

承 認 書

SPECIFICATION FOR APPROVAL

● 客戶名稱	
● Customer	
● 客戶品號	
● Customer Part No.	
● 產品品號	HC-J-S30W95C30
● Brightek Part No.	
● 產品規格描述	3030球頭暖白光
● Specification	
● 製錶人	王清
● Prepared By	
● 審 核	李东平
● Checkedy	
● 客 戶 回 簽	
● Customer	
● 送樣日期:	
● Deliver date:	

說明：一、謹致執事者：茲提供敝公司產品之有關詳細規格及圖面資料，敬請給予辦理測試認定手續。同時敬請 送返一份附有貴公司簽認之測試認定後之樣品認定書。

We are sending you our specification and drawings for your approval. Please return to us one

copy "For Approval" with your approved signatures.

二、客戶意見欄 Customer' S Proposal

☐ Approve 承認 (請於認可欄中簽名)

☐ Disagree 不同意

Reason 原因:

光宇集團 中高端光电元件定制企业，20多年封装经验，品质稳定，值得信赖，体现光的价

光宇集团国际（香港）有限公司

GTU Group International (HK) Co., Limited

广东光宇半导体科技有限公司

工厂地址：东莞市寮步镇松湖智谷A2栋3楼

东莞市弘呈光电有限公司

DongGuan Hong cheng Optoelectronics Co., Ltd.

工厂地址：广东省东莞市樟木头镇莞樟路樟木头段15号15栋2108号

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业务联系人：李顺阳 13925714318 (微信同号) 销售总监

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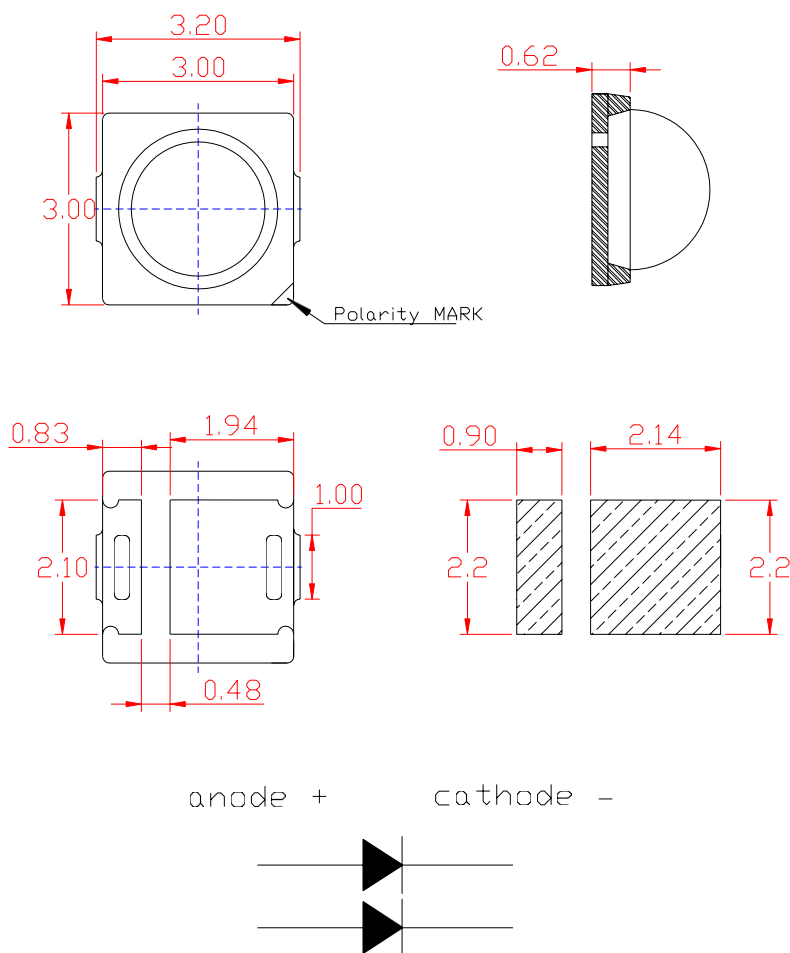


版本/版次	修改日期	修改内容

◆ Mechanical Specification (产品特性)

- **3.00mm*3.00mm*0.62mm SMD LED**
(表面贴片器件尺寸为3.00mm*3.00mm*0.62mm)
- **The materials of the LED dice is InGaN**
(发光二极管所用芯片材料为氮化镓)
- **Suitable for all SMT assembly and welding process**
(适用于的所有的SMT装配和焊接工艺)
- **moisture resistant grade: Level 5**
(防潮等级Level 5)

◆ Package Outline (封装尺寸)



NOTES:

1. All dimensions are in millimeters (所有标注尺寸的单位均为毫米)
2. Tolerances are $\pm 0.2\text{mm}$ unless otherwise noted (除了特别注明, 所有标注尺寸的公差均为 $\pm 0.2\text{mm}$)

◆ **Absolute maximum ratings at Ta=25℃ (绝对最大额定值)**

Parameters (参数)	Symbol (符号)	Value (值)	Unit(单位)
Power Dissipation (功耗)	Pd	500	mW
Forward Current (正向电流)	IF	300	mA
Pulse Forward Current (脉冲电流)	IFP	350	mA
Reverse Voltage (反向电压)	VR	7	V
Electrostatic Discharge (静电)	ESD	2000(HBM)	V
Operating Temperature (操作温度)	Topr	-40 ~ +85 ℃	℃
Storage Temperature (保存温度)	Tstg	-40 ~ +100 ℃	℃

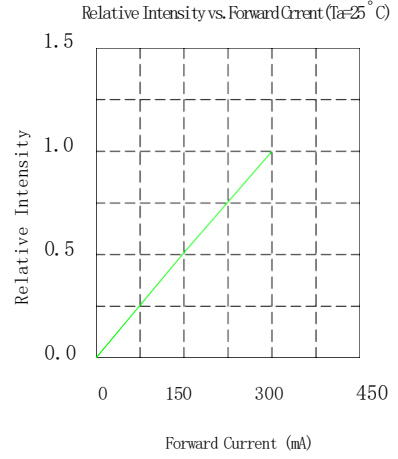
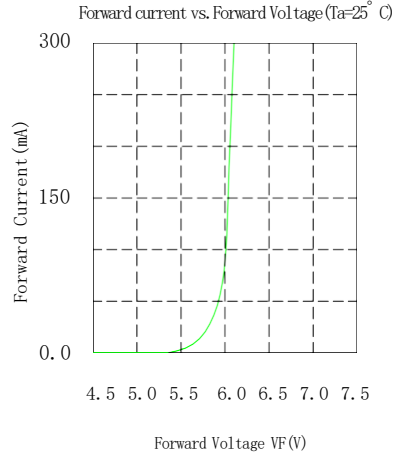
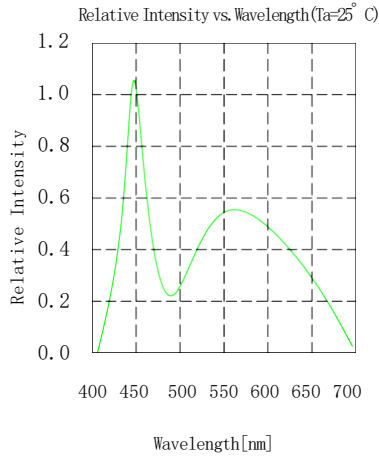
◆ **Electro-optical characteristics at Ta=25℃ (电光特性)**

Item (项目)	Symbol (符号)	Mix (最小)	Typ (平均)	Max (最大)	Unit (单位)	Conditions (测试条件)
Forward voltage (正向电压)	VF	3.0		3.4	V	IF=300mA
Reverse current (反向电流)	IR	--	--	5	μA	VR = 7V
x, y	X	0.436	--	0.448	--	IF=300mA
	Y	0.418	--	0.432	--	IF=300mA
Chromaticity (色温)	TC	3000	--	3200	K	IF=300mA
Color Rendering (显示指数)	Ra	80	--		/	IF=300mA
Viewing angle (发光角度)	2θ 1/2		120		Deg	IF=300mA
Luminous intensity (发光强度)	Φ	100	--	110	Lm	IF=300mA
Color tolerance (色容差)	SDCM					IF=300mA

NOTE: (Tolerance: $I_v \pm 10\%$, $\lambda_d \pm 2nm$, $V_f \pm 0.05V$) (公差: $I_v \pm 10\%$, $\lambda_d \pm 2nm$, $V_f \pm 0.05V$)

◆ Typical optical characteristics curves (典型光学特性曲线)

Spectral Distribution



Detrating

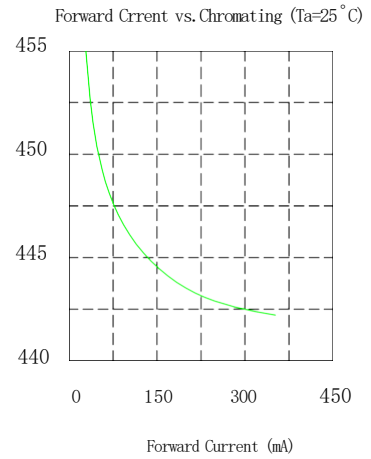
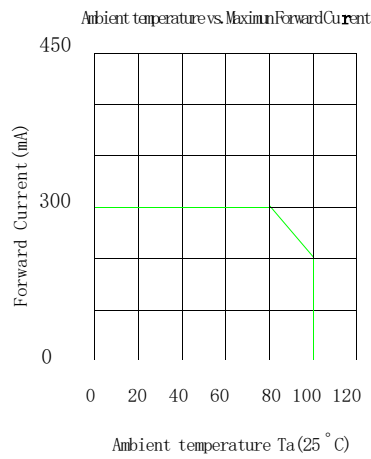
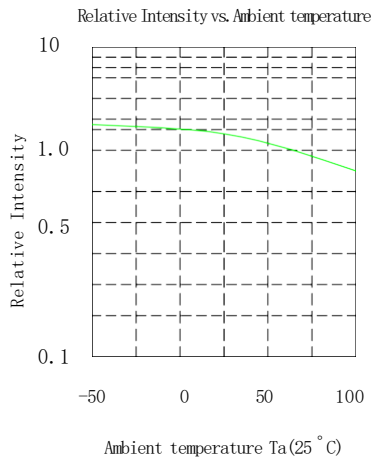
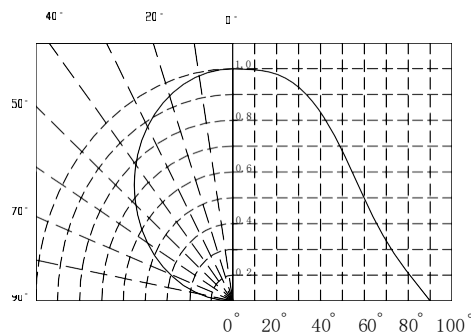
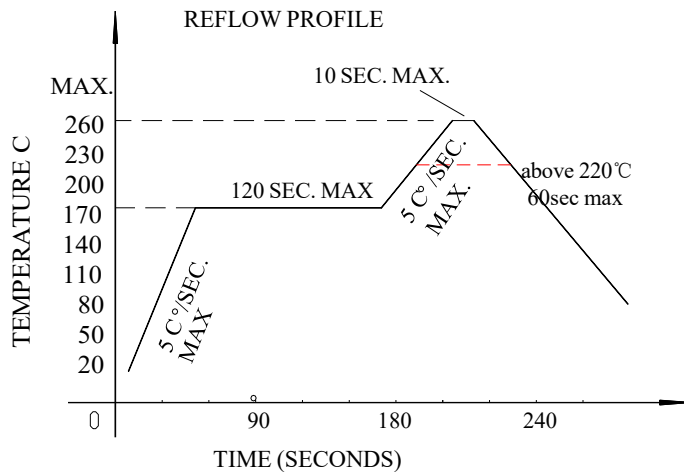


Diagram characteristics of radiation



◆ Reflow profile（焊接说明）

■ SMD Reflow Soldering Instructions（回流焊简介）



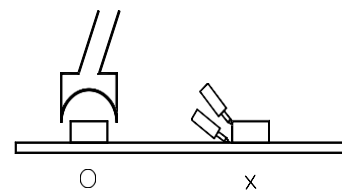
1. Reflow soldering should not be done more than two times
回流焊次数不应超过 2 次
2. When soldering ,do not put stress on the LEDs during heating
焊接时，在加热过程中不能有应力作用于 LED 灯珠

■ Soldering iron（烙铁）

1. When hand soldering, keep the temperature of the iron under 300°C, and at that temperature keep the time under 3 sec.
手工焊接时，烙铁温度控制在 300°C 以下，且时间不可超过 3 秒
2. The hand soldering should be done only a time
手工焊接只可焊接一次

■ Rework（返工）

1. Customer must finish rework within 5 sec under 260°C
温度保持在 260°C 以下，5 秒内完成返工作业
2. The head of iron can not touch the LEDs
烙铁不能碰触到 LED 灯珠
3. Twin-head type is preferred.
双头形烙铁为最佳



■ CAUTIONS（注意事项）

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when using the picking up nozzle, the pressure on the silicone resin should be proper.

封装的 LED 为硅材料。该 LED 具有软表面的封装顶部。顶部表面的压力会影响 LED 的可靠性。应采取预防措施，以避免有过大的压力作用于在封装件上。因此，在选用吸嘴时，应适用于有机硅树脂的压力。

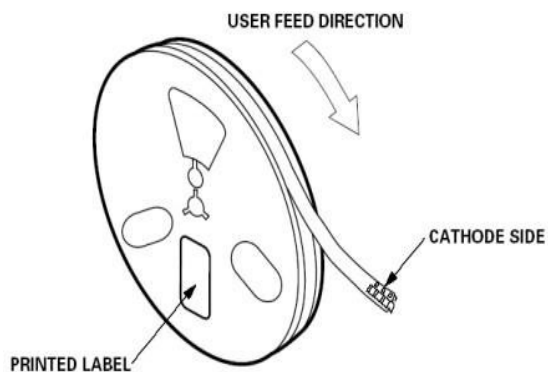
◆ Reliability (可靠性)

TEST ITEMS AND RESULTS (测试项目和结果)

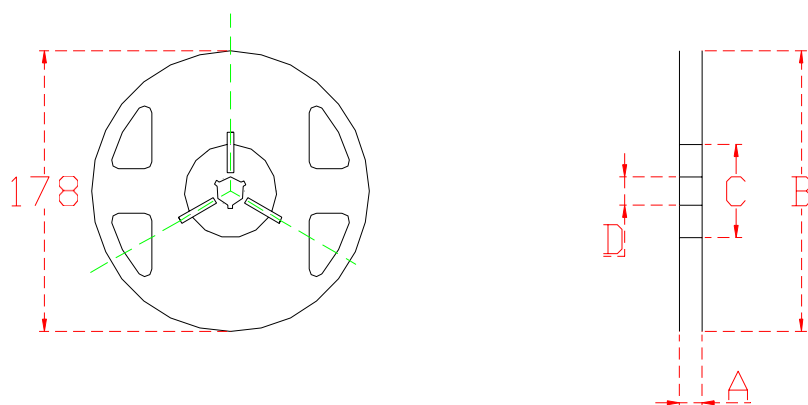
Test Item (测试项目)	Ref.Standard (参考标准)	Test Conditions (测试条件)	Note (备注)	Conclusion (结论)
Reflow Soldering (回流焊)	JESD22-B106	Tsld=260℃,10sec	3 times	0/22
Temperature Cycle (温度循环)	JESD22-A104	-20℃ 30min ↑↓15min 85℃ 30min	200 cycle	0/100
Thermal Shock (冷热冲击)	JESD22-A106	-40℃ 15min ↑↓15sec 85℃ 15min	200 cycle	0/100
High Temperature Storage (高温存储)	JESD22-A103	T _a =100℃	1000 hrs	0/100
Low Temperature Storage (低温存储)	JESD22-A119	T _a =-40℃	1000 hrs	0/100
Power temperature Cycling (点亮高低温循环)	JESD22-A105	On5min-40℃>15min ↑↓ ↑↓<15min Off5min100℃>15min	200 cycle	0/100
Life Test (老化测试)	JESD22-A108	T _a =25℃ I _f =300mA	1000 hrs	0/100
High Humidity Heat Life Test (高温高湿)	JESD22-A101	60℃ RH=90% I _f =300mA	1000 hrs	0/100

◆ Packaging Specifications (包装规格)

● Feeding Direction (进料方向)



● Dimensions of Reel (Unit: mm) (卷轴尺寸 (单位: 毫米))



A	$8.0 \pm 0.1\text{mm}$
B	$178 \pm 1\text{mm}$
C	$60 \pm 1\text{mm}$
D	$13.0 \pm 0.5\text{mm}$