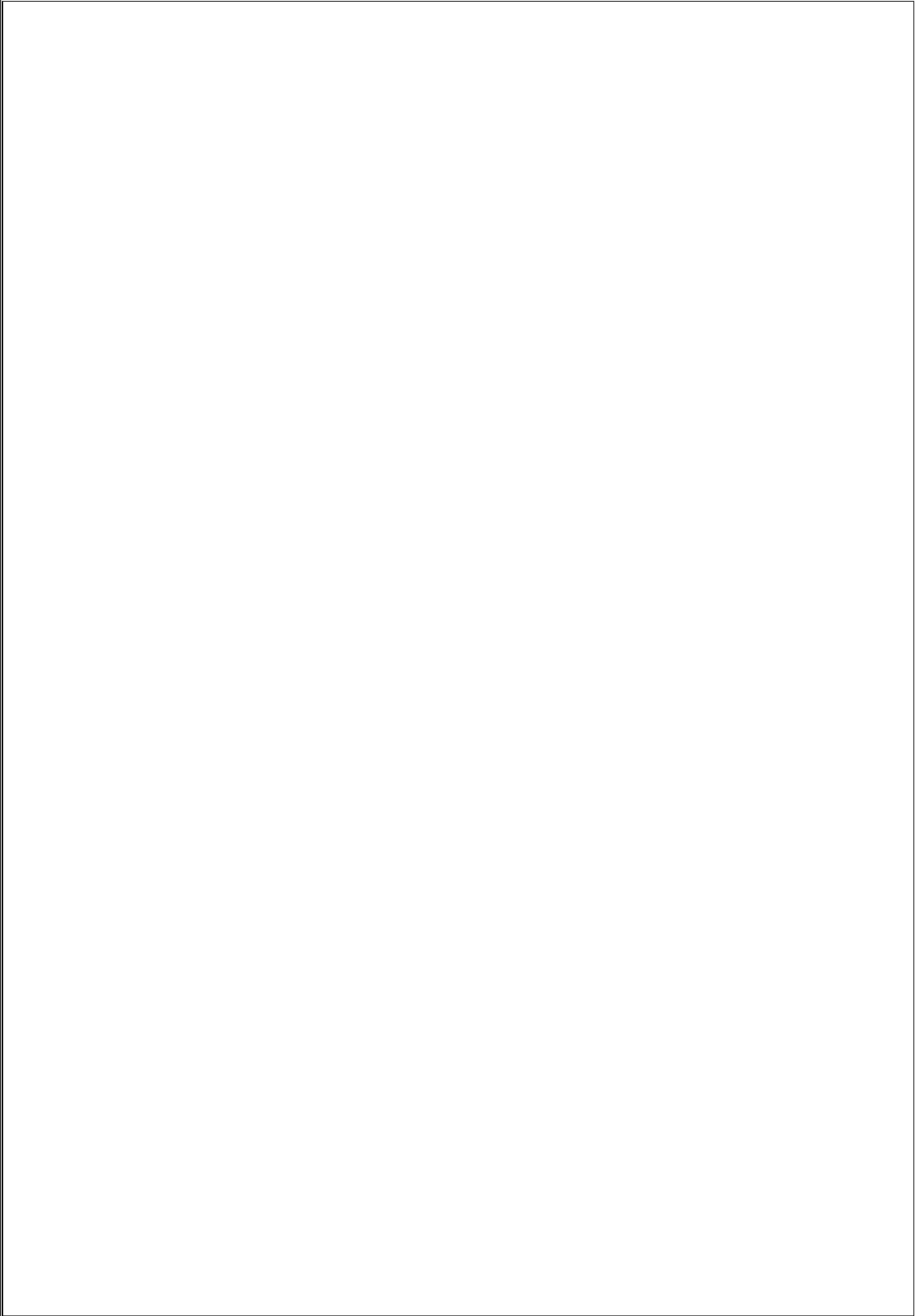
Note:(

- 2θ_{1/2} is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2θ_{1/2} 1/2
- The above luminous flux measurement allowance tolerance is ±10%.
±10%
- The above Color Rendering Index measurement allowance tolerance is 2
2
- The above forward voltage measurement allowance tolerance is 0.1V
0.1V
- The above color coordinates measurement allowance tolerance is 0.003.
0.003



Parameter	Symbol	Rating	Units
Power Dissipation	Pd	120	mW
Forward Current	IF	40	mA
Peak Forward Current [1]	IFP	100	mA
Reverse Voltage	VR	5	V





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Bin Range of Chromaticity Coordinate Bin

CCT	Bin Code Bin	CIE_x	CIE_y	Bin Code Bin	CIE_x	CIE_y	
6000K	C32 6000-6500K	0.3205	0.3481	C42 5700-6000K	0.3211	0.3468	
		0.3117	0.3393		0.3294	0.3542	
		0.3131	0.329		0.3296	0.3429	
		0.3213	0.3371		0.3219	0.3360	
		0.3213	0.3371		0.3219	0.3360	
	C33 6000-6500K	0.3131	0.329	C43 5700-6000K	0.3296	0.3429	
		0.3150	0.3190		0.3298	0.3315	
		0.3226	0.3262		0.3227	0.3251	
		0.3376	0.3616		0.3461	0.3685	
		0.3461	0.3685		0.3545	0.3754	
5000K	C62 5000-5300K	0.3451	0.3561	N12 4750-5000K	0.3530	0.3625	
		0.3372	0.3497		0.3451	0.3561	
		0.3372	0.3497		0.3451	0.3561	
		0.3451	0.3561		0.3530	0.3625	
		0.3441	0.3437		0.3514	0.3496	
	C63 5000-5300K	0.3368	0.3378	N13 4750-5000K	0.3441	0.3437	
		0.3731	0.3853		N52 3800-4000K	0.3839	0.3920
		0.3839	0.3920			0.3947	0.3987
		0.3803	0.3777			0.3903	0.3839
		0.3703	0.3716			0.3803	0.3777
0.3703	0.3716	0.3803	0.3777				
4000K	N42 4000-4250K	0.3803	0.3777	N53 3800-4000K	0.3903	0.3839	
		0.3767	0.3634		0.3858	0.3690	
		0.3675	0.3578		0.3767	0.3634	

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CCT	Bin Code	Bin	CIE_x	CIE_y	Bin Code	Bin	CIE_x	CIE_y
3000K	W42	3000-3100K	0. 4354	0. 4142	W43	3000-3100K	0. 4316	0. 4059
			0. 4430	0. 4165			0. 4390	0. 4082
			0. 4390	0. 4082			0. 4350	0. 3998
			0. 4316	0. 4059			0. 4279	0. 3975
	W44	3000-3100K	0. 4279	0. 3975	W52	2900-3000K	0. 4430	0. 4165
			0. 4350	0. 3998			0. 4505	0. 4189
			0. 4310	0. 3915			0. 4463	0. 4106
			0. 4241	0. 3892			0. 4390	0. 4082
	W53	2900-3000K	0. 4390	0. 4082	W54	2900-3000K	0. 4350	0. 3998
			0. 4463	0. 4106			0. 4420	0. 4022
			0. 4420	0. 4022			0. 4378	0. 3939
			0. 4350	0. 3998			0. 4310	0. 3915
W62	2800-2900K	0. 4505	0. 4189	W63	2800-2900K	0. 4463	0. 4106	
		0. 4581	0. 4212			0. 4536	0. 4129	
		0. 4536	0. 4129			0. 4492	0. 4045	
		0. 4463	0. 4106			0. 4420	0. 4022	
W64	2800-2900K	0. 4420	0. 4022					
		0. 4492	0. 4045					
		0. 4447	0. 3962					
		0. 4378	0. 3939					

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Reliability Test Items And Conditions

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=30mA	1000Hrs.	22Pcs.	0/1
High Temperature High Humidity Life Test	JESD22-A101	85 ±5 / 85%RH IF=20mA	1000Hrs.	22Pcs.	0/1

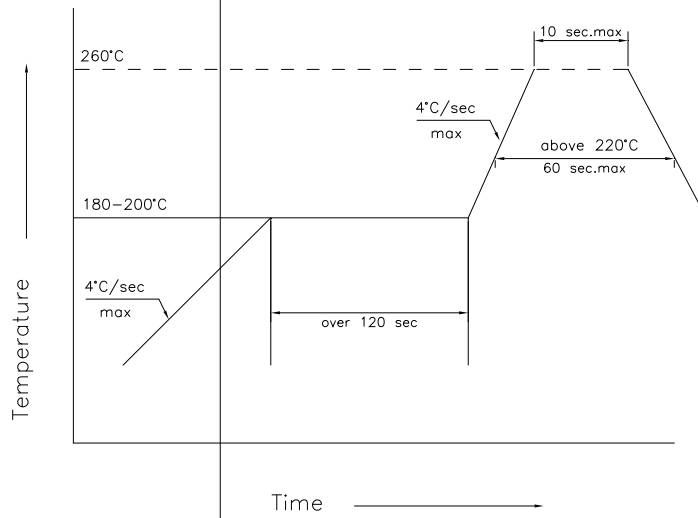
Failure Criteria

Test Items	Symbol	Test Condition	Failure Criteria	
			Min.	Max.
Forward Voltage	VF	IF=30mA	--	U.S.L*)x1.1
Reverse Current	IR	VR = 5V	--	10uA
Luminous Flux	Im	IF=30mA	L.S.L*)x0.7	--

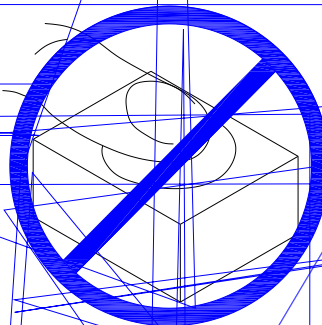
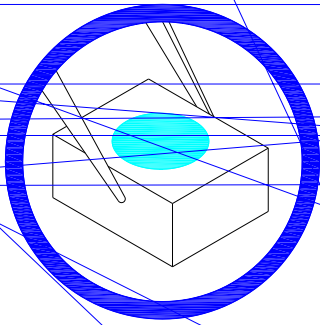
U S L Upper Specification Limit

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; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.

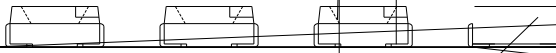


5.LED operating environment and sulfur element composition cannot be over 100PPM in the LED mating usage material

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 LED 900PPM 900PPM LED 1500PPM 900PPM



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

LED

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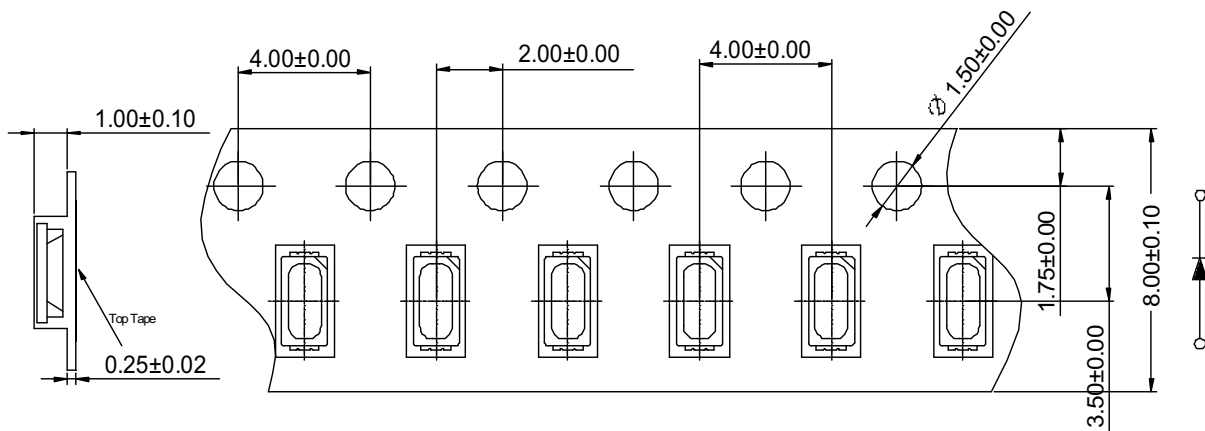
Label

IV: Luminous intensity rank 亮度等级
 VF: Forward voltage rank 电压等级
 X/Y: Coordinate rank 色坐标
 TC: Color temperature 色温

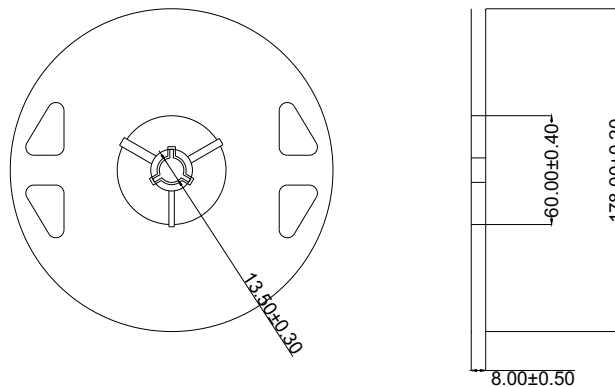


Tape Specifications (Units : mm)

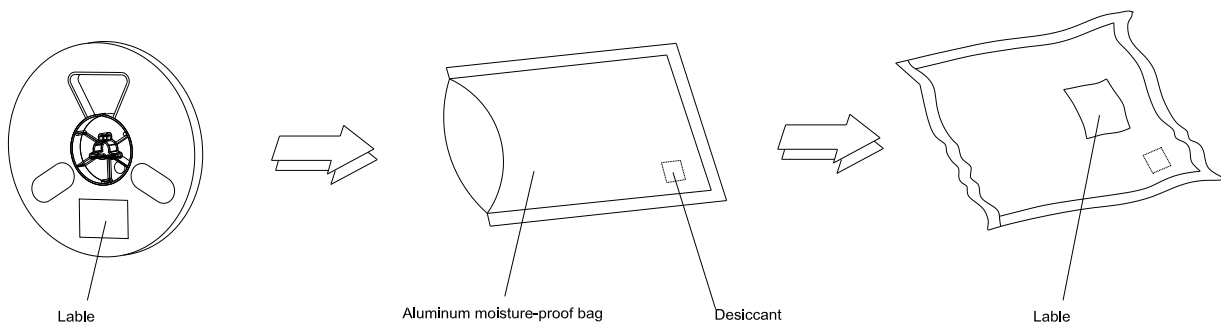
mm)



Reel Dimensions



Moisture Resistant Packaging



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit: mm 注: 标注公差为 $\pm 0.1\text{mm}$ 单位: mm