HONGLITRONIC
鸿利光电

RoHS

Specification

规 格 书

Client approval			Hongli approval		
Approval	Audit	Confirmation	Approval	Audit	Confirmation
Qualified	Disqualified		DATE:		

- 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:4000pcs/reel..(4000PCS
- RoHS compliant. (RoHS

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

LED

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

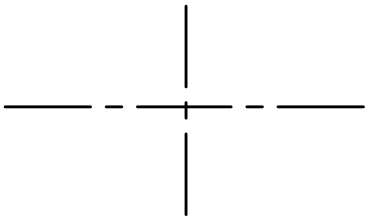
■ Automotive lighting

■ Backlight for LCD, switch and Symbol, display

LCD

■ Tubular light application

■ General use



Notes:

1 All dimension units are millimeters.

2.All dimension tolerance is ±0.15mm unless otherwise noted. ±0.15mm

Part No.	Chip Materials	Lens Type
HL-A-3014H416W-S1-08L-HR3	InGaN	Yellow Diffused

Part No.	CCT K Min	CCT K Typ	CCT K Max	Φ lm Min	Φ lm Typ	Test Condi-tions
HL-A-3014H416W-S1-08L-HR3	5700	6000	6500	11.5	12.0	IF=30mA
	4750	5000	5300	11.5	12.0	IF=30mA
	3800	4000	4250	11.5	12.0	IF=30mA
	2800	3000	3100	11.0	11.5	IF=30mA

Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Forward Voltage	VF	2.6	- -	3.4	V	IF=30mA
Viewing Angle	2θ1/2	- -	120	- -	deg	IF=30mA
Color Rendering Index	Ra	80	- -	- -		IF=30mA
Reverse Current	IR	- -	- -	10	μA	VR = 5V

Note:(

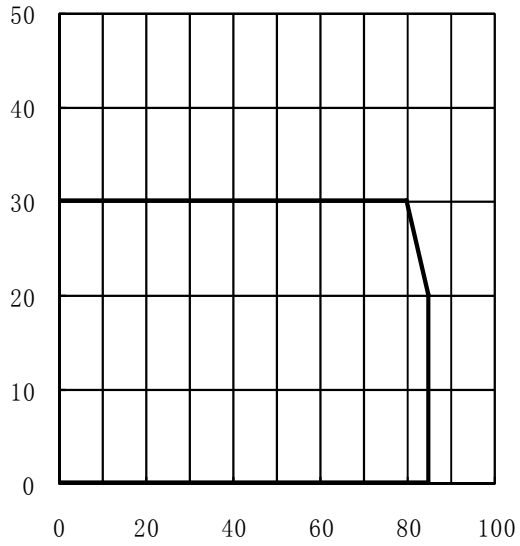
1. 2θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
   2θ1/2 1/2
2. The above luminous flux measurement allowance tolerance is ±10%.
   ±10%
3 The above Color Rendering Index measurement allowance tolerance is 2
   2
4 The above forward voltage measurement allowance tolerance is 0 1V
   0 1V
5. The above color coordinates measurement allowance tolerance is 0 003.
   0 003

Parameter	Symbol	Rating	Units
Power Dissipation	Pd	100	mW
Forward Current	IF	30	mA
Peak Forward Current [1]	IFP	100	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	1000	V
Operating Temperature	Topr	-40 ~ +85	
Storage Temperature	Tstg	-40 ~ +100	
Thermal Resistance Junction / Soldering point	Rthj-s	50	W
Junction Temperature	Tj	115	

Note:

1. 1/10 Duty cycle, 0.1ms pulse width. 0.1ms, 1/10

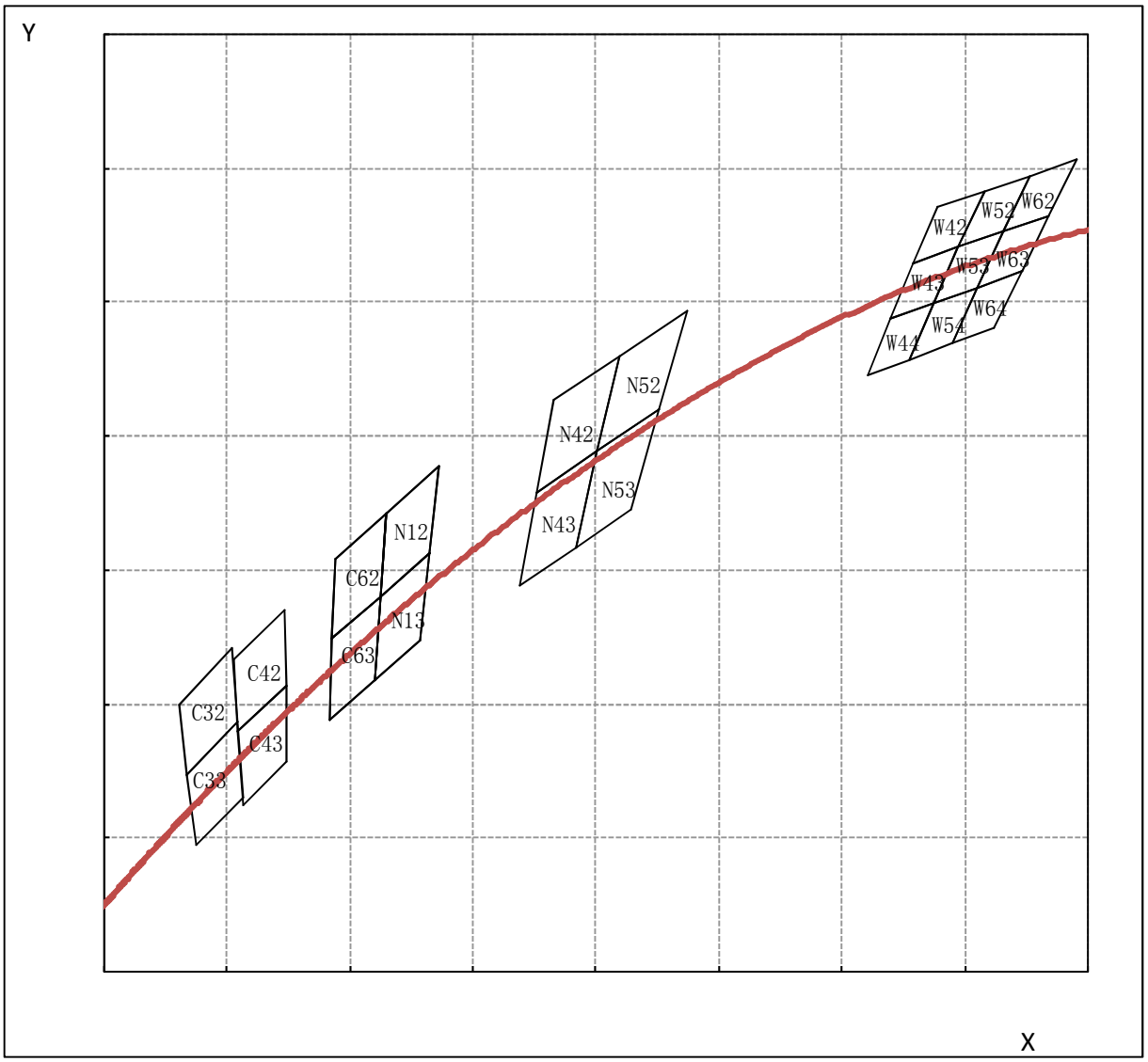
Soldering Temperature vs. Forward Current



Forward Current VS. Relative Intensity

Forward Voltage VS. Forward Current

Ambient Temperature VS. Relative Intensity


Y
X
C32
C42
C33
C43
C62
N12
C63
N13
N42
N52
N43
N53
W42
W52
W62
W43
W53
W63
W44
W54
W64

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
	C33 6000-6500K	0.3213	0.3371	C43 5700-6000K	0.3219	0.3360
		0.3131	0.329		0.3296	0.3429
		0.3150	0.3190		0.3298	0.3315
		0.3226	0.3262		0.3227	0.3251
5000K	C62 5000-5300K	0.3376	0.3616	N12 4750-5000K	0.3461	0.3685
		0.3461	0.3685		0.3545	0.3754
		0.3451	0.3561		0.3530	0.3625
		0.3372	0.3497		0.3451	0.3561
	C63 5000-5300K	0.3372	0.3497	N13 4750-5000K	0.3451	0.3561
		0.3451	0.3561		0.3530	0.3625
		0.3441	0.3437		0.3514	0.3496
		0.3368	0.3378		0.3441	0.3437
4000K	N42 4000-4250K	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
	N43 4000-4250K	0.3703	0.3716	N53 3800-4000K	0.3803	0.3777
		0.3803	0.3777		0.3903	0.3839
		0.3767	0.3634		0.3858	0.3690
		0.3675	0.3578		0.3767	0.3634

Bin

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			

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

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.

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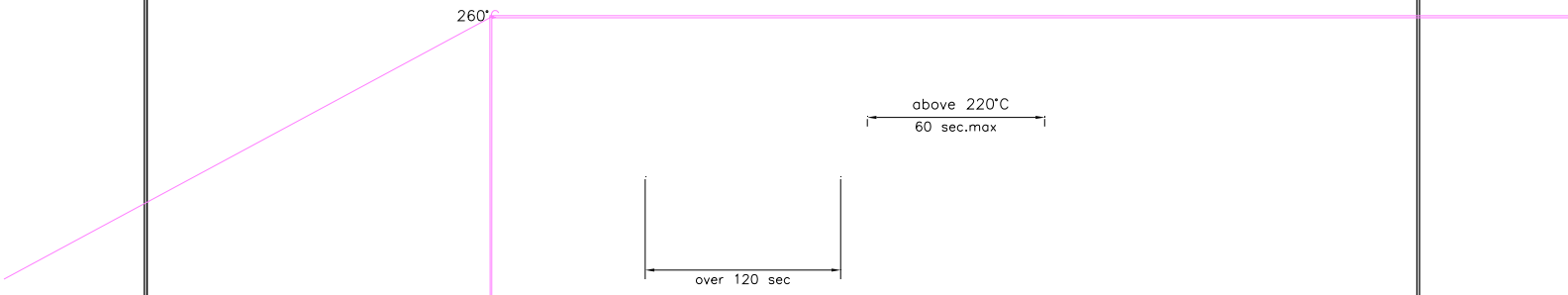
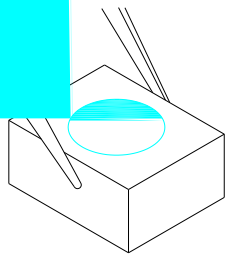

260°C
above 220°C
60 sec.max
over 120 sec

component along the side surface by using forceps or appropriate tools; do not directly dle the silicone lens surface, it may damage the internal circuitry.

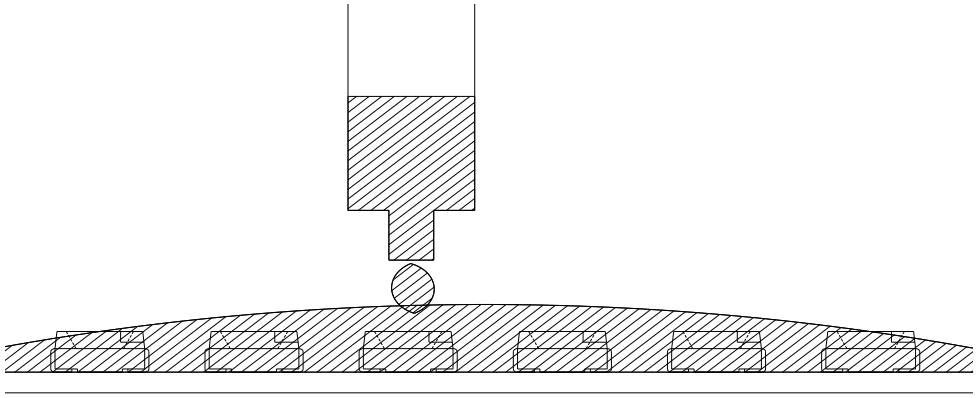


5.LED operating environment and sulfur element composition cannot be over 100PPM in the LED mating usage material

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 900PPM
900PPM LED 1500PPM



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

LED