

承 認 書

SPECIFICATION FOR APPROVAL

● 客戶名称	
● Customer	
● 客戶品號	
● Customer Part No.	
● 产品品號	HC-LDS-3535-G45-630C
● Brightek Part No.	
● 产品規格描述	2W 红光 3535 平面发光灯珠
● Specification	
● 製錶人	王清
● Prepared By	
● 審 核	李东平
● Checkedy	
● 客 戶 回 簽	
● Customer	
● 送样日期:	
● 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:

光宇集团

中高端光电元件定制企业 20多年封装经验 品质稳定可靠

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107栋2108号

ADD: Room 2108, No.1 building, Wanhui Garden, East Guanzhang Road, Zhangmutou, Dongguan, Guangdong, China

TEL: 0769-87797616 87182291 Fax: 0769-82337396 www.hc-led168.com

业务联系人：李顺阳 13925714318 (微信同号) 销售总监



ISO 14001
环境管理
体系认证

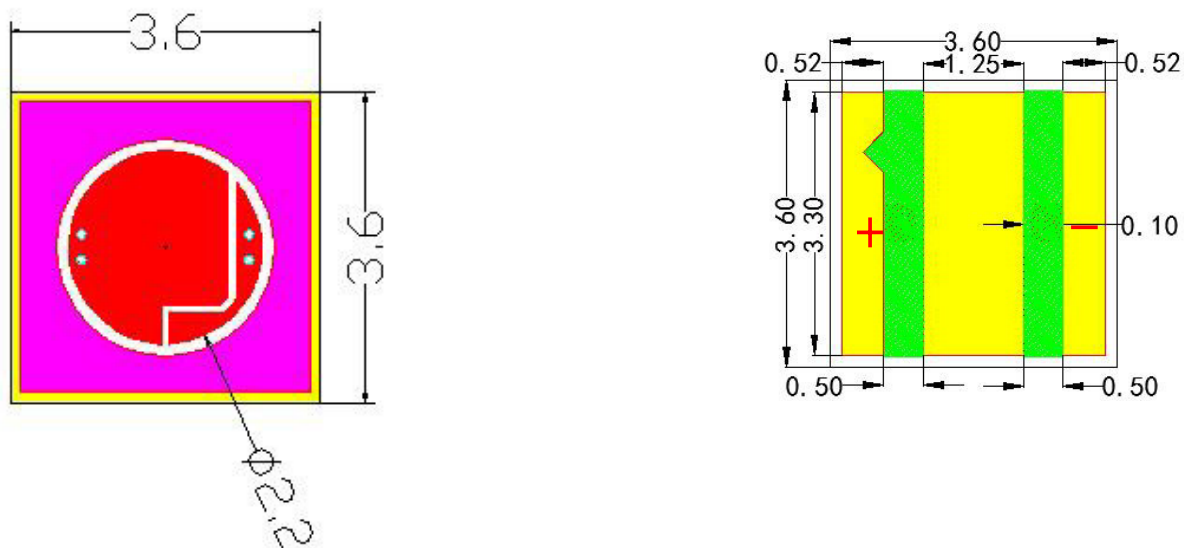


ISO 9001
环境管理
体系认证

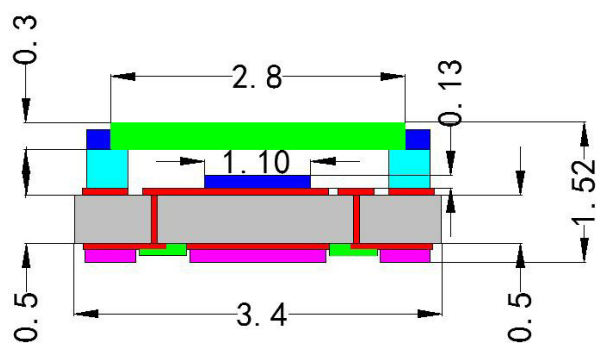


版本/版次	修改日期	修改内容
A01		

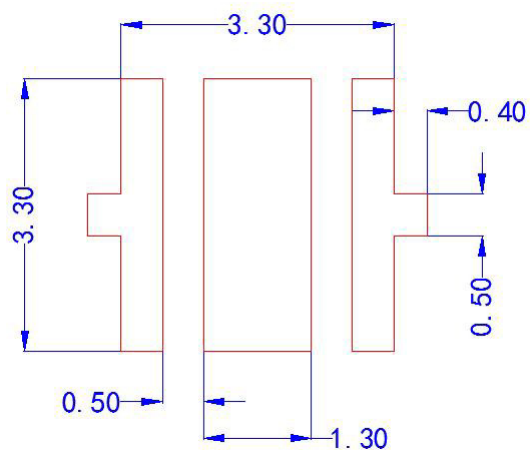
■ 尺寸规格图 /Dimensional drawing



备注：底部缺口焊盘为**正极**



(For reflow soldering 建议焊盘尺寸)

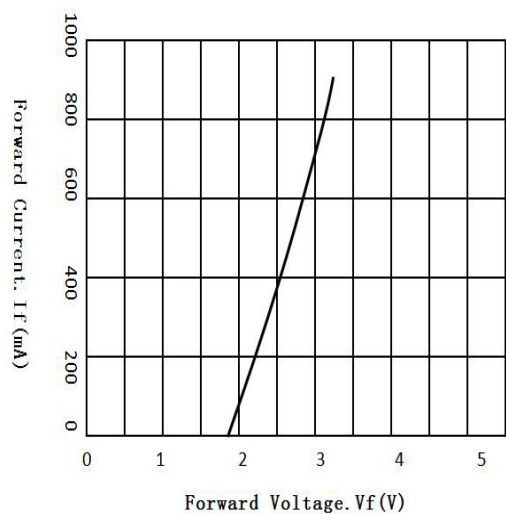


图中所有标注单位均为毫米

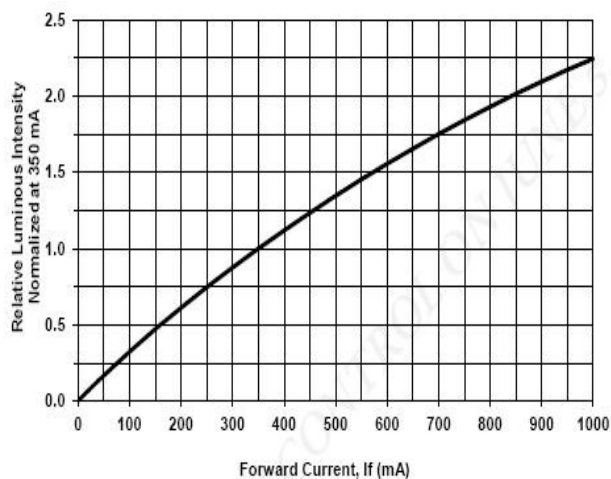
若无特别标注，图中尺寸公差为 $\pm 0.25\text{mm}$ / Tolerance is $\pm 0.25\text{mm}$ (0.10") unless otherwise noted

光电特性/Opto-Electrical Characteristics

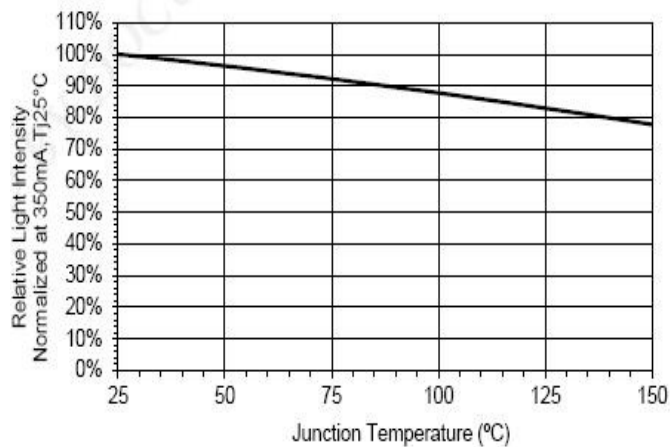
Forward Current vs. Forward Voltage
相对正向电流与正向电压



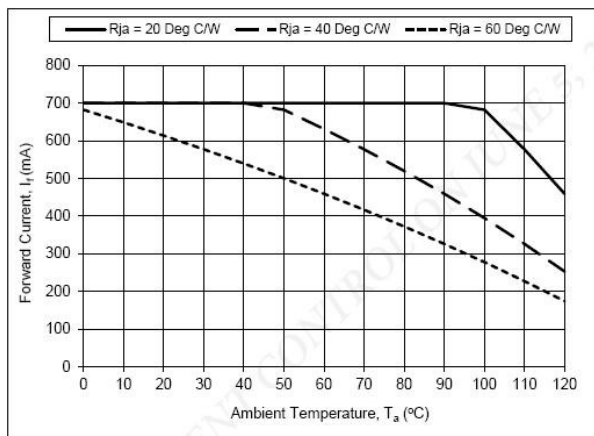
Relative luminous Intensity vs Forward Current
相对发光强度与正向电流



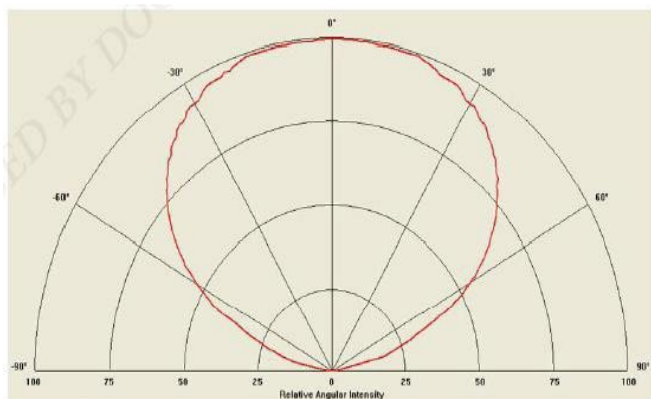
Relative Light output vs Junction Temperature
相对光输出与结温



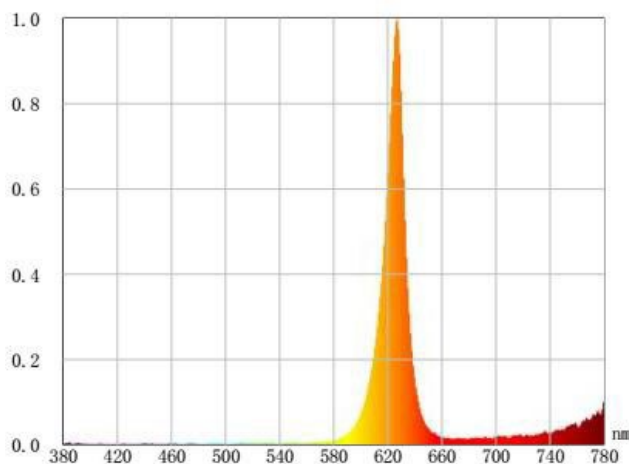
Current Derating Curve vs Ambient temperature
电流降额曲线与环境温度



Lighting Angle / 发光角度:



Spectrum Distribution / 相对光普能量百分比曲线图



■ 最大绝对额定值/Absolute maximum ratings

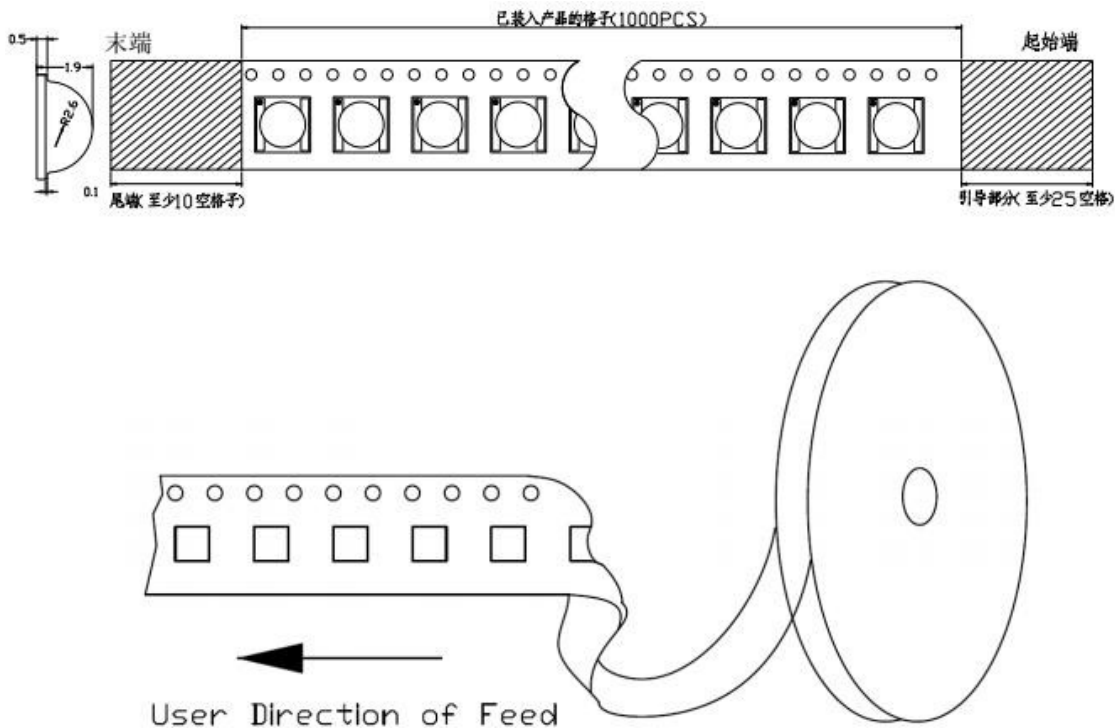
参数 Parameter	符号 Symbol	数值 Value	单位 Unit
正向电流 Forward Current	IFmax	1000	mA
反向电压 Reverse Voltage	Vr	5	V
结温 Junction Temperature	Tj	115	℃
工作温度 Operating Temperature	Topr	-20~+60	℃
储存温度 Storage Temperature	Tstg	-35~+85	℃
焊接温度 Soldering temperature	Tsol	240±5℃ (for4sec)	℃
功率消耗 Power Dissipation	Pd	2	W

■ 光电参数规格/Opto-Electrical Specification

参数 Parameter	符号 Symbol		最小值 Min	平均 值 Typ	最大值 Max	单 位 Unit	误 差 值 Tolerance	测试条件 Test Conditinos
正向电压 Forward Voltage	VF	500MA	2.0	2.2	2.4	V	± 0.1V	IF/正向电 流=500mA Test Temperat ure 测试温度 =25℃
		700MA	2.2	2.4	2.6			
波段/Band	λ		625	630	635	nm	±1nm	
光通量 Luminous Flux	Φ	500MA	50	80	---	LM	±5 LM	
		700MA	70	100				
发光角度 Lighting Angle	θ		---	120	---	deg	±5	
反向电流 Reverse Current	IR		---	---	5	μA	±1μA	
使用寿命 Life Time	L70		10000	---	---	Hou r	±500	

■ Packaging 包装

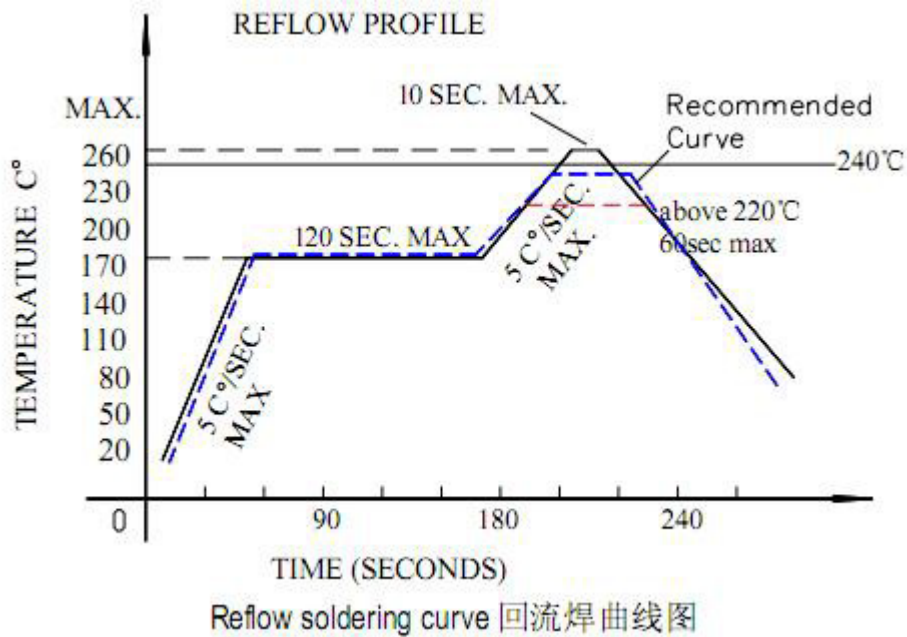
Tape Specifications (Units : mm) 载带规格 (单位 : mm)



NOTES 备注:

1. Empty component pockets are sealed with top cover tape;
预留载带空位也贴有上封带
2. The maximum number of missing lamps is two;
最多缺失的 LED 不能超过两颗
3. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications.
根据 ANSI/EIA RS-481 的规格,产品的负极指向卷带的导孔.

■ 一、 Requirements for application and reflow soldering 应用及回流焊要求：



■ (Product is highest resistant to 260°C reflow but suggested the highest temperature of 240°C within)

(产品最高可耐 260°C回流焊，但建议最高温度设为 240°C)

■ Notes for reflow soldering 回流焊注意事项：

1. No more than twice for reflow soldering.

注意回流焊不可超过两次。

2. Please choose the right nozzle(try to learn from the plastic products parts) to avoid the damage to products due to the pressure.

在吸嘴的选取上要选择吸嘴的大小和压力合适的吸嘴（尽量吸取产品的塑胶部分），以避免造成压力过大伤害产品。

3. Please put on the antistatic hand loop during the use. The worktable should be with antistatic finish. The equipments must be contacted with ground.

LED 为静电敏感产品，使用时请佩带防静电手环，工作台做好防静电处理，机台设备等保证接地。

■ Storage conditions 储存条件

Before opening the package 打开包装袋前：

1. The LEDs can be preserved for 1 year in condition of temperature no more than 30°C and humidity no more than 60%RH. Recommended for moisture-proof foil bag with desiccant packaging methods and stored in the constant temperature and humidity box. Can not reach the requirements under the environment of the guarantee as far as possible in six months after use.

在温度不超过 30°C及湿度不超过 60%RH 条件下，LED 可以保存一年，建议采用带干燥剂的防潮铝箔袋的包装方式，存放在恒温恒湿箱中。达不到要求的环境下，尽量保证在 6 个月内使用完毕。

After opening the package 打开包装后：

1. The SMD LEDs should be run out with 12hours in condition of temperature no more than 30℃ and humidity no more than 60%RH. The rest products should be pressurized in vacuum condition with desiccants. Stored for more than 7 days, next time also must be dehumidification, the dehumidification conditions is 75℃ with 12hours.

开封后，LED 在 $\leq 30^{\circ}\text{C}$ 、 $\leq 60\%\text{RH}$ 相对湿度的条件下，12 小时内完成贴片作业，未用完的产品重新真空密封，并放置在一个密封容器中，同时必须使用干燥剂。存储超过 7 天，下次使用时同样需要除湿操作，除湿条件为 75°C 12 小时。

2. The sealed storage products stock in the drying cabinet more for than one month, then must be dehumidified before used, and the dehumidified conditions is 75°C 24 hours.

密封的产品在干燥箱中存储超过 1 个月的，须经过深度除湿作业才能上线，除湿条件： 75°C 24 小时。

3. If the product does not vacuum sealed packaging, and in the air for more than 40hours, this product must be removed from the tape of reel and put into the steel plate to dehumidify with 150°C 2 hours, then could ensure the quality of the product after the soldering operation.

如果产品没有真空包装密封保存，且在空气中放置超过 40 小时，此产品必须从载带中拆出，放入钢盘进行 150°C 2 小时的除湿，之后进行回流焊作业才能保证产品品质。

■ drive control 驱动控制：

本产品需使用恒流源进行驱动，且输出电流符合规格书上的功率使用范围，如需使用恒压源或其他使用条件，请进行使用效果风险评估。

Drive this product at constant current. Output current range specifications should be according to

the operational and other conditions, as mentioned in data sheet. Before using a constant voltage source or altered specifications, other than recommended, please consider risk factors.

■ other 其他：

本产品不可在以下条件下使用，如果产品在以下条件下使用，评估其使用效果和风险是有必要的：

---直接或间接的打湿或受潮，比如淋雨等；

---被海水损害或侵蚀；

---被暴露于腐蚀性气体(如 Cl_2 , H_2S 、 NH_3 、 SO_x 、 NO_x 等)；

---被暴露于粉尘、液体或油；

Product is not suitable to use in following conditions;

---Direct or indirect wet / damp conditions, such as rain, etc;

---in contact with sea water and erosive materials;

---Exposed to corrosive gases (e.g., Cl_2 , H_2S , NH_3 , SO_x , NO_x , etc.);

---Exposed to dust, liquids or oils;