承 認 書

SPECIFICATION FOR APPROVAL

● 客戶名称 ● Customer	
● 客戶品號 ● Customer Part No.	
● 产品品號 ● Brightek Part No.	**HC-4020TG5C-BL**
● 产品規格描述 ● Specification	4020 侧发翠绿光
● 製錶人 ● Prepared By	王清
● 審 核 ● Checkedy	李东平
● 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:_____

广东光宇集团
广东光宇实业有限公司
工厂地址：东莞市寮步镇松湖智谷 A2 栋 3 楼
弘呈光电（香 港）有限公司
Hong Cheng Photoelectric (HK) Limited
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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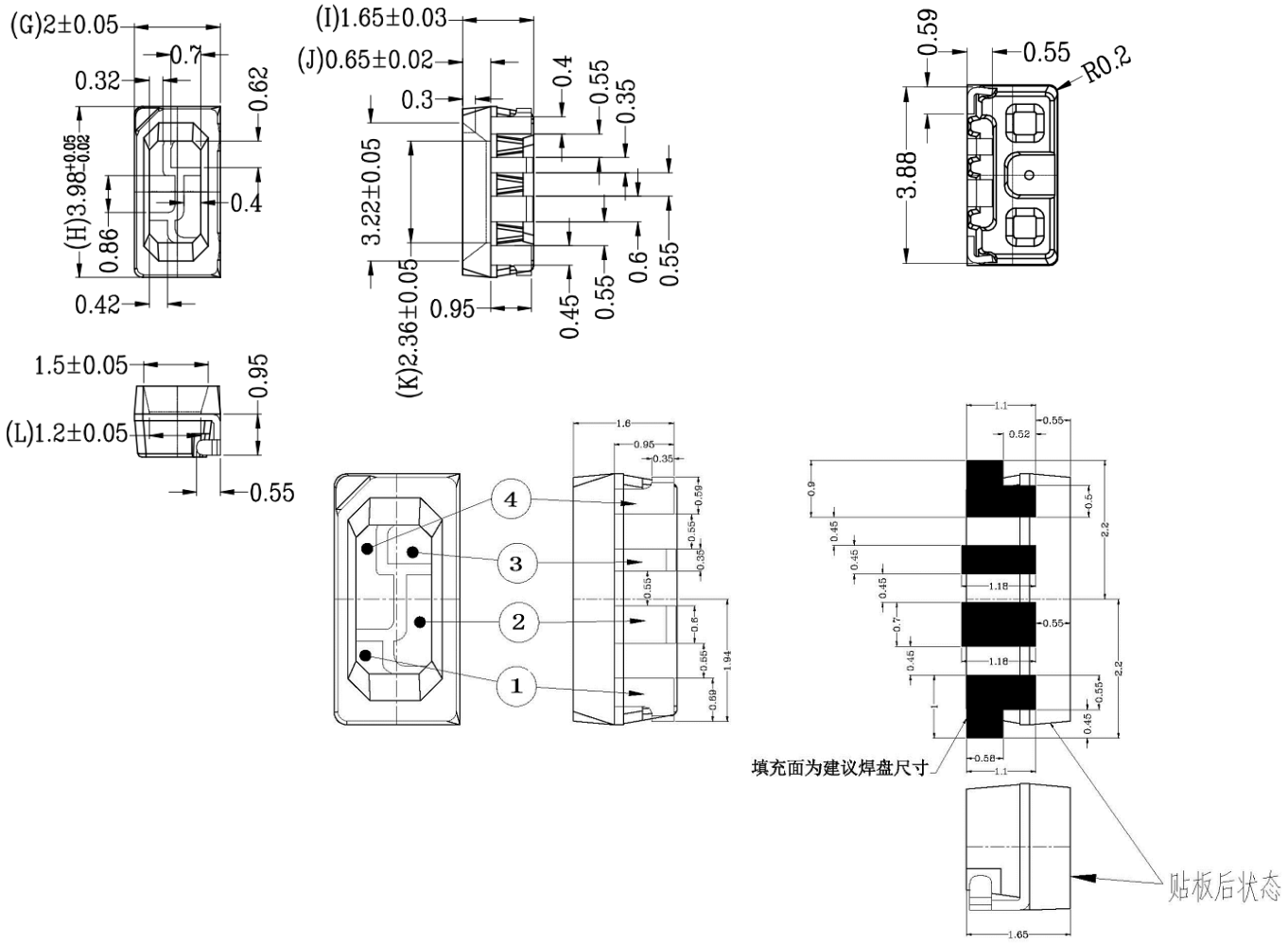
版本/版次	修改日期	修改内容
A01		

1. overview

* Low power consumption
* Low power
* General equipment on the PCB board or panel
* with ICSupporting the use/Low current requirement

2. Product appearance size figure

（unit：mm）



Note：

1：脚位说明: 1 空置 2 正极 3 空置 4 负极

2：All dimensions are in millimeters (inches).

3：Tolerance is ±0.25mm (.010”) unless otherwise noted.

4: Specifications are subject to change without notices.

5：This specification is for reference only for one year

3. parameter

3.1 The limit parameter（room temperature 25℃）

parameter	The numerical	Unit
Dissipation power	102	mW
Pulse current （1/10 work loops 0.1 millisecond pulse width ）	100	mA
Working current （IF）	30	mA
Reverse voltage （VR）	5	V
Working temperature range	-40℃ ~ +80℃	
Storage temperature range	-40℃ ~ +80℃	
Soldering temperature	245℃ for 5 Seconds	

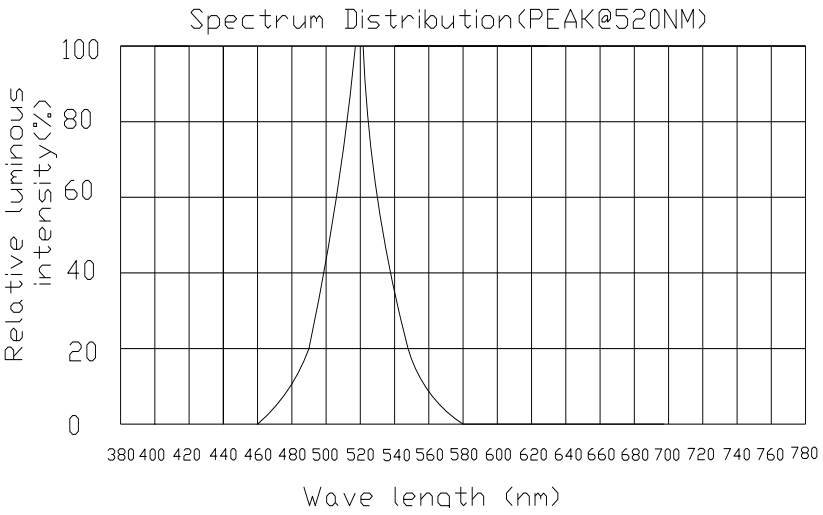
Photoelectric parameters At room temperature 25℃

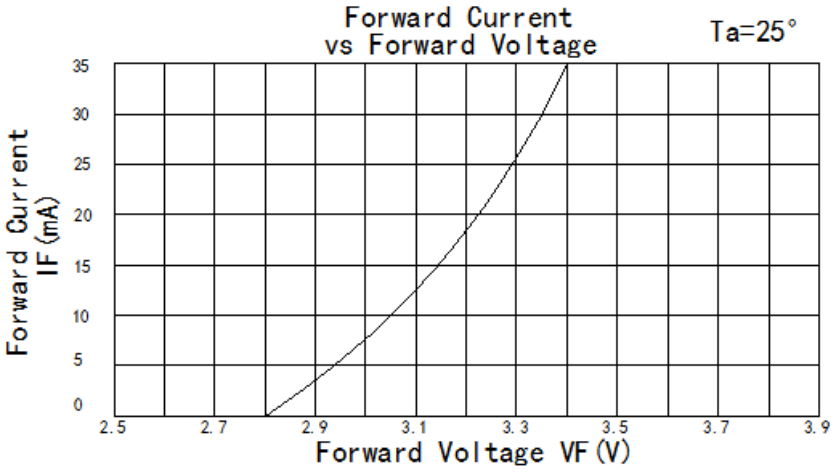
Parameter	minimum value	median	maximum	Unit	Test Condition
Luminous intensity	1000	-----	2000	Mcd	If=20mA
Light Angle(2 θ 1/2)	-----	120	-----	deg	If=20mA
The wavelength(λ)	520	-----	525	nm	If=20mA
electric voltage	2.8	-----	3.4	V	If=20mA
Reverse current		-----	5	μA	Vr=5V

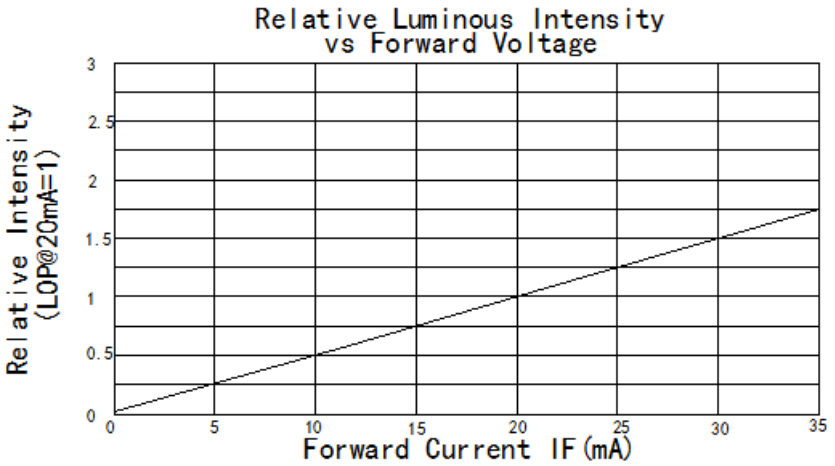
Selection Guide：

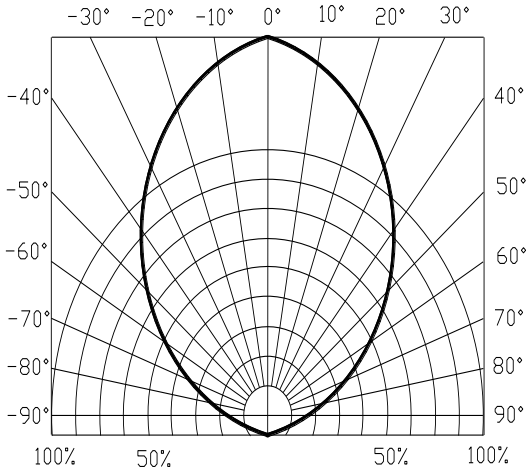
Colloid color	**Chip**		
Water clear	Material	**Emitting light colors**	λp(nm)
	InGaN/GaN	Green	520

4、Under the condition of 25 ℃ electrical diagram:









5. Not dry glue label

P/N: Product number

VF: Forward voltage

BIN: points light

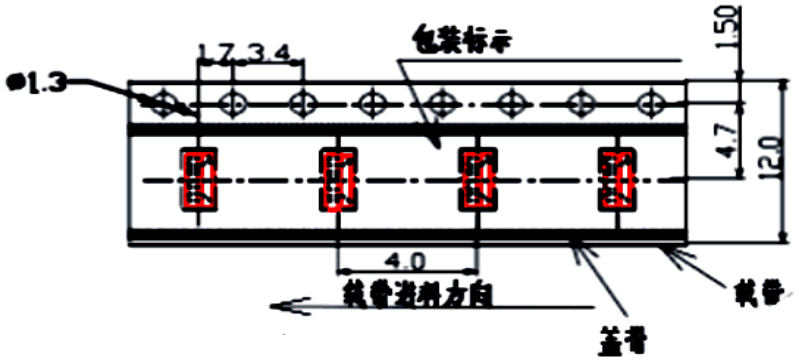
IV: Luminous intensity

WL: Color/wavelength

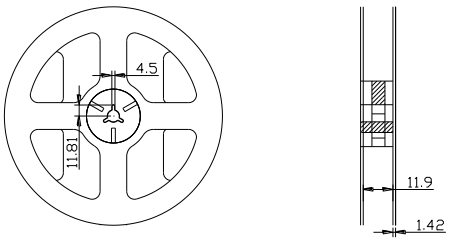
QTY: number

QC: Production order

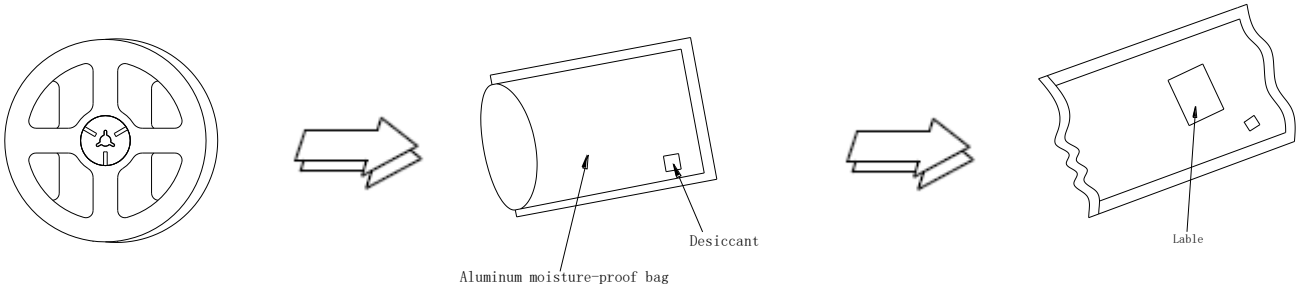
6. Tape size (unit:mm)



6.1 Reel Dimensions



6.2 Moisture Resistant Packaging



Note: unless mentioned, tolerance of + / - 0.1 mm。

7. SMD products take precautions

7.1 Graph one：Hands material taking

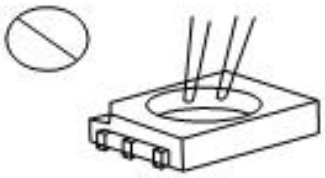
a. Hand have sweat，Sweat exist on the surface of a silicon rubber optical pollution，Affect luminescence。

b. Fill the glue for silicon rubber，Silica gel is relatively soft，Hand yank may lead to break、Crushed wafer caused death lamp。

7.2 Graph second：tweezers Surface take material

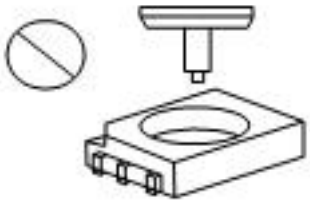
a. Product packaging glue for silicon rubber, Silica gel is relatively soft, Squash with the tweezers will lead to disconnection, crushed chip causing death lamp products。

b. Tweezers will scratch the product surface, Affect the light Angle。



7.3Figure 3：SMDmaterial taking

When the suction nozzle diameter is less than the product will lead to press the silicon rubber suction nozzle to cause gold thread breakage and chip extrusion, caused death light etc。



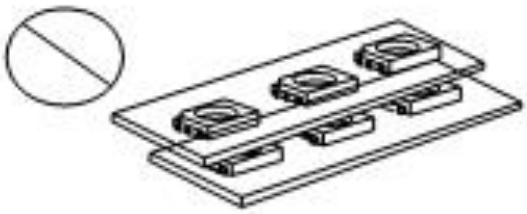
7.4Figure 4: blanking

Products fall to the ground, can lead to foot deformation, cause the weld position is different。

7.5Figure 5: welding plate after placement

a. After welding plate, the welded directly to the board after the overlap, will damage the surface of product, can affect the light Angle scratch the surface。

b. After welding plate, welding plate and overlapping products have extrusion, extrusion will cause the chip and the damage and fracture of gold wire。



8.SMD Dehumidification and baking products

8.1 The experiment shows that

After test, found SMD series conforms to the IPC/JEDECJ - STD - 020 - c plastic integrated circuits (IC) SMD damp reflux sensitivity classification standards。

8.2 Reflow soldering SMD before use

If after open the sealed container bags, but before soldering SMD exposed to damp environment, is in high temperature during the welding process of SMD damage may occur, such as death lamp。

8.3 Storage instructions

Stored in a temperature below 30 ℃, relative humidity is less than 30% in the environment of SMD don't need to bake desiccant before reflow soldering。

8.4 Baking needed to meet the conditions

There is no need to bake all SMD dehumidification, only not listed in the following store good SMD baking desiccant must be conducted。

a. Already from the original vacuum packaging of SMD。

b. Has not been reflow soldering SMD (after reflow soldering is no need to bake dehumidification)。

8.5 Baking method are as follows

a. From open vacuum packaging or SMD SMD reel。

b. SMD can be baked on the original reel。

c. Will the reel or SMD SMD under 60 -70℃ baking 24hours。

d. Please note that don't above 60 ℃ temperature baking SMD reel。

9. Storage and cleaning products

1）Without open the original package, it is recommended that the environment for the storage, temperature: 5 ℃ to 30 ℃, humidity: less than 85%。

2）After open the original packing, recommended storage condition is: temperature: 5 ℃ to 30 ℃, humidity: less than 60%。

3）SMD is moisture sensitive device, to avoid the original moisture absorption, suggested after open the packing, store it in a dry agent an airtight container, or stored in nitrogen moistureproof enclosure。

4）After open the packing, the original should be used up within 12 hours。

5）If the dry agent failure or components exposed in the air more than 12 hours, dehumidifying treatment should be done. Condition: 60-70 ℃, 12 hours。

6）Please note that：

a. In order to prevent damage to the SMD, please do not use chemical liquid cleaning SMD without detailed description。

b. Do not use organic solvents such as acetone, water, etc.) that day clean or brush try SMD colloid, because it may damage the SMD。

c. Don't rinse the SMD, water less volatile and easily make the bracket pin to oxidize. If water cleaning SMD, must be baked desiccant before reflow soldering。

10.ESD protective

SMD is a semiconductor device, the static sensitive, especially for white, green, blue, purple, SMD to make efforts to prevent electrostatic generation and eliminate static electricity。

10.1 The generation of static electricity

a. Friction: in daily life, any two objects of different material contact after the separation, can produce static, and the one of the most common method of generation of static electricity, is the electrification. The insulation material, the better, the easier the electrification. In addition, any two objects of different material contact again after separation, also can produce static electricity。

b. Induction: in view of the conductive material, because electrons can flow freely in its surface, such as to be put in the electric field, due to the same, opposites attract, the positive and negative ions will move, can produce electric charge on the surface。

c. Conduction: in view of the conductive material, because electrons can flow freely in surface, such as contact with a charged object, the charge transfer will occur。

10.2 The harm of SMD：

a. For the moment's electric field or electric current produced by the heat, make the SMD local injury。

bBecause of destruction of the electric field or current SMD insulation layer, the device will not work (destroyed) characterized by death lamp。

10.3 Electrostatic protection and measures to eliminate

For the entire process (production, testing, packaging, etc.) all the employees to direct contact with SMD measures to prevent and eliminate static electricity, mainly include:

a. Laying anti-static workshop floor and well grounded。

b. Workbench for esd workstation, production machines grounding is good。

c. Operators wear anti-static clothing, anti-static hand ring ring, gloves, or foot。

d. Application of ion fan, the welding electric grounding measures。

e. Packing with antistatic materials。