



Guangdong Taixing photoelectric technology Co., LTD

## 规格书 Product specification

客户名称:

Customer \_\_\_\_\_

客户商品代码:

Customer Type \_\_\_\_\_

品名:

Product \_\_\_\_\_

产品型号: TX-TCBYKYBMRHQGB-11

RART \_\_\_\_\_

审核:

CHeck \_\_\_\_\_

制作:

Design \_\_\_\_\_

日期:

2024.05.15

Date \_\_\_\_\_

WEB : [www.taixingled.com](http://www.taixingled.com)

E-MAIL : [gd@taixingled.com](mailto:gd@taixingled.com)

TEL : 0769-21683819

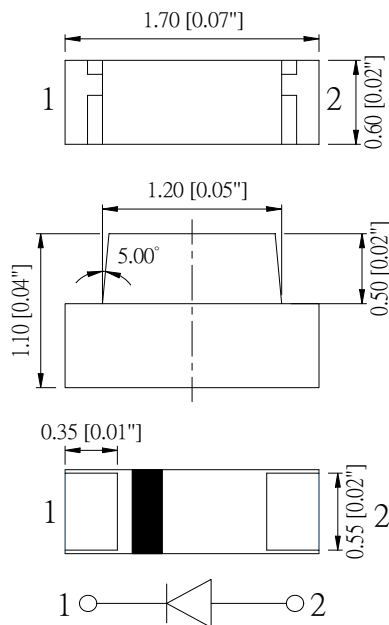
**Characteristics 特点：**

1.7mm 0.6mm SMTLED, 1.1mm thickness.  
 长1.7毫米 宽0.6毫米, 厚1.1毫米.  
 Luminescent color and colloid: yellowish green/colloid transparent.  
 发光颜色和胶体: 黄绿色/胶体透明.  
 Package: 4000pcs/reel  
 包装: 4000个/卷

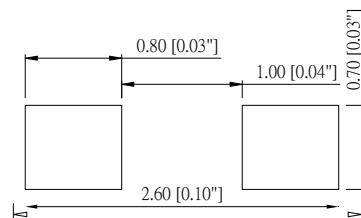
**Features 产品特征：**

Small size, small heat, high light efficiency, low light decay.  
 体积小, 发热量小, 光效高, 光衰小.  
 Fast reaction speed, long life, a variety of colors to choose.  
 反应速度快, 寿命长, 有多种颜色可供选择.  
 Suitable for SMT assembly and welding processes.  
 适用于SMT组装和焊接工艺.  
 Environmental protection process meets ROHS environmental requirements.  
 环保工艺符合ROHS环保要求.

**Package Dimension 外观尺寸：**



**Recommend Soldering Pad 推荐焊盘**



Tips: This product is only suitable for indoor, consumer category indicator light, if there are other uses, please consult our business recommendation.

温馨提示：此款产品仅适用于室内，消费品类指示灯，如有其他用途需要具体请咨询我们业务推荐。

**Notes 备注：**

- All dimensions are in millimeters (inches);  
所有尺寸均以毫米(英寸)为单位；
- Tolerances are 0.1mm 0.004inch unless otherwise noted.  
除非另有说明，公差0.1mm0.004英寸。

Absolute maximum ratings (TA=25°C) 绝对最大额定值(TA=25 )

| Parameter 参数                                  | Symbol 符号 | Value 数值 | Unit 单位 |
|---|-----------|----------|---------|
| Forward current 正向电流                          | If        | 25       | mA      |
| Reverse voltage 反向电压                          | Vr        | 5        | V       |
| Power dissipation 功耗                          | Pd        | 62       | mW      |
| Operating temperature 工作温度                    | Top       | -40 ~+85 | °C      |
| ESD(Human-body mode 静电)                       | --        | 4        | KV      |
| Storage temperature 储存温度                      | Tstg      | -40 ~+85 | °C      |
| Peak pulsing current (1/8 duty f=1kHz) 峰值脉冲电流 | Ifp       | 100      | mA      |

Electro-optical characteristics (TA=25°C) 光电特性(TA = 25 ) [www.taixingled.com](http://www.taixingled.com)

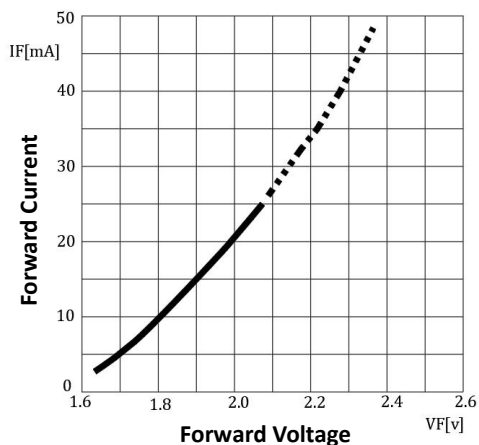
| Parameter 参数                       | Test Condition 测试条件 | Symbol 符号        | Value 数值 |        |        | Unit 单位 |
|------------------------------------|---------------------|------------------|----------|--------|--------|---------|
|                                    |                     |                  | Min 最小   | Typ 中间 | Max 最大 |         |
| Wavelength at peak emission 峰值发射波长 | If=20mA             | $\lambda_p$      | --       | 573    | --     | nm      |
| Spectral half bandwidth 半波宽        | If=20mA             | $\Delta\lambda$  | --       | 13     | --     | nm      |
| Dominant wavelength 主波长            | If=20mA             | $\lambda_d$      | 565      | --     | 575    | nm      |
| Forward voltage 正向电压               | If=20mA             | Vf               | 1.8      | --     | 2.4    | V       |
| Luminous intensity 光强度             | If=20mA             | Iv               | 30       | --     | 60     | mcd     |
| Viewing angle at 50% Iv 50%视距下的视角  | If=10mA             | 2 $\theta_{1/2}$ | --       | 120    | --     | Deg     |
| Reverse current 反向漏电流              | Vr=5V               | Ir               | --       | --     | 10     | $\mu$ A |

[www.taixingled.com](http://www.taixingled.com)

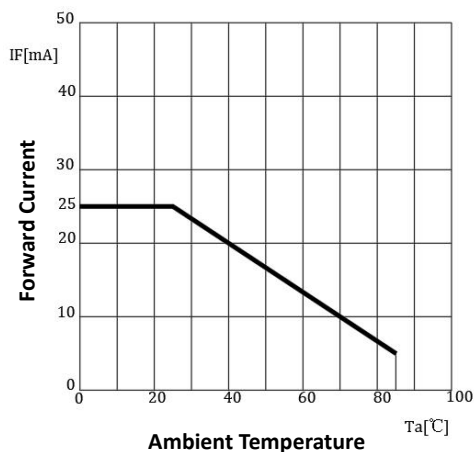
## Typical Optical Characteristics Curves 典型光学特性曲线

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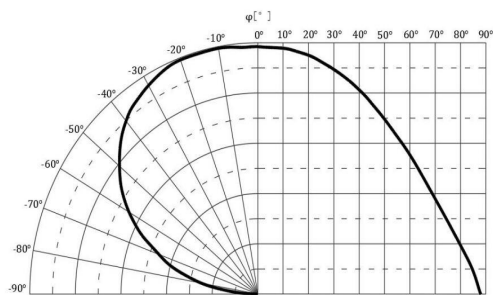
**Forward Current vs Forward Voltage**  
Ta=25°C 正向电流VS电压



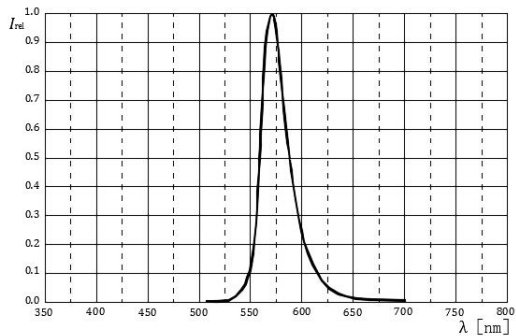
**Forward Current Derating Curve**  
正向电流降额曲线



**Radiation Characteristics 辐射特性**  
IF=10mA Ta=25°C



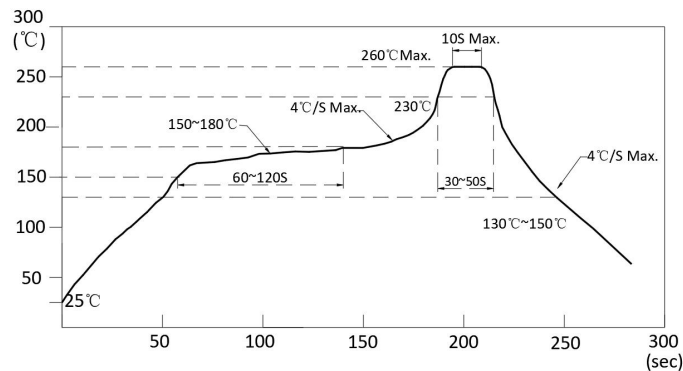
**Relative Spectral Emission 相对光谱发射**  
IF=20mA, Ta=25°C



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**Reflow Profile 炉温**

■ Reflow Temp/Time 回流焊温度/时间 [www.taixingled.com](http://www.taixingled.com)



Notes: 备注：

1. We recommend the reflow temperature 245°C (±5°C). The maximum soldering temperature should be limited to 260°C [www.taixingled.com](http://www.taixingled.com)  
我们推荐回流温度为245 (±5)。最高焊接温度应限制在260。
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.  
环氧树脂暴露在高温下时不要对其造成应力。
3. Number of reflow process shall be 2 times or less.  
回流焊次数不超过2次。

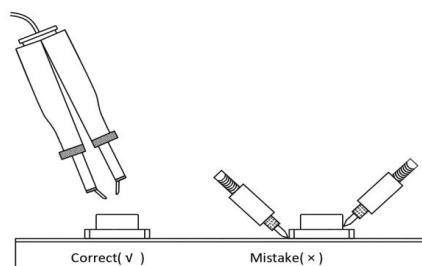
■ Soldering iron 烙铁使用

Basic spec is ≤ 5sec when 320°C (±20°C). If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 350°C

基本规格为320 (±20)时5秒。温度越高，时间越短(+10 -1秒)。烙铁的功耗应小于20W，温度应可控设备温度应在350 以下。

■ Rework 返工

1. Customer must finish rework within 5 sec under 340°C. 客户必须在340 下5秒内完成返工。
2. The head of iron cannot touch copper foil. 铁头不能碰到铜箔。
3. Twin-head type is preferred. 首选双头型。 [www.taixingled.com](http://www.taixingled.com)



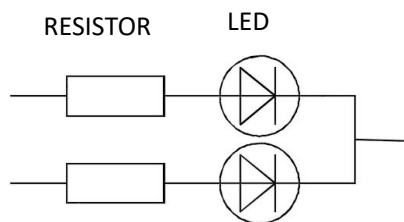
- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow solder etc.  
避免任何物体摩擦或刮擦树脂，在高温下，如回流焊等。

**Handling precautions 使用处理措施** [www.taixingled.com](http://www.taixingled.com)

### 1. Drive Method. 驱动方法

A LED is a current-operated device. In order to ensure intensity uniformity on multiple LEDs connected in parallel in an application, it is recommended that a current limiting resistor be incorporated in the drive circuit, in series with each LED as shown in Circuit below. LED是电流操作的器件。为了确保应用中并联的多个LED的强度均匀性，建议在驱动电路中加入一个限流电阻，与每个LED串联，如下图所示：

[www.taixingled.com](http://www.taixingled.com)



### 2. Storage 储存

2.1 Do not open moisture proof bag before the products are ready to use.

在产品准备使用之前，请勿打开防潮袋。

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

打开包装前：LED应保持在30°C以下，60%RH以下。

2.3 After the package is opened, the products should be used within a week or they should be keeping to store at  $\leq 20$  R.H. with zip-lock sealed.

打开包装后，产品应在一周内用完或以  $\leq 20$  R.H. 的温度保存，并以拉链密封。

### 3. Baking 烘烤处理

It is recommended to baking before soldering when the pack is unsealed after 72hrs. The Conditions are as followings: 当包装在72小时后打开密封时，建议在焊接前进行烘烤。条件如下：

3.1 60 $\pm$ 3°C x (12~24hrs) and <5%RH, taped reel type

3.2 100 $\pm$ 3°C x (45min~1hr), bulk type

3.3 130 $\pm$ 3°C x (15~30min), bulk type

Test items and results of reliability 可靠性测试专案及结果

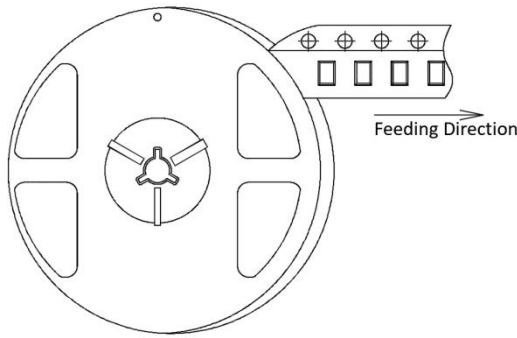
| Test Item<br>测试项目                               | Test Conditions<br>测试条件                             | Standard Test Method<br>标准试验方法 | Note<br>注意 | Number of Test<br>测试次数 |
|---|---|--------------------------------|------------|------------------------|
| Reflow Soldering 静态回流焊                          | Ta=260±5℃,Time=10±2S                                | JB/T 10845-2008                | 3times     | 0/22                   |
| Temperature Cycling<br>静态温度迴圈                   | -40±5℃ 30±1min<br>↑→(25℃/5±1min)↓<br>100±5℃ 30±1min | GB/T 2423.22-2012              | 100cycles  | 0/22                   |
| High Humidity High Temp.<br>Storage Life 静态高温高湿 | Ta=85±5℃,ψ(%)=85±5%RH                               | GB/T 2423.3-2006               | 1000hrs    | 0/22                   |
| High Temperature<br>Storage Life 静态高温储存         | Ta=100±5℃,non-operating                             | GB/T 2423.2-2008               | 1000hrs    | 0/22                   |
| Low Temperature<br>Storage Life 静态低温储存          | Ta=-40±5℃,non-operating                             | GB/T 2423.1-2008               | 1000hrs    | 0/22                   |
| Life Test 动态室温通电                                | Ta=26±5℃,@20mA,<br>ψ(%)=25%RH~55%RH                 | --                             | 1000hrs    | 0/22                   |
| Low Temperature<br>Operating Life 动态低温通电        | a=-20±5℃,@20mA                                      | GB/T 2423.1-2008               | 1000hrs    | 0/22                   |

Notes 备注：

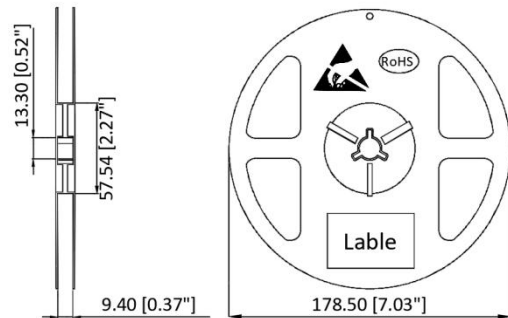
1. The tolerance of luminous intensity (Iv) is ±15% . 发光强度(Iv)公差为±15%。
2. The tolerance of dominant wavelength is ±2nm. 主导波长公差为±2nm。
3. The tolerance of Voltage is ±0.1V. 电压公差为±0.1V [www.taixingled.com](http://www.taixingled.com)
4. This specification is a standard specification of our factory, can make in accordance with customer's special requirement. 本规格为我厂标准规格，可根据客户的特殊要求定做。

Series SMD Chip LED Lamps Packaging Specifications 系列贴片led灯封装规范

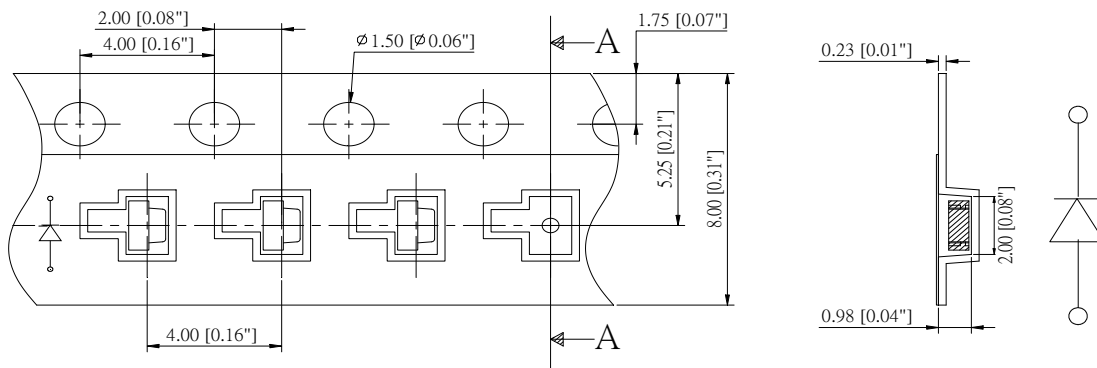
● Feeding Direction 编带方向



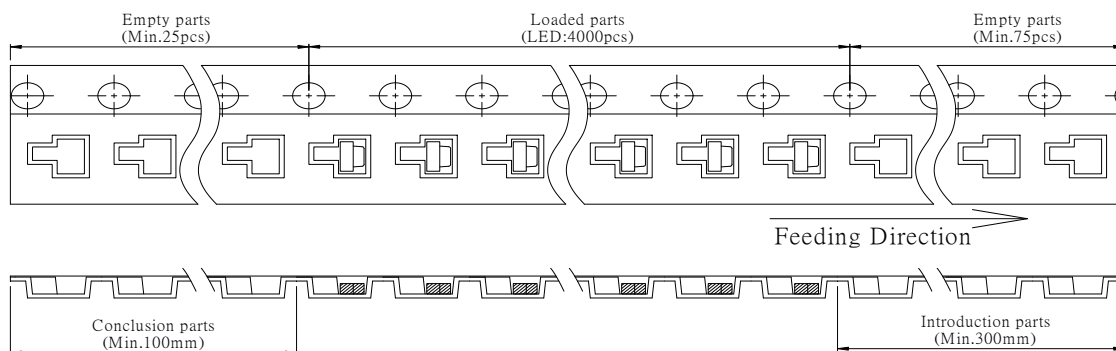
● Dimensions of Reel (Unit: mm) 卷盘尺寸



● Dimensions of Tape (Unit: mm) 胶带尺寸 (单位:mm)



● Arrangement of Tape 编带方式



Notes 备注 :

1. Empty component pockets are sealed with top cover tape;B 用顶盖胶带密封空部件口袋;
2. The maximum number of missing lamps is two; 最多漏灯为2个
3. 4,000pcs/Reel. 4000个每盘 .

Series Chip LED Lamps Packaging Specifications 系列贴片led灯封装规范

● **Transportation Packing 运输包装**

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