

承认书

SPECIFICATION FOR APPROVAL

客户名称 Customer:

产品名称Description: Top View 3030 LED

产品型号Model: TGC-3030 13号光谱 缺口为负

供方承诺，变更任何光源的原材料或者工艺，都必须重新送样，经过 **GCL** 同意后，方可变更！

深圳市添光彩照明有限公司

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深圳市添光彩照明有限公司

Shenzhen Avatar Optoelectronic Technology co.,ltd

※产品特征 Features

1.外型尺寸: 3.0×3.0×0.55mm

Outline Package: 3.0×3.0×0.55mm (Top View White LED)

2.发光颜色: 全光谱

Emitted Color: Full spectrum

3.封装胶水: 硅胶

Encapsulating Resin: Silicon Resin

4.适用于所有表面贴装技术组装生产

Suitable for all SMT assembly methods

5.完全符合 ROHS 指令

Comply with RoHS

※产品应用 Applications

1. 室内室外 光学指示

Indoor and outdoor displays

2. 背光 Backlighting

3. 汽车内部照明 Interior automotive lighting

4. 信号照明

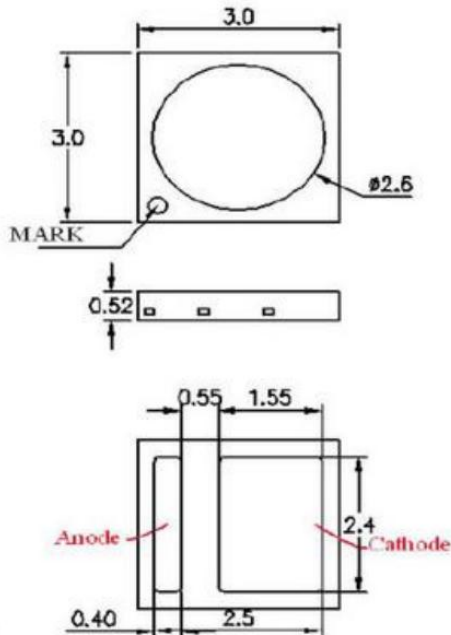
Signal and symbol luminaire



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

※外型尺寸图 Package Outline Dimensions

焊盘设计 PAD Lay Out PCB



1. All dimensions are in millimeters (inches);

单位: 毫米 (英寸)

2. Tolerances are ± 0.2 mm (0.008inch) unless otherwise noted.

未标公差处公差为 0.2mm(0.008 英寸)

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※最大绝对额定值 **Absolute maximum ratings at Ta=25°C**

参数名称 Parameter	符号 Symbol	数值 Value	单位 Unit
功率耗损 Power dissipation	Pd	1360	mW
正向电流 Forward current	I _F	350	mA
脉冲电流[1] Peak pulsing current	I _{FP}	400	mA
最大反向电压 [2] Reverse Voltage	V _R	5	V
工作温度范围 Operating temperature range	Topr	-40~85	°C
贮存温度范围 Storage temperature range	Tstg	-40~85	°C
最大节点温度 Junction Temperature	TJ	115	°C
回焊条件 Reflow Soldering Condition	Ta	230or260/10s Max.	°C

[1] 无齐纳时反向电压项目有效 It is available when without zener on VR

[2] I_{FP} 条件: 脉冲持续时间 ≤ 10msec, 占空因素 ≤ 1/10

I_{FP} Conditions: Pulse Width ≤ 10msec. and Duty cycle ≤ 1/10.

※电光特性 **Electrical-optical characteristics at Ta=25°C**

参数名称 Parameter	符号 Symbol	测试条件	Min.	Typ.	Max.	单位 Unit
		Test conditions				
正向电压 Forward voltage	V _F	I _F = 350mA	3.0	3.2	3.4	V
光通量 luminous flux	ϕ	I _F = 350mA	85	88	91	LM
色温 CCT	λ D	I _F = 350mA	4300-4600			K
显色性 Ra	Ra	I _F = 350mA	>95			-
半功率角 Viewing angle at 50% I _v	2θ _{1/2}	I _F = 350mA	-	120	-	deg
反向电流 Reverse current	I _R	V _R = 5V	-	-	10	μA

NOTE:

1. Tolerance of luminous flux is ±10%

2. 光通量公差为±10%

2. Tolerance of forward voltage is ±0.05V

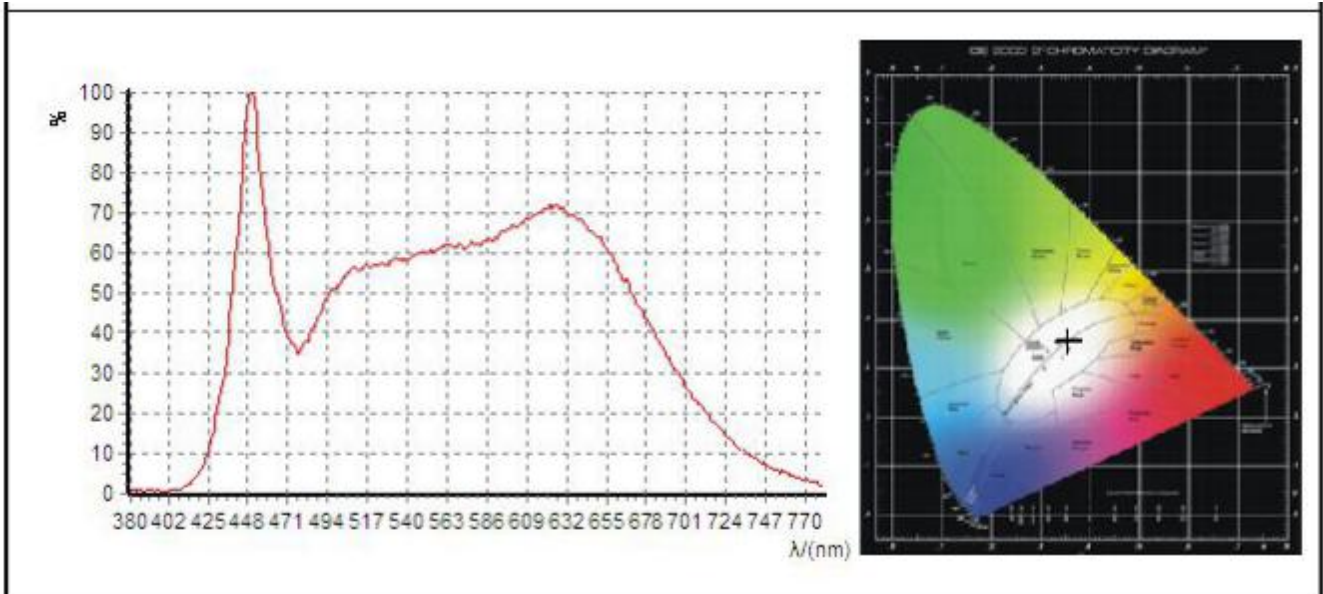
正向电压公差±0.05v

3. CCT Tolerance ±200 色温差 ± 200K

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※典型光电参数曲线 Typical Electrical / Optical Characteristics Curves
 (环境温度 25 Ambient Temperature)



光谱参数		光电参数		
峰值波长:	450.0 nm	点亮电流:	0.1 mA	
主波长:	582.9 nm	预热时间:	500 ms	
质心波长:	439.7 nm	测试电流:	350.0 mA	
中心波长:	441.0 nm	正向电压:	3.21 V	
半波宽:	26.0 nm	光通量:	89099.8 mlm	
色温:	4507 K	光效率:	79.306 lm/w	
色品坐标 (x, y):	0.3586, 0.3504	Ra1:	96.4	Ra2:97.9 Ra3:96.7
色品坐标 (u, v):	0.2211, 0.3241	Ra4:	96.5	Ra5:97.5 Ra6:95.6
显色指数:	97.1	Ra7:	97.9	Ra8:98.8 Ra9:95.8
色纯度:	0.127	Ra10:	97.3	Ra11:95.5 Ra12:80.6
光功率:	379.9820 mw	Ra13:	96.9	Ra14:97.7 Ra15:96.1

※ **BIN** 区设置 **BIN Range**

1.正向电压分档@**IF=350mA** Forward Voltage Bin Code List

* 正向电压测量精度公差±5%。

Voltage measurement allowance: ±5%

正向电压 V_F (V) Forward Voltage		
V_F Bin code	Min.	Max.
V3.0	3.0	3.2
V3.0	3.2	3.4

2. 光通量分档@**IF=350mA** luminous flux Bin Code List

光通量 ϕ (LM) luminous flux		
lv Bin code	Min.	Max.
L20	85	88
L22	88	91

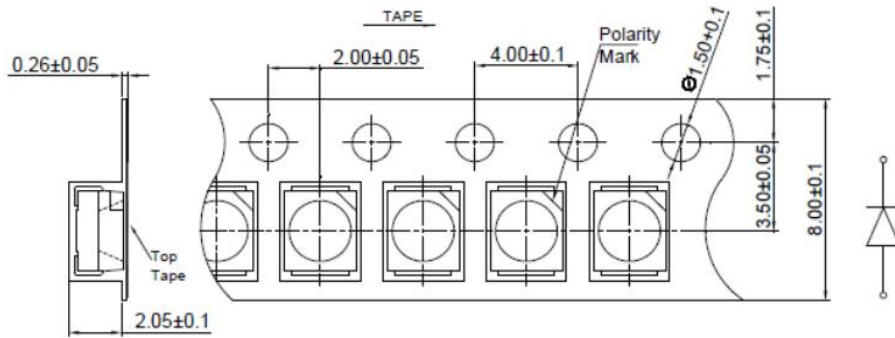
1. Tolerance of luminous flux is ±10%

光通量公差为±10%

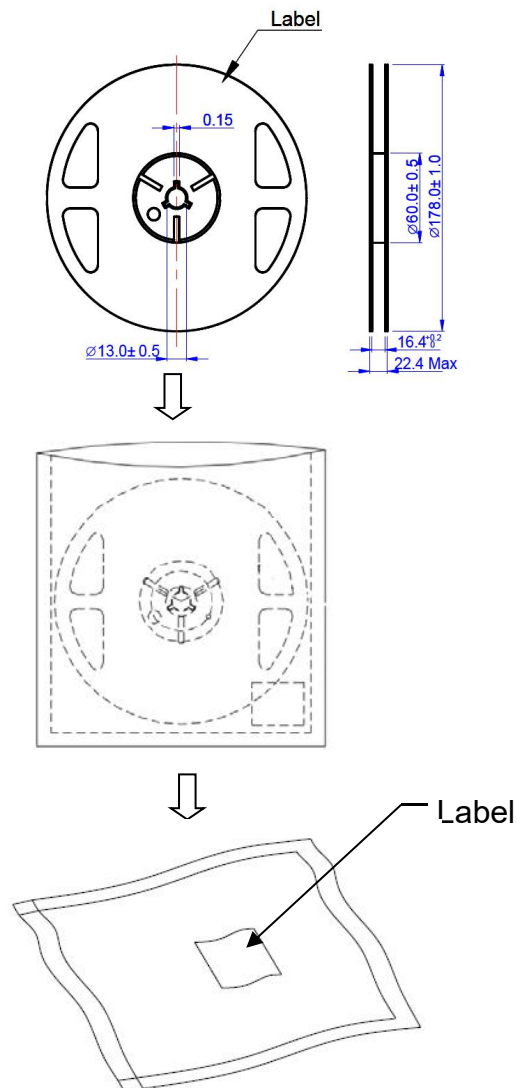
※包装规格 **Packaging Specifications**

1. 包装载带尺寸 **Package Dimensions of Tape** (unit: mm)

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



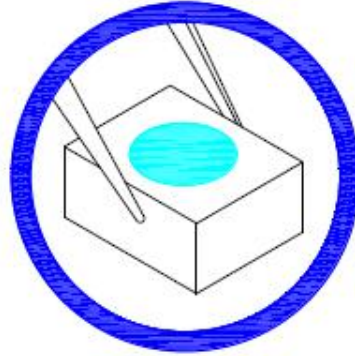
2. 卷盘尺寸 **Dimensions of Reel (Unit: mm)**



※ 处理预防 Handling precautions

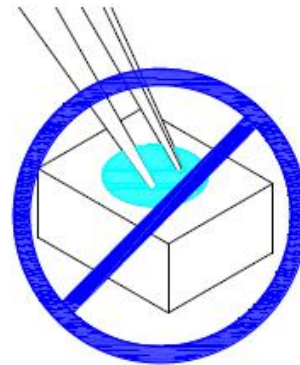
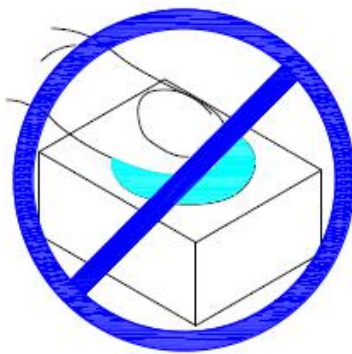
1. 处理元件沿着端面借用镊子或适当工具

.Handle the component along the side surface by using forceps or appropriate tools



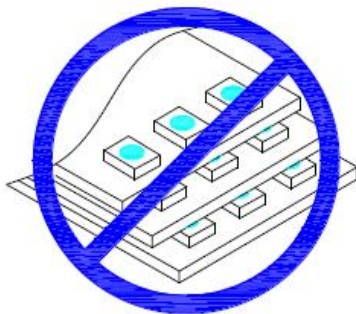
2. 不直接用手或工具接触硅胶或透镜表面，它可能损害内部电子线路

Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry



3.不将发光二极管叠堆一起，它可能会刮损硅胶或透镜

Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage



4. 不适合在酸性的环境中使用

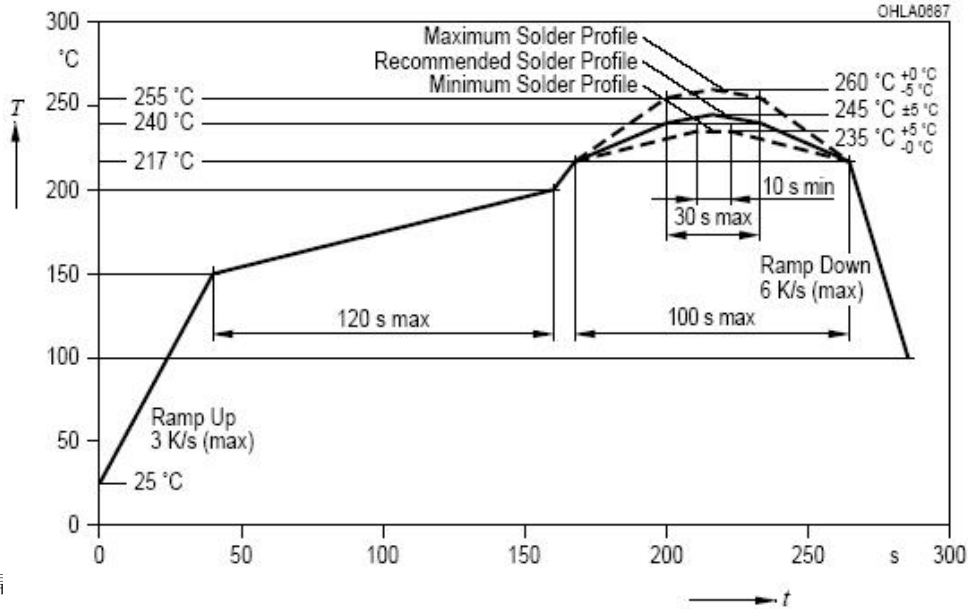
Not available in the situation of acidity for PH



※注意事项Precautions for use

回流焊规范Reflow Profile

无铅产品回流焊温度条件曲线规范 Pb-free Solder temperature Profile



Note: a) 材料焯

Reflow soldering should not be done more than two times.

b) 焊接时请不要重压LED 灯。

Do not put stress on the LEDs when soldering.

c) 焊接后温度未回降到常温时请勿扭曲线路板。

Do not warp the circuit board before it have been returned to normal ambient conditions after soldering.

手工焊接规范 Hand Soldering Profile

手工焊接时，烙铁温度不高于300°C，每个焊脚焊接时间不超过3 秒，只能焊接一次。（不建议手工焊接）。

The temperature of the iron should be lower than 300°C and soldering within 3sec per solder-pad is to be observed. The hand solder should be done only one times (Not recommended by welding)

贮存规范 Storage Profile

1. 请在未准备使用LED 之前不要打开防静电袋子。

Do not open the moisture proof bag before ready to use the LEDs.

2. LED 在未开封之前应保存在30°C以下，湿度在60%以下的环境中，最长保存期为1 年。

The LEDs should be kept at 30°C or less and 60%RH or less before opening the package.

The max. storage period before opening the package is 1 year.

3. 打开包装待后，LED 需保存在30°C/40%湿度以下的条件，且必须在3天内使用完。

After opening the package, the LEDs should be kept at 30°C/40%RH or less, and it should be used within 3 days.

4. 如果 LED 超出了第 3 点要求，则 LED 必须经过烘烤才能使用，烘烤条件为：70±5°C,8 个小时。

If the LEDs be kept over the condition of 3, baking is required before mounting. Baking condition as below: 70±5°C for 8 hours.