HONGLITRONIC
鸿利光电

Under Development	
Mass production	●

RoHS

Specification

规 格 书

Client Name：_____

客户名称：

Client P/N：_____

客户品号：

Product P/N：HL-C3535K5Y3EA-ZW

产品型号：

Sending Date: _____

送样日期：

Client approval 客户审核		Hongli ZhiHui approval 鸿利智汇审核		
Approval 核准	Audit 确认	Approval 核准	Audit 确认	Confirmation 制作
				Daivid Zhou
☐ Qualified 接受	☐ Disqualified 不接受	DATE: 日期：		

鸿利智汇集团股份有限公司 工程技术中心

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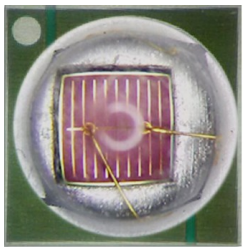
注:1. 此规格书以中英文方式书写,若有冲突以中文版本为准文本.
2. 此规格书的最终解释权归广州鸿利智汇集团股份有限公司
3. 此规格书的有效期限为两年,自盖章或签字之日起计算,期满时双方可以续签协议,但应采用书面形式

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



Features 特点

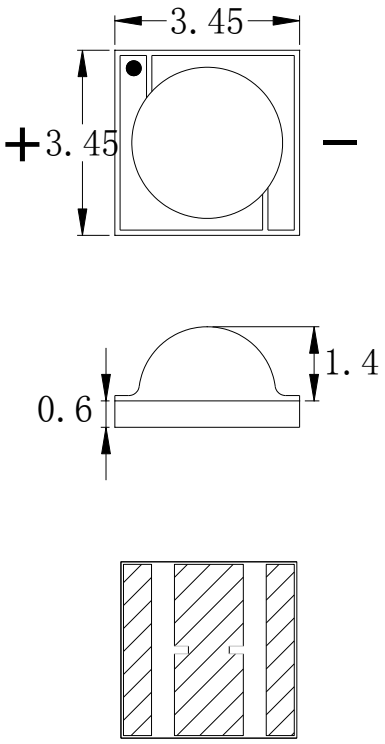
- Dimension 尺寸：3.45mm×3.45mm× 2.0mm
- Long operating life 寿命长
- High efficiency 高效率
- Lambertian radiation pattern朗伯光照模式
- Low voltage DC operated低电压直流作业
- Cool beam, safe to the touch 冷光源，触摸安全

Applications应用

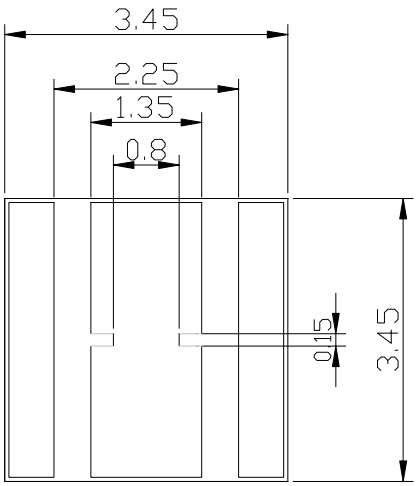
Small size, Flexible design 体积小，设计灵活

…

Package Dimensions封装尺寸



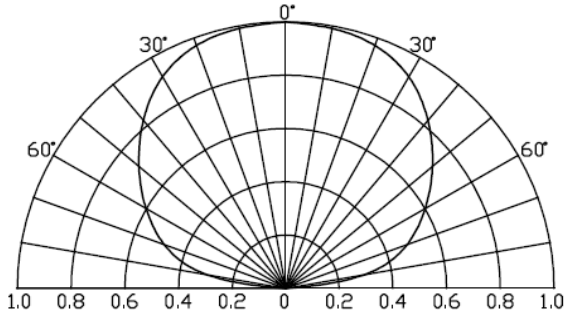
Recommended Soldering推荐焊接

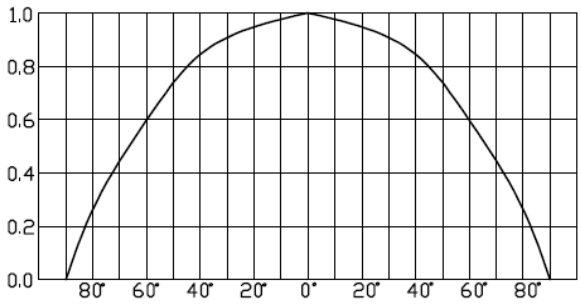


Notes注意:

1. All dimension units are millimeters.所有尺寸单位均为毫米.
2. All dimension tolerance is ±0.2mm unless otherwise noted.所有尺寸误差是±0. 2毫米除非另有说明。

Radiation Pattern辐射模式





Typical Optical/ Electrical Characteristics @T_a=25℃ 典型的光学/电气特性在 Ta=25°C

Symbol 符号	Item名称	Min. 最低	Typ. 典型	Max. 最高	Units 单位	Test Conditions 测试条件
ΦV	Luminous Flux光通量	90	110	130	lm	IF=700mA
Φe	Radiation Power辐射功率	—	230	—	mW	IF=700mA
VF	Forward Voltage [1]正向电压	2.2	—	3.0	V	IF=700mA
λ_d	Wave Length主波长	590	—	600	nm	IF=700mA
$2\theta_{1/2}$	50% power angle发光角度	—	130	—	deg	IF=700mA
IR	Reverse Current反向电流	—	—	30	uA	VR = 5V

Notes注:

1.Tolerance of measurement of forward voltage±0.1V、peak Wavelength±2.0nm、luminous flux±5%

测量正向电压误差为±0.1、波长误差为2.0nm、光通量误差为±5%。

Absolute Maximum Ratings 绝对最大额定值在TA=25°C

Item名称	Symbol 符号	Absolute Maximum Rating 绝对最大额定值	Units单位
Power dissipation[1]功率	Pd	3	W
DC Forward Current[1]正向电流	I_F	700	mA
Peak Forward Current峰值电流	I_{Fp}	1000	mA
Reverse Voltage[1]反向电压	V_R	5	V
Operating Temperature 工作温度范围	Topr	-35°C To +100°C	
Storage Temperature 储存温度范围	Tstg	-40°C To +100°C	

Note:

1.1/10 Duty Cycle,0.1ms Pulse Width.1 / 10占空比，0.1ms脉冲宽度。

2.The temperature of Aluminum PCB do not exceed 55℃.基板温度不超过55℃。

Product bins 产品分级 @IF=700mA Ta=25℃

(1) Forward Voltage bins 电压分级

Min VF(V)	Max VF(V)
2.2	2.4
2.4	2.6
2.6	2.8
2.8	3.0

(2) Brightness bins 亮度分级

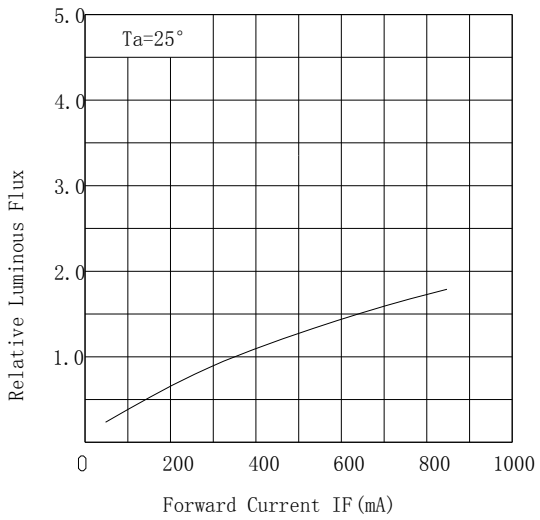
IF=700mA		IF=350mA	
Min Φv(lm)	Max Φv(lm)	Min Φv(lm)	Max Φv(lm)
90	110	65	75
110	130	75	85

(3) Wavelength bins 波长分级

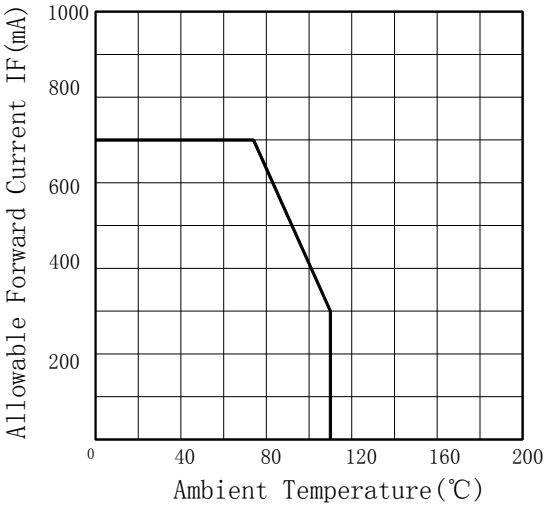
Min Wp(nm)	Max Wp(nm)
590	592.5
592.5	595
595	597.5
597.5	600

Typical Optical/Electrical Characteristics Curves典型光学/电性特征曲线 (T_a=25℃ Unless Otherwise Noted)（T_a=25℃ 除非另有注释）

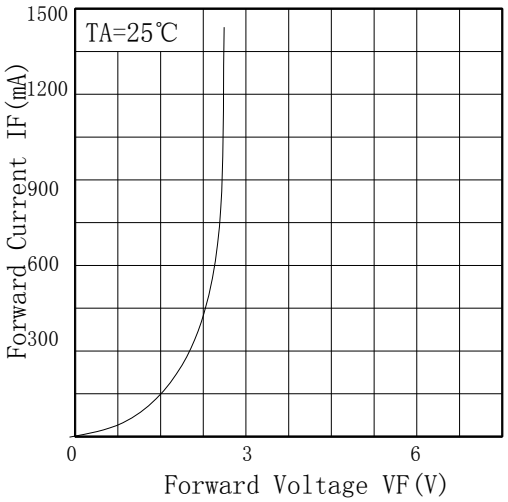
Relative Luminous Flux - IF



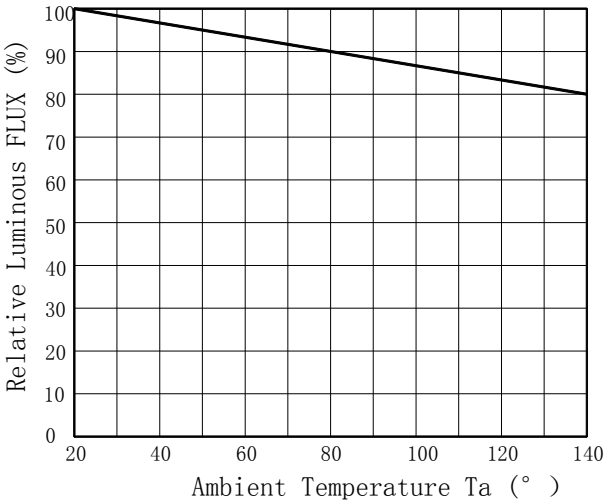
Allowable Forward Current - Ta

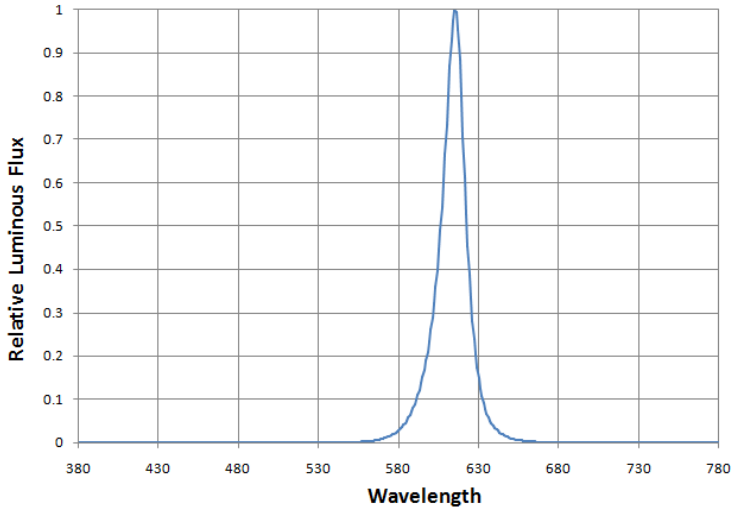


IF - VF

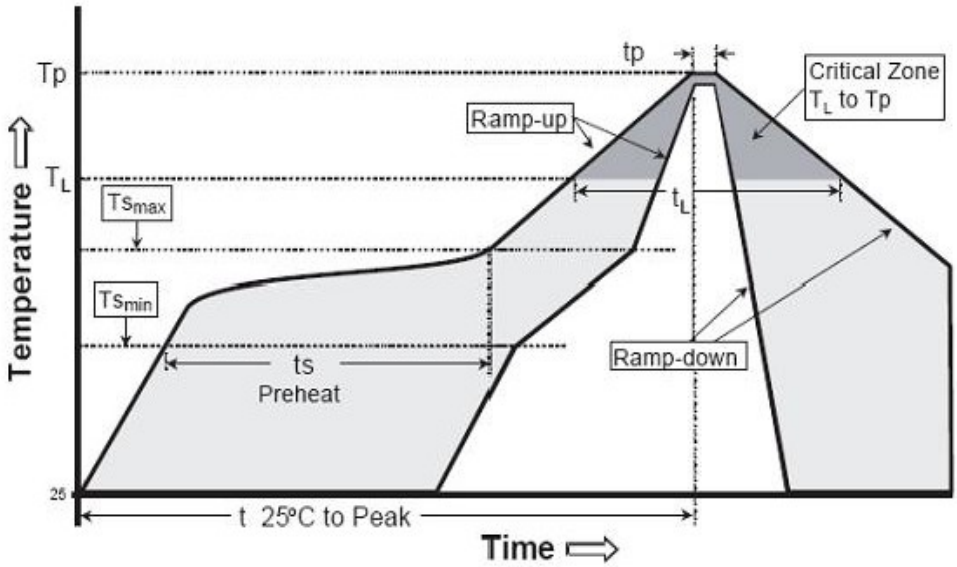


Relative Luminous Flux - Ta





Soldering焊接：



Reflow soldering回流焊

Caution注意:

1.wave peak and soak-stannum soldering etc.is not suitable for this products.
波峰焊、浸锡焊接不适合这个产品

2.reflow solding should not be done more than one time
此产品只能过一次回流焊

3.The peak reflow temperature is 260 ±10℃, not more than 40 seconds
回流焊峰值温度为260 ±10℃， 不能超过40秒

4.Repairing should not be done after the LEDs have been soldered. When repairing is un avoidable, suitable tools have to be used.
焊接后,尽量不要对LED进行修复,如要修复,请使用正确的工具.

5.when solding,do not put stress on the LEDs during heating.
焊接时,不要挤压灯头.

6.After soldering, do not warp the LED.do not stack PCBS or assemblies cantaing K Series LEDS so that anything rests on the LED lens.
焊接后,不要将LED进行堆压,不要将焊好LED的PCB板直接堆积,以免使灯头被挤压.

Test测试

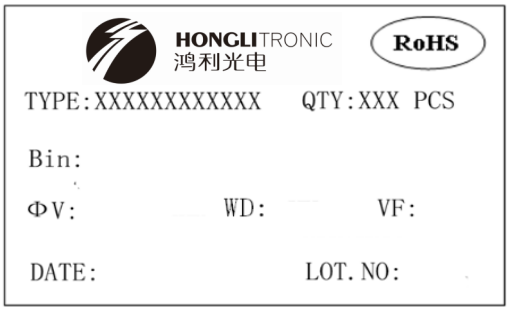
1.Drive IFP Conditions：Pulse Width≤10msec duty≤1/10.

驱动IFP的条件：脉冲宽度≤10毫秒 占空比≤1/10.

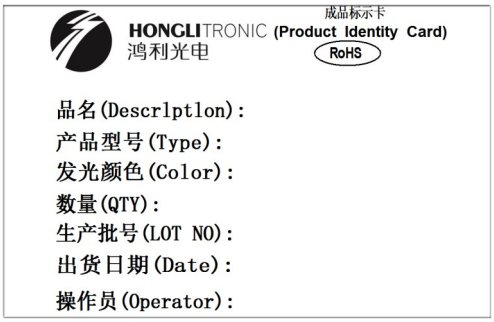
2.All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be li ghted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

所有高功率的发光LED产品安装在铝基板上，可直接点亮，但我们不建议在没有一个适当的散热设备时,照明高功率LED点亮超过5秒.

Label 标签



Label on ESD shielding 静电袋上标签



Label on box 外箱标签

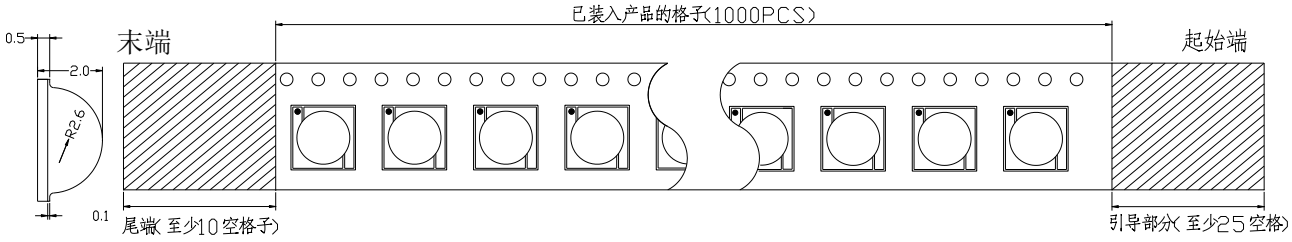
ΦV: Luminous Flux rank 光通量档次范围

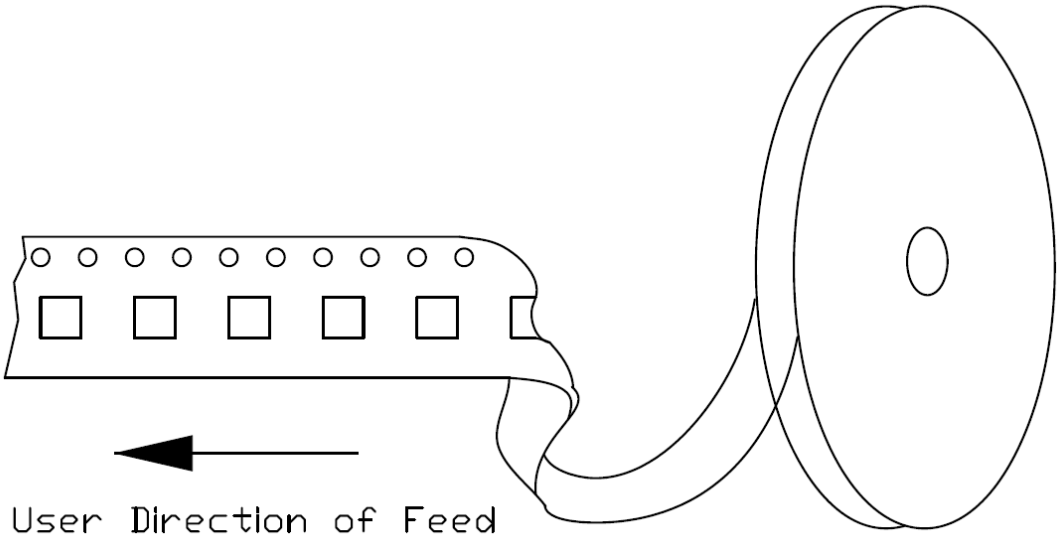
VF: Forward voltage rank 正向电压档次范围

WD: Wave Length 波长

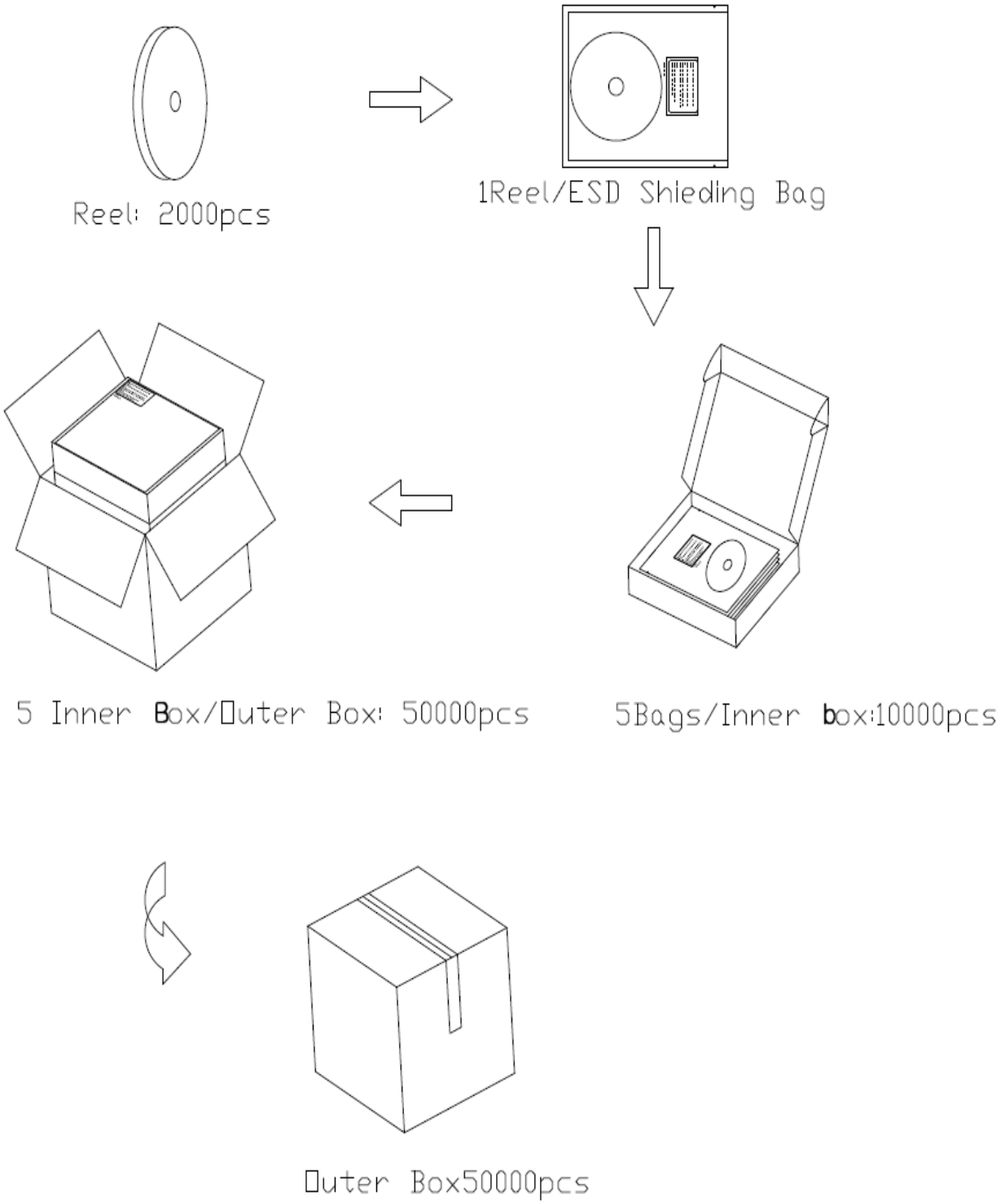
LOT.NO:Lot Number 批号

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





Packing包装


Reel: 2000pcs
1Reel/ESD Shieding Bag
5 Inner Box/Outer Box: 50000pcs
5Bags/Inner box:10000pcs
Outer Box50000pcs

Use the matters needing attention(使用注意事项)

一、储存(storage)：

为避免受潮的影响，我司建议产品在未开包装前储存条件为 5-30°C，相对湿度小于 60%；已开包装的 LED 光源请在 24H 内使用安装完毕，如未用完之产品，请进行除湿并抽真空后密封保存。开封超过一周或湿度卡发生变化时，请务必进行除湿，除湿条件：60°C±5°C，12H；

产品密封保存有效使用期为一年。

To avoid moisture, we recommend storage conditions for the unopened LED +5 ~ +30 °C, relative humidity <60%. LED should be used within 24 Hrs. of opening the package. Please make sure to dehumidify and vacuum pack the remaining/ unused LED. Dehumidifying condition: +60 ° C ± 5 ° C, 12 Hrs. Effective age for the sealed led is one year.

二、组装注意事项(the assembly notes)：

焊接条件：此产品必须使用回流焊接的作业方式，回流曲线最高温度不可超过 260°C。作业或存放过程中不可有 1000g 以上的外力或尖锐物体作用于透镜表面（如压力，摩擦等外力以及钳子镊子等工具），以免造成元件损伤；

如果超出此使用条件，鸿利光电将不能保证产品的稳定性，如需使用超出的操作条件，请务必进行风险评。

Soldering Conditions：This product must be used reflow soldering practices, the maximum temperature of reflow should not exceed 260°C . Please make sure when soldering, there is no external force on the soldering surface (such as pressure, friction or sharp metal nails, etc.), to avoid gold wire deformation or damage and other abnormalities.

If beyond recommended conditions, we cannot guarantee the LED stability, please do the risk assessment first.

三、防静电措施(anti-Static Measures)：

请采取足够的措施来防止静电产生，比如带静电环或防静电手指套等；每个制造工程关于产品（工厂、设备、机器、载波机和运输单位）应当连接地面，避免产品电气带电。

Please take adequate measures to prevent electrostatic generation, such as wearing electrostatic ring or anti-static fingerstall etc; any relative products like plant equipment, machinery, carrier and transportation units shall be connected to discharging unit/ ground. After assembly, please make sure to discharge Static Electricity with proper ESD equipment.

四、温度控制(temperature Control)：

保证散热前提条件为：TS点（负极焊盘）为75/85摄氏度以下，在此温度以下，散热符合产品寿命要求；为确保在组装时降低接触热阻，请注意在组装过程中，散热片采用良好品质的导热膏涂布均匀且分布面积合理，不可出现太少或高低不平等现象。散热介质需保证电介质耐压测试至少通过500V。

Recommended temperature conditions for enhanced product life: TS (Cathode Point) is <75/85°C . During assembly, please ensure that a good quality thermal paste is applied and distributed evenly over the surface. While using thermal pad (Heat Sink), make sure LED is firmly tightened and there is no gap between surfaces. The need to ensure the cooling medium dielectric withstand test at least through 500V.

五、驱动控制(drive control)：

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.

六、其他(other)：

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 Cl2,H2S、NH3、SOx、NOx等）；

---被暴露于粉尘、液体或油；

---符合使用手册情况下，产品质保期为24个月，有保质协议的则以保质协议为准；

---产品生命周期后进行回收处理。

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;

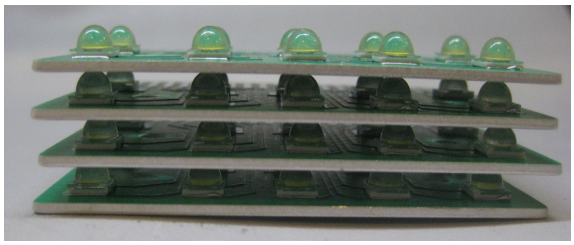
—-Exposed to corrosive gases (e.g., Cl2, H2S, NH3, SOx, NOx, etc.);

—-Exposed to dust, liquids or oils;

—-In accordance with the user manual, the product shelf lift is 24 months, If there is a warranty agreement, the warranty agreement shall prevail;

—-After the product life cycle for recycling.

OK



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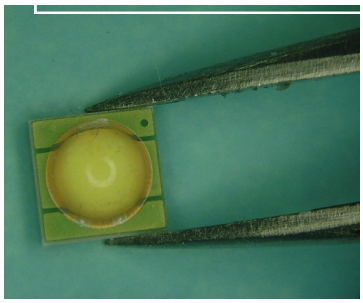
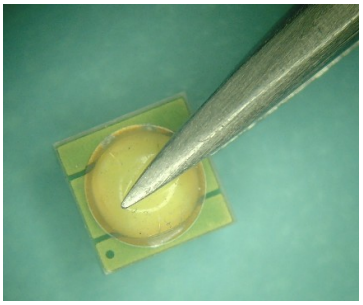


OK



Under Development	
Mass production	●

修订次数	修订人	修订内容	修订日期	版次
1	Daivid Zhou	新建文件	2017.10.22	A/0
2	梁依雯	修改主波长范围为590-600nm	2020.01.10	A/1
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