PRODUCT SPECIFICATION

产 品 规 格 书

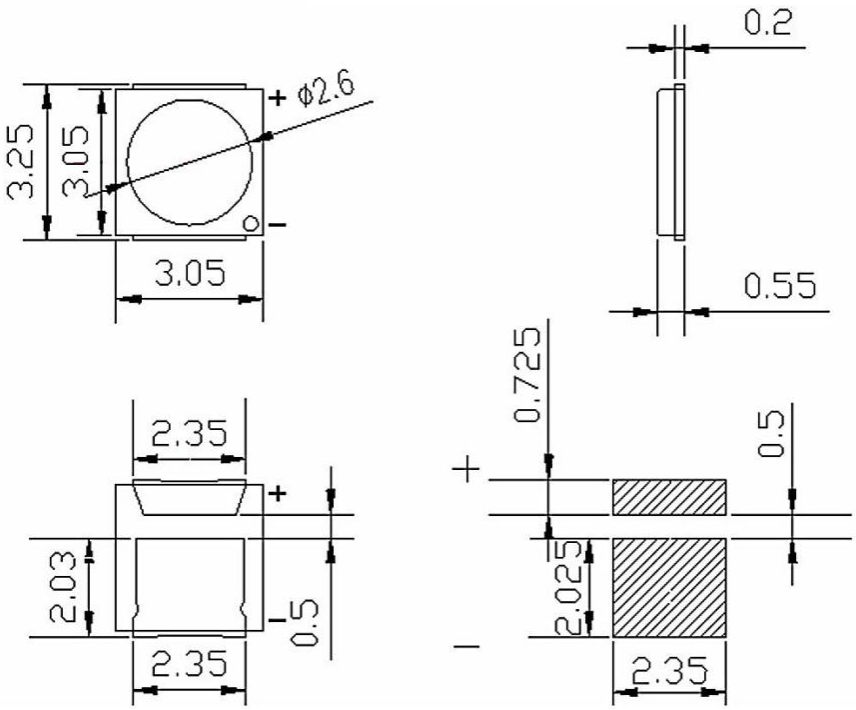
CLIENT 客 户	
PART NO 产品型号	3030平面白色1W-3V
SPEC NO 规格书编号	ZH-04630
DATE 日 期	2020/4/9

CLIENT APPROVAL 客户审核		ZH R&D DEPARTMENT 中海研发部		
APPROVAL 核 准	CHECKED 审 核	APPROVAL 核 准	CHECKED 审 核	CONFIRMATION 制 定
□ QUALIFIED 接受□ DISQUALIFIED 不接受		DATE 日期:		

1.Product description 产品描述

Features 特点	Applications 用途
▶ Industry standard footprint 采用行业标准尺寸 ▶ For automatic placement equipments 使用自动焊接装置 ▶ For infrared and vapor phase reflow Solder processes可以采用红外线和回流焊接 ▶ Long life solid state reliability 使用寿命长，可靠性强 ▶ Extremely wide viewing angle 宽的发光角度 ▶ Available on tape and reel 适用于载带及卷轴	▶ Backlighting for LCDsLCD 背光源 ▶ Push-button/Keypad backlinghting 触摸屏及开光背光源 ▶ Indicators 指示灯 ▶ Automobile front panel indicating 自动机台控制板指示 ▶ Indoor and outdoor lighting 室内、室外照明 ▶ General use 一般应用

2.Package Dimensions 外观尺寸



Notes 备注:

1.All dimensions are in millimeters. 以上尺寸单位均为 mm。

2.Tolerance is ±0.10mm unless otherwise noted. 未特别标注公差的尺寸公差均为±0.10mm。

3.Electrical/Optical Characteristics(At TA =25℃) 光电参数

Parameter 参数	Symbol 符号	Conditions 测试条件	Min 最小值	Typ 典型值	Max 最大值	Units 单位
Luminous Flux 光通量	φ	IF=300ma	100	120	-	LM
Color Temperature 色温	TC	IF=300ma	6000	7000	8000	K
Foverse Current 顺向电压	VF	IF=300ma	2.8	3.2	3.6	V
Reverse Current 反向漏电流	IR	VR=5V	-	-	5	μA
Viewing Angle 发光角度	2⊙1/2	IF=300ma	-	120°	-	Deg
Rendering Index 显色指数	CRI	IF=300ma	-	70	-	Ra

4.Absolute Maximum Ratings (At TA=25℃) 极限参数

Parameter 参数	Symbol 符号	Ratings 数值	Units 单位
Continuous orward Current 顺向电流	IF	300	mA
Peak Forward Current[1] 顺向脉冲电流	IF(Peak)	300	mA
Operating Temperature Range 工作温度	TOPR	-30℃To+80℃	
Storage Temperature Range 贮存温度	TSTG	-40℃To+85℃	
Notes 备注：1/10 Duty Cycle 0.1ms Pulse Width 脉宽 0.1ms，点空比 1/10			

5. Bin Standard 分光规格

Luminous Flux Combination (Flux at 300ma) 光通量范围

Φ Rank	1	2	3
Luminous flux Of referring	100-110LM	110-120LM	120-130LM

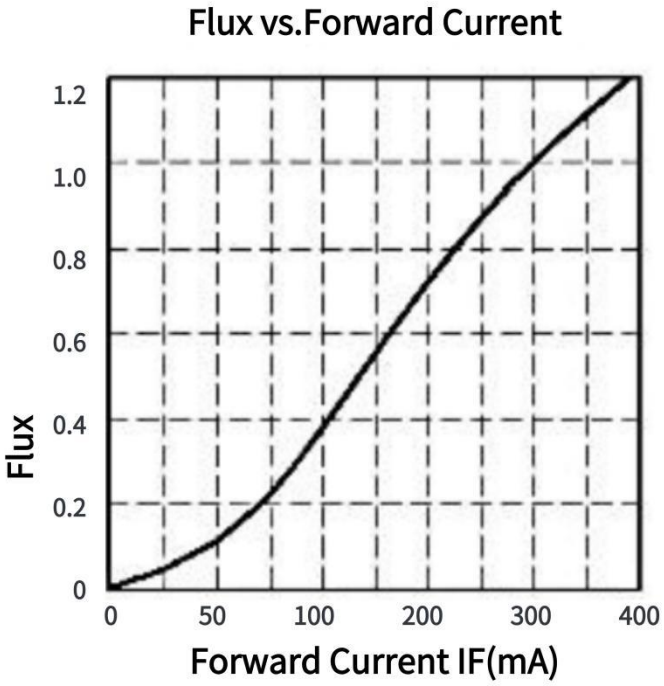
Notes:Tolerance for each Luminous Intensity.Bin is ±10%.
每 BIN 光通量公差为±10%

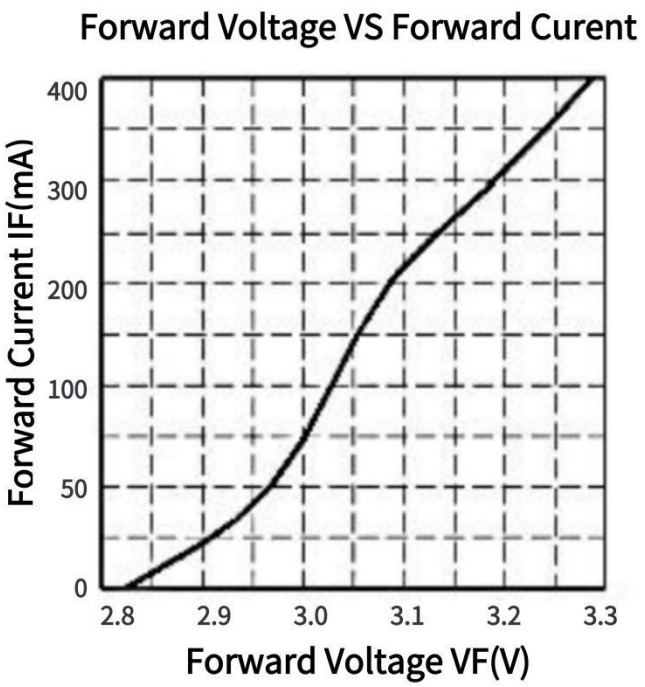
Forward Voltage Combination(VF at 300ma) 电压范围

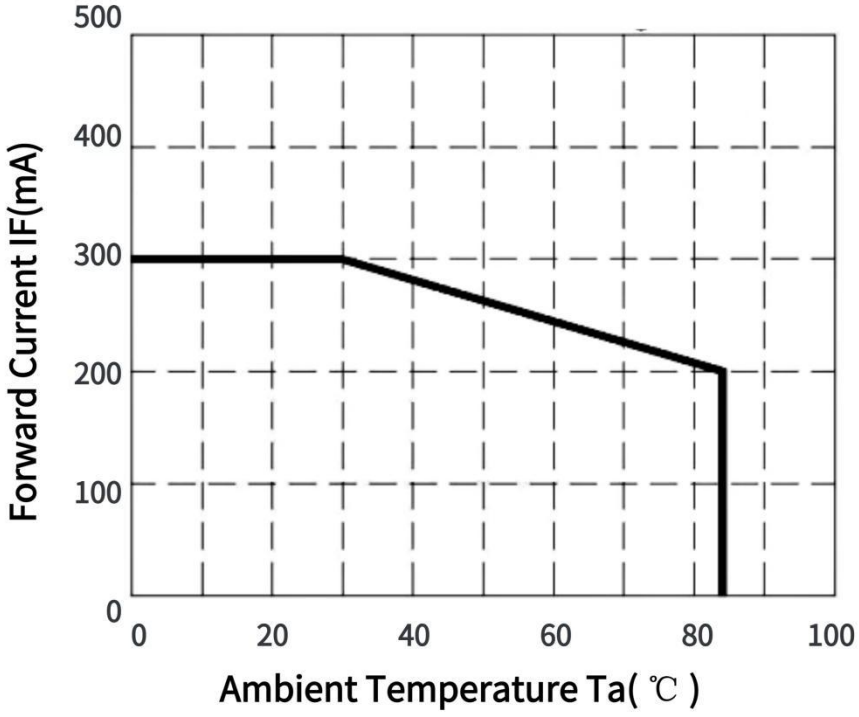
VF Rank	1	2	3	4
MIN	2.8	3.0	3.2	3.4
MAX	3.0	3.2	3.4	3.6

Notes:Tolerance for each forward voltage bin is ±0.05V
每 Bin 顺向电压公差为±0.05V。

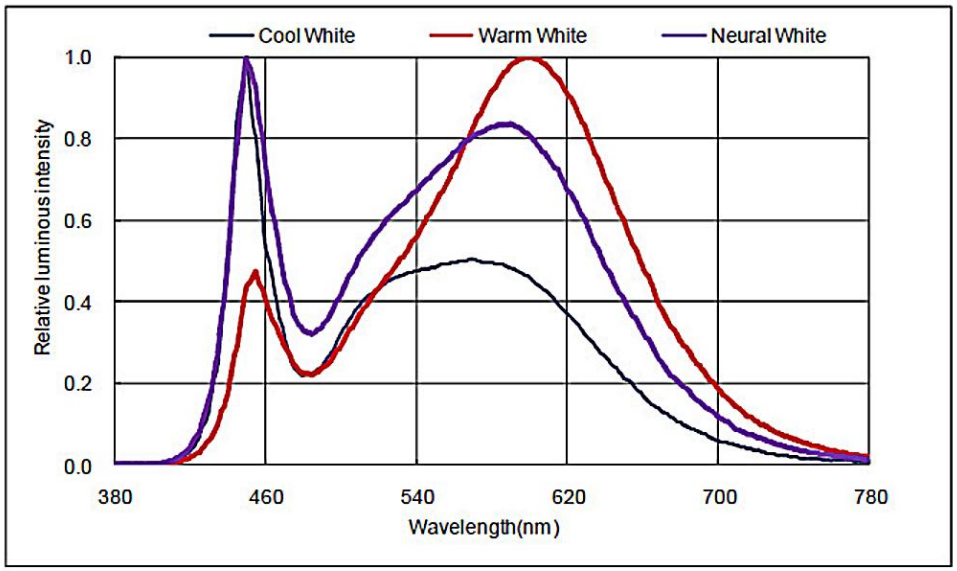
6.Typical Electro-Optical Characteristics Curves 光电曲线



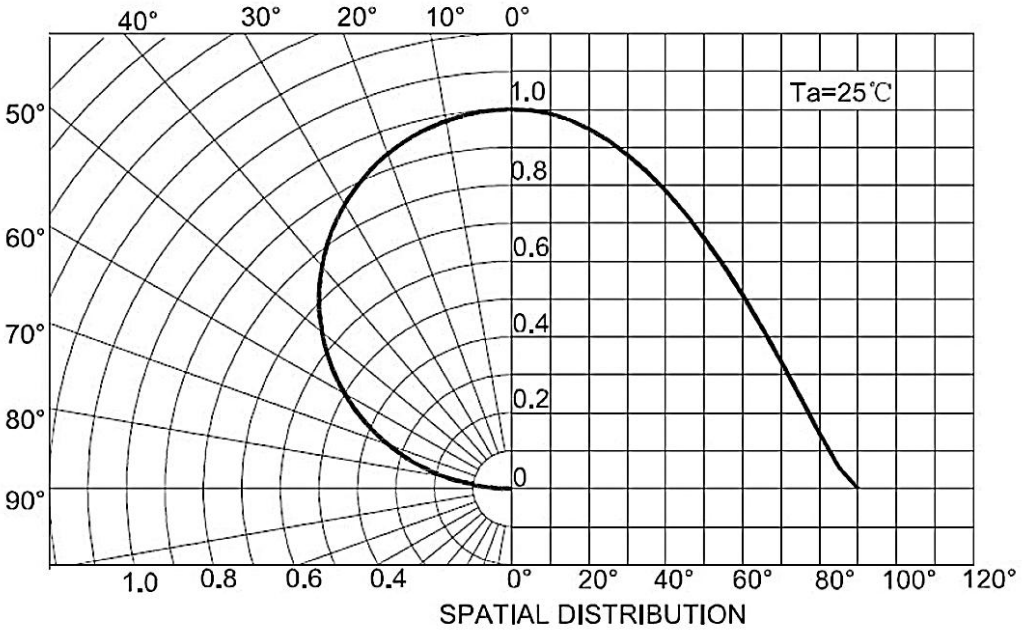




Relative spectral emission 相对光谱分布特性曲线



Radiation diagram 辐射图特性曲线

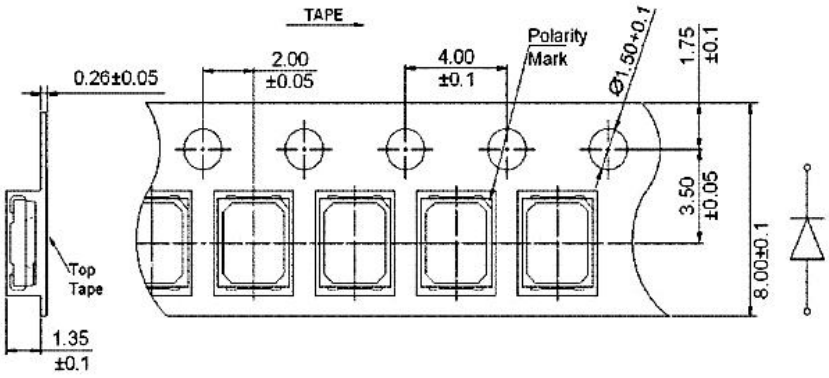


7.Label and identification 标签及标识

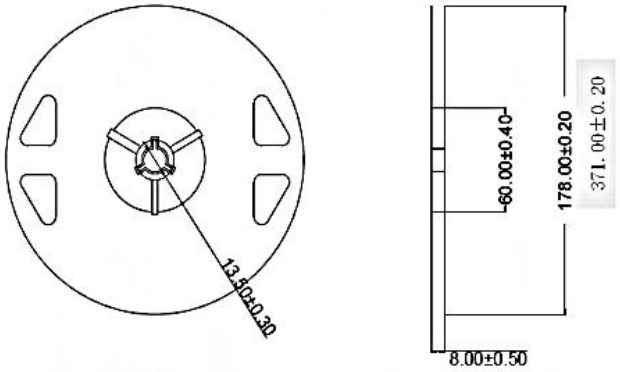
HUE：色温 Color temperature
CAT：亮度 Luminous flux
VF：电压 Voltage
IF：电流 Current
Quantity：数量 Number

8.Packaging Standard 包装标准

Tape specifications（Units:mm） 载带规格（单位：毫米）



Reel Dimensions 卷轴尺寸



Product packaging 产品包装

Notes:

1. Use carrier tape and aluminum foil bag for packaging.

采用载带采用铝箔袋包装。

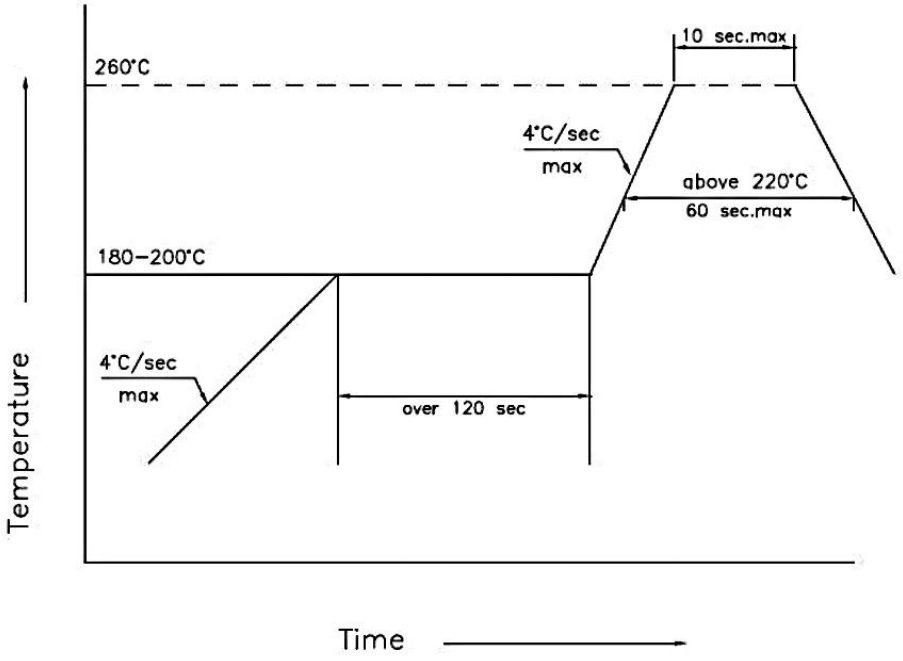
2. Each reel with a diameter of 371mm is loaded with 20000pcs and sealed in an aluminum foil bag.

直径 371mm 的每个卷轴上装 20000pcs，并密封在铝箔袋中。

3. There are gaps in the front and back (without packaging LED), front space: Min 50mm, rear space: Min 100mm.

前后有空部（不包装 LED）前空：min 50mm 后空：min 100mm。

9.SMT Reflow Soldering Instructions SMT 回流焊说明



10.Soldering iron 烙铁焊接

1、Soldering should not be done more than two times.
过回流焊次数不可超过 2 次。
2、 When soldering, do not put stress on the LEDs during heating.
焊接加热过程中不要挤压 LED。
3、After completion of welding, do not force curve circuit board, after being products wet down to room temperature, and then to other operations.
焊接完成后，不要用力弯曲线路板，待产品降湿至室温后,再进行其它操作。
4、When repairing, The heating temperature control within 260℃,and the heating timecontrol within30s(If the temperature is too high or time is too long, LED will be permanentdamaged)
维修时 LED 受热温度控制在 260℃以内，时间控制在 30s 以内(如果温度过高或者时间过长都会导致 LED 损伤)
5、If manual soldering is used,the use If a soldering iron If less than 25W is recommended.The temperature of the iron must be kept below 315℃,with soldering time within 3 seconds and each Electrode can be only soldered at one time.
如使用手工焊接，建议使用小于 25 瓦电烙铁，烙铁温度控制在 315℃以下，焊接时间控制在 3 秒以内，且每个电极只能焊接一次。

11.Caution 注意事项

1、 After open the package,the LED should be kept at 25℃,65% RH environment or less.
打开包装后请在温度 28±3℃湿度 65±5%的环境下使用。
2、 The LED should be soldered within 6 hours after opening the package.
打开包装后请在 6 小时内焊接。
3、 The LAMP LED is an ESD sensitive device. All the equipment and machine must be properly grounded.
LED 是静电敏感器件，使用时所有设备、机器都需有接地导电措施。
4、When make use of it,please use static-free container,operator showld ware antistatic clothes and rope-satic-ring aso should make effective ground.
请使用防静电的盛装容器，作业人员应穿著防静电服装及佩戴有绳静电环并做有效接地。
5、 Damaged device will appear some symptoms, lower forward voltage,higher leak current or even short curcuin.
受静电与突波破坏 LED 的电性特性上，会有明显的漏电流，或驱动电压明显变低，甚至是短路现象。
6、 Ferrochromium soldering:power keep no more than 30W,tip temperature should not pass 280℃ soldering time within 3 second.
铬铁焊接时铬铁功率不要超过 30W，尖端温度不要超过 280℃，焊接时间不要超过 3 秒。
7、 Weve-soldering:temperature should not pass 240℃,soldering time within 5 second.
回流焊接时温度不要超过 240℃，焊接时间不要超过 5 秒。
8、 After soldering tha LED should keep out off any shake or outer force before it come to normal temperature.
在焊接温度回到正常以前，必须避免使 LED 受到任何震动或外力。
9、LED is one-way continuity,please check electrode before mount,if amount wrong,the LED ship will damage or fail when LED applied voltage.
单项导通性，安装前确认极性，若装反，在施加电压时容易造成 LED 晶片损伤或失效。
10、Please design the PCB board to keep a distance between LED and other emit heat component.
线路设计时，请不要将 LED 与发热元件靠得过近。
11、 Strongly recommend design the board according setting current other than setting voltage.if you are really need setting voltage type please consider there may cause influence arise by difference voltage of difference LED.
电路设计上，建议以定电流设计，若为定电压设计，请考虑 LED 之间不同正向电压所可能造成影响。
12、The outer voltage change will bring the current index change.unsuitable design and current control,easy cause LED fail.for example excess current will cause LED life short or even burn down, too little electricity will cause lacking light.
LED 外加电压变化，会造成电流指数级变化，不当设计与电流控制，易造成 LED 失效，如电流过大引起寿命问题甚至烧毁，电流过小引起亮度不足。
13、 If you need make difference BIN LED in the one module.please confirm whether it can meet the electric and optics characteristic require such as the current balance,emitting and brightness consistency.
不同 BIN 号 LED 需安装在同一个组件时，请先确认是否可满足相关电气及光学之特性要求，如电流是否均衡，光色、亮度的一致性等。