

# FS2152-050-1208-FAXXX-0XX

## 产品规格书

### PRODUCT DATA SHEET








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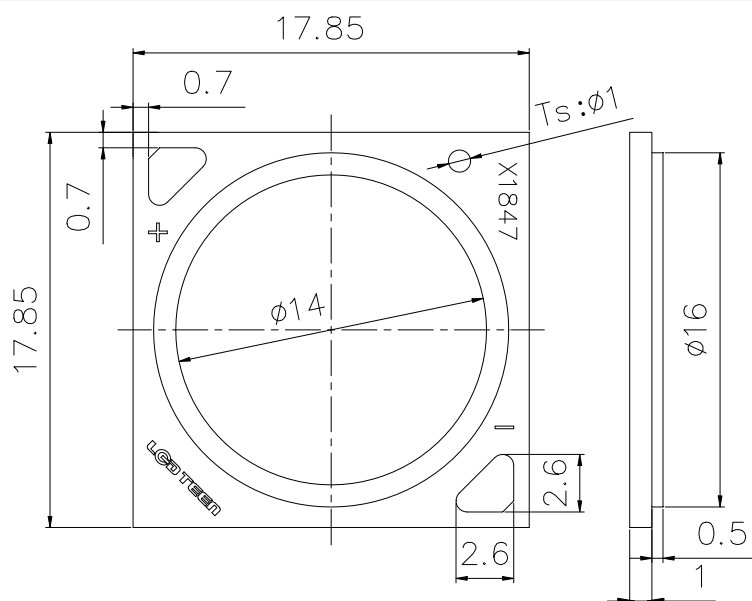
\*规格书如有变更恕不另行通知。

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### >1.应用范围 Main Applications

导轨灯 Tracking Light	射灯 Spot Light	帕灯 Par Light	球泡 Bulb Light	筒灯 Down Light
				

### >2.产品尺寸 Mechanical Dimensions



\*所有尺寸单位: mm, 所有尺寸公差: ±0.3mm。

All dimensions are in millimeters (mm), tolerances are ±0.3 mm.

### >3.产品特点 Features

高光品质、高亮度、高光效

High color quality, high-flux, high-efficacy

低热阻

Low thermal resistance

易于安装使用

Easy for assemble

高可靠性

Long lifetime

符合 RoHS 标准

RoHS compliant

光色参照 ANSI、IEC、硅能标准

Available white chromaticity bins form ANSI, IEC, LEDTEEN options

>4.光电参数 Electro Optical Parameters

标称电流 (If) =1200mA, 温度 (Tc) = 25℃

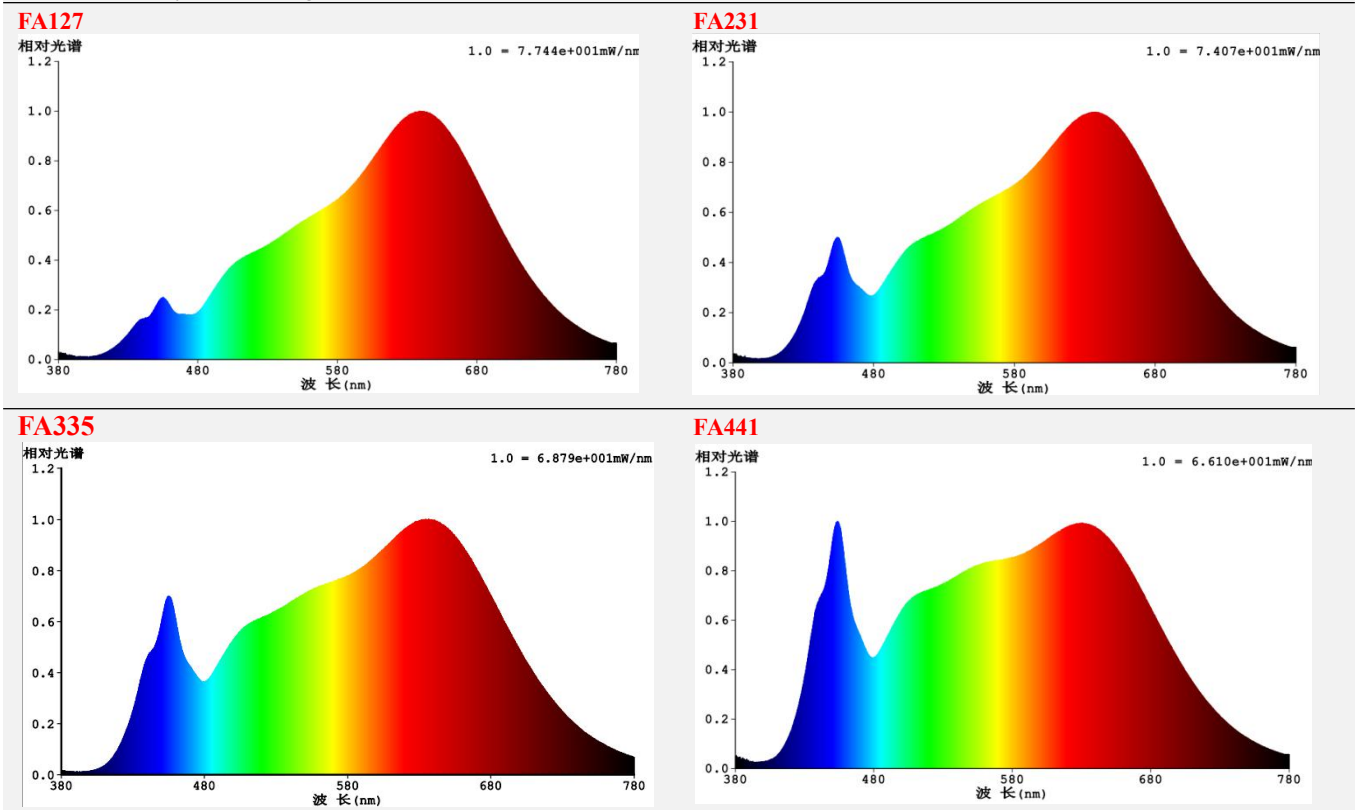
产品型号 Product Code	色温 CCT	Ra Min.	TM-30		光通量 Luminous Flux (lm)		光效 Efficacy (lm/w)	电压 Voltage (V)
			Rf	Rg	Min.	Typ.	Typ.	Typ.
FS2152-050-1208-FA127-000	2700K	95	97	100	4113	4330	97	37.2
FS2152-050-1208-FA231-000	3100K	95	95	104	4410	4642	104	37.2
FS2152-050-1208-FA335-000	3500K	95	94	104	4580	4821	108	37.2
FS2152-050-1208-FA441-000	4100K	95	94	104	4792	5044	113	37.2
FS2152-050-1208-FA550-000	5000K	95	94	102	4919	5178	116	37.2
FS2152-050-1208-FA665-000	6500K	95	93	101	5046	5312	119	37.2

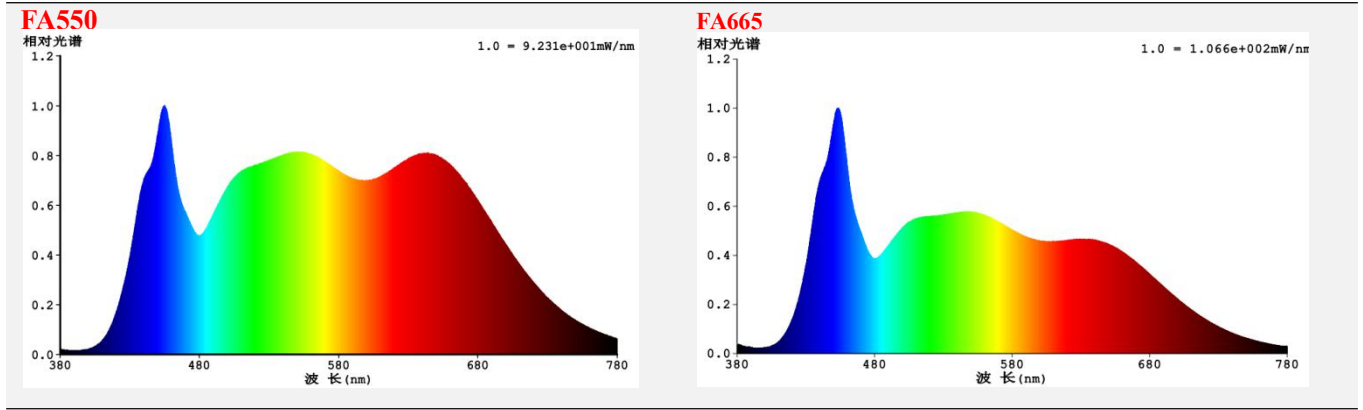
光谱图 spectrum distribution

相对光谱与波长曲线图

Relative Intensity vs Wavelength

Tc=25℃ If=1200mA





代码	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
FA1	99	99	97	97	99	99	99	98	95	99	94	97	99	98	99
FA2	97	98	98	98	96	97	96	97	98	99	97	94	94	97	98
FA3	97	98	97	96	97	96	98	98	95	97	94	92	97	98	96
FA4	98	98	96	97	99	96	98	99	98	97	95	88	98	97	97
FA5	97	96	94	97	96	93	98	98	94	90	96	78	96	96	97
FA6	97	95	92	96	96	92	96	98	97	88	95	79	96	95	99

\*测试仪测量的公差 电压  $\pm 5\%$ , 光通量  $\pm 7\%$ ,  $R_a \pm 1$ 。

The tolerance of measurement at our tester is voltage  $\pm 5\%$ , luminous flux  $\pm 7\%$  and  $R_a \pm 1$ .

\*光通量在积分球内测量。

Luminous flux inside the integrating sphere measurements.

>5.极限参数 Limit Parameters

项目 Item	符号 Symbol	最小 Min	最大 Max	单位 Unit
正向电流 Forward Current	$I_F$	/	1840	mA
正向电压 Forward Voltage	$V_F$	33.6	39.6	V
工作温度 Operating Temperature	$T_{opr}$	-10	+85	°C
储存温度 Storage Temperature	$T_{stg}$	-40	+100	°C
手工焊接温度 Soldering Temperature	$T_{sol}$	/	350	°C
结温 Junction temperature	$T_j$	/	125	°C
热阻 Thermal Resistance	$R_{j-c}$	/	0.78	°C/W
抗静电能力 Antistatic Ability	ESD	2000	/	V

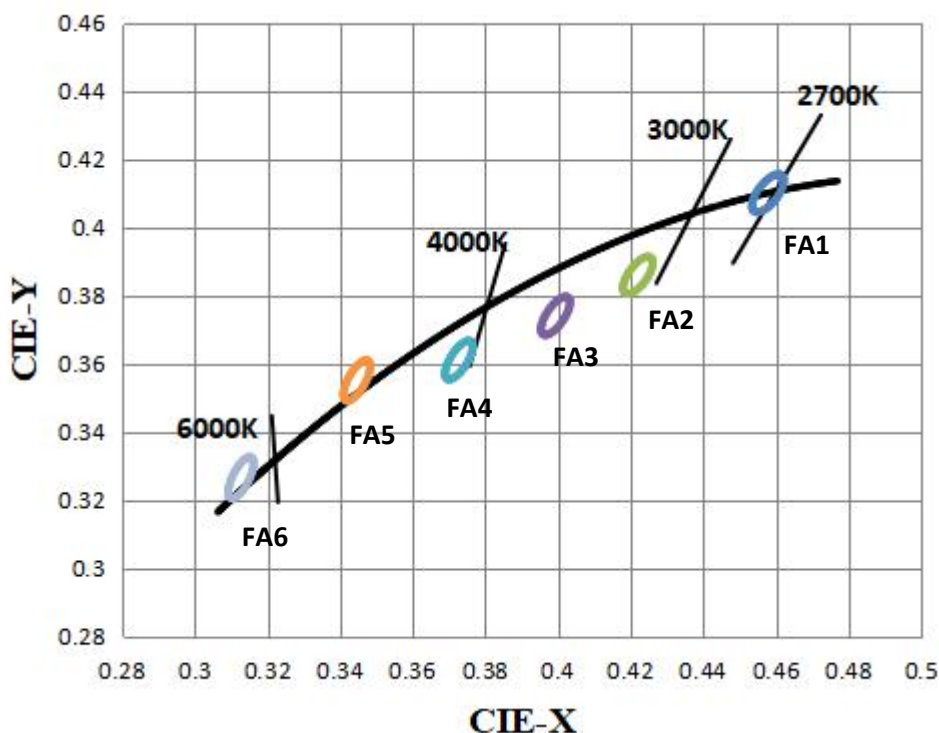
\*产品使用时, 基板温度不能超过 85°C, 若有超出温度, 请降低电流使用或联系我们。

The using temperature is less than 85°C; please reduce the using current or contact with us if using temperature is more than 85°C.

\*当手工焊接时,烙铁的温度不能超过 350°C,时间不能超过 5 秒。

When hand soldering,keep the temperature of iron below less 350°C less than 5seconds.

>6.色度坐标组 Chromaticity Coordinate Groups



色温代码	色温	电流 mA	中心坐标		半长轴 a	半短轴 b	θ
			CIE-X	CIE-Y			
FA1	2700K	1200	0.4578	0.4101	0.0065	0.0028	55.0
FA2	3100K	1200	0.4220	0.3860	0.0063	0.0026	56.77
FA3	3500K	1200	0.3993	0.3741	0.0063	0.0025	58.11
FA4	4100K	1200	0.3727	0.3611	0.0064	0.0024	59.97
FA5	5000K	1200	0.3446	0.3551	0.0066	0.0024	62.80
FA6	6500K	1200	0.3127	0.3266	0.0066	0.0023	64.90

\*色坐标允许误差  $\pm 0.005$ ，色容差为 2 阶麦克亚当椭圆。

LEDTEEN maintains chromaticity (x, y)  $\pm 0.005$ , color region stay within MacAdam 2-step ellipse from the chromaticity center.

\*产品经标签宣称电流分色,若使用其他电流工作, 光色会发生变化。

The using current should be consistent with the label, and chromaticity will change if working current is outside this range of the label.

>7.特性曲线 Characteristic Curves

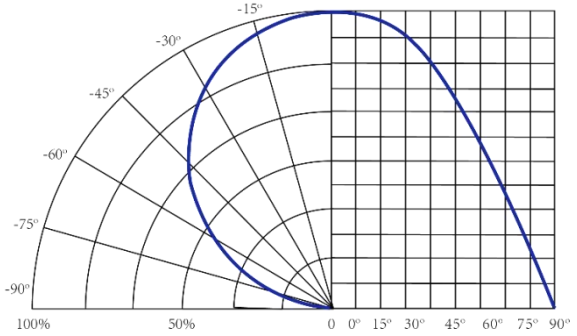
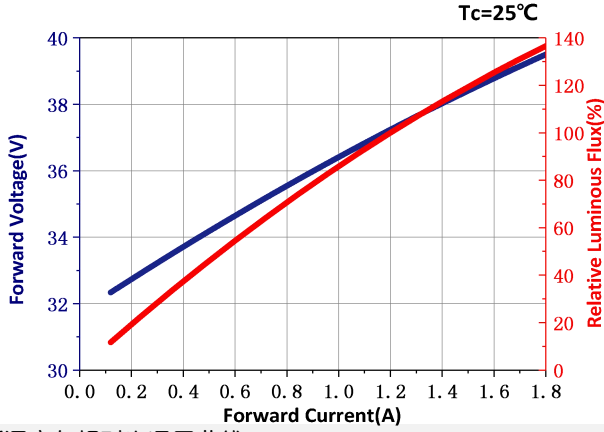
7-1.电流特性/辐射特性/温度特性 Forward Current Characteristics/Radiation Characteristics/Temperature Characteristics

电流与电压, 电流与相对光通量曲线图

Forward Voltage vs Forward Current (blue line),  
Relative Luminous Flux vs Forward Current (red line)

辐射角度

Radiation Angle

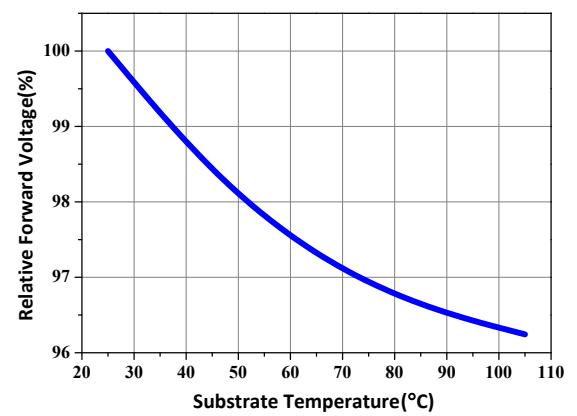
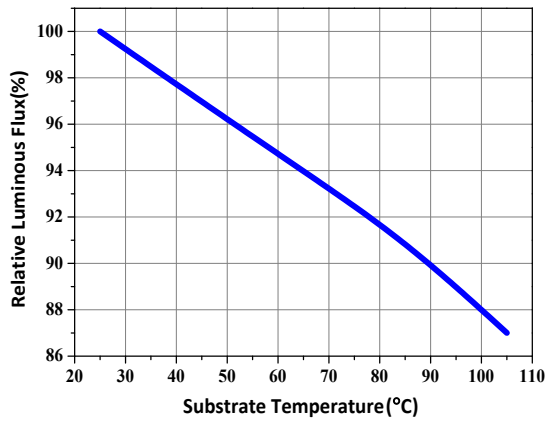


基板温度与相对光通量曲线

Relative Luminous Intensity vs Substrate Temperature If=1200mA

基板温度与电压曲线图

Forward Voltage vs Substrate Temperature If=1200mA



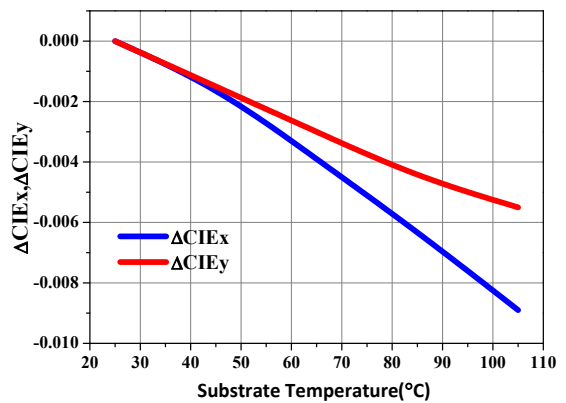
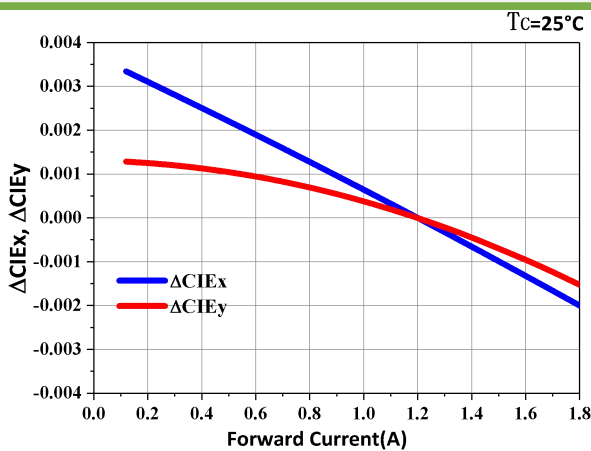
7-2.色漂移特性 Color Shift Characteristics

电流与 XY 坐标变化曲线图

$\Delta CIE x, \Delta CIE y$  vs Forward Current  
CRI(Ra)=80 Tc=25°C If=1200mA

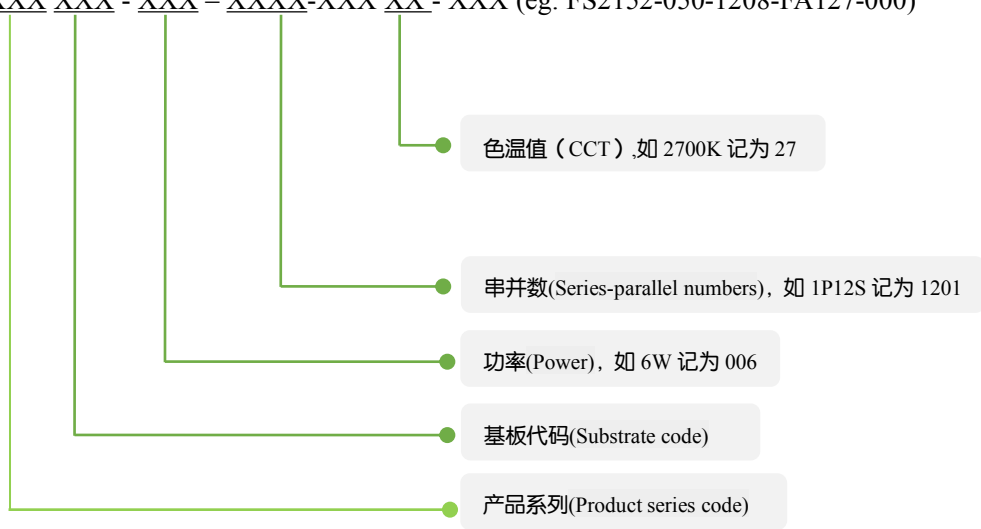
基板温度与 XY 坐标变化曲线图

$\Delta CIE x, \Delta CIE y$  vs Substrate Temperature  
CRI(Ra)=80 Tc=25°C If=1200mA



### >8.产品编码 Encoding



XXX XXX - XXX - XXXX-XXX XX - XXX (eg: FS2152-050-1208-FA127-000)



### >9.包装说明 Packing Specification

标签信息

Label information

 RoHS Qty: qty

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TYPE: 品名

PN: 客户品号

Des: 客户品名

If (mA): 电流 Vf (V): 电压 Pi (W): <空>

CCT (K): 色温  $\Phi$  (lm): 光通量 Ra: 显指

C009391510001 批号 C009391510001

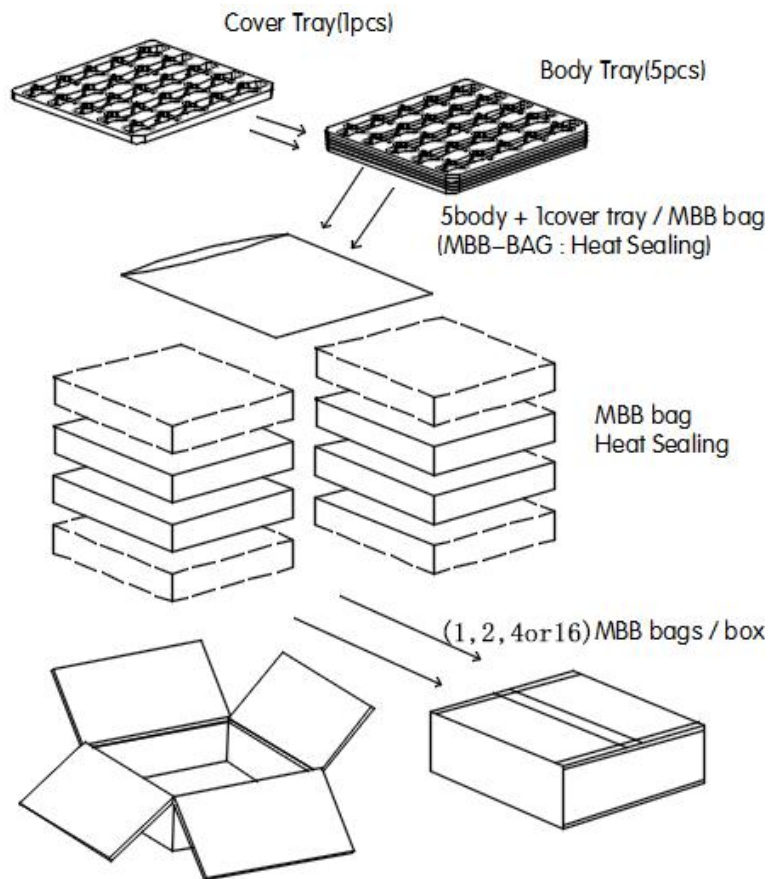
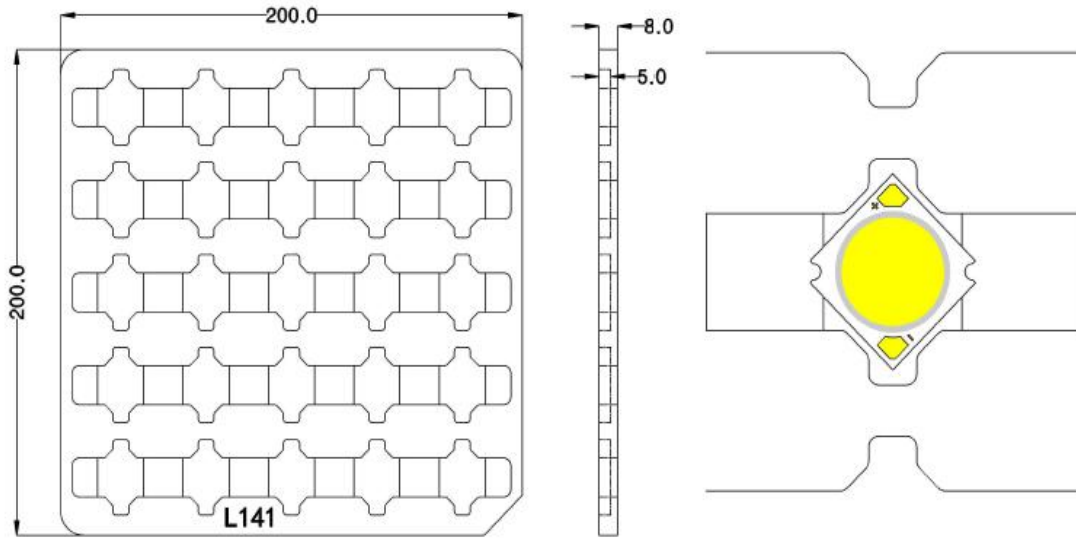
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包装方式

Manner of packing



\*每一个静电袋中含有 5 盘 COB 及 1 空盘顶盒，每盘有 25PCS COB。（最小包装数为 125PCS）

An empty tray is placed on top of a 5-tier tray which contain 25 PCS each.(Smallest packing unit:125 PCS)

\*标签会标识在空盘顶盒的外静电袋上，说明该静电袋中的 COB 产品名称，数量及批号。（托盘尺寸为：200\*200\*8 mm）

A label whit product name,quantity and lot number is placed on the upper empty tray.(Tray Dimension:200\*200\*8 mm)

## >10. 注意事项 Cautions

### 1. 储存条件 Storage

储存环境温度小于 60%，温度应保持在 20°C-30°C。

Store the parts in a dry, nitrogen-purged cabinet or container that actively maintains the temperature at 20°C-30°C and the RH at no greater than 60%.

### 2. 使用注意事项 Precautions for Use

正确使用防静电手环，防静电垫子，防静电工作服和工作鞋，手套和防静电容器，能有效的防止静电和电涌，注意烙铁点应正确接地。人手焊接：烙铁的温度必须不高于 350°C，一次焊接时间不超过 5 秒。

By using anti-static-electricity bracelets/ cushions/ overalls/ shoes/gloves and anti-static-electricity containers, it can effectively prevent static electricity and surge. The soldering iron point should be properly grounded. Use soldering by hand: Soldering bit temperature shall be 350°C or less, Heating time: 5 seconds or less.

### 3. 静电防护 ESD Protection

本产品对静电敏感，所以在使用本产品时必须采取有效的防护措施。尤其是静电产生的高压电流超过产品的最大额定值，会引起产品的损坏，或者可能使产品完全失效。客户使用产品时，应采取有效的防止静电和电涌的对应措施。接地电阻 $\leq 10\Omega$ 。

You need to take the protective measures for the product being sensitive to static electricity. It can lead to product damage or even the total invalid when the high voltage current made by static electricity is beyond the maximum rating. The ground resistance can't beyond  $10\Omega$ .

### 4. 清洁 Cleaning

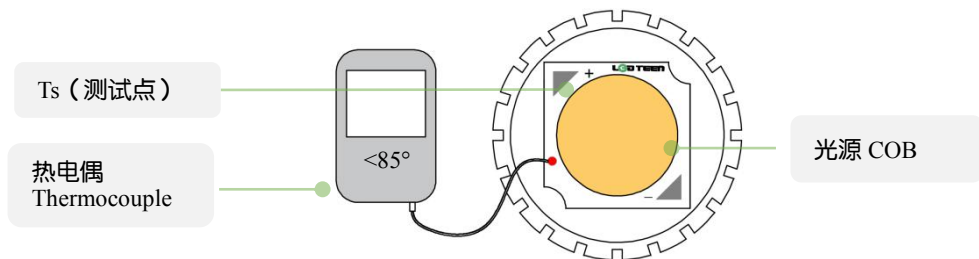
请不要让导热脂、油等接触到发光面，污垢可用气枪能去除。气枪压力：0.5MPa，时间：1~2 秒，距离：隔开 20cm 以上。

Please do not make the thermal grease, oil exposed to the light-emitting surface, air gun can be used to remove dirt. Guns Pressure: 0.5MPa, Time: 1 to 2 seconds, Distance: more than 20cm.

### 5. 过流保护 Overcurrent Protection

任何时候请勿按压胶体部分，以免产品表面不良甚至失效。建议在设计 PCB 时有接地电路。特别注意灯珠使用环境：湿度在 50%~80%之间，否则将会有静电击穿和大电流击死，温度在-10°C到 85°C使用。在使用本产品时，请注意参考规格书中的最大额定值和使用说明，如果没有遵照产品规格书中的最大额定值以及使用说明而产生的不良后果，不在硅能承诺范围之内。

Any time, don't press colloid part, lest product surface come to be damaged or even invalid. It is recommended to design PCB with ground circuit. Pay special attention to the use environment of the products: Humidity must be between 50% and 80%, or else electrostatic breakdown and overcurrent damage would occur. The use temperature is -10°C~85°C. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these data sheets. LEDTEEN assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the included in these data sheets.



## 6. 热设计 Thermal Design

LED 照明系统的良好运行取决于 LED 封装内部热阻、外部导热热阻、功率损耗和环境温度。

LED 结温过高将影响光通量和光源寿命。在散热设计时需充分的考虑这些因素。

The thermal design to draw heat away from the LED junction is most critical parameter for an LED illumination system. High operating temperatures at the LED junction adversely affect the performance of LED's light output and lifetime. Therefore the LED

junction temperature should not exceed the absolute maximum rating in LED illumination system.

### 7.安全提示 Safety Tips

在使用本产品的所有阶段，必须符合国家相关安全标准（如 GB7000.1-2007 等），对用户不遵守国家安全标准的行为，我司不承担任何责任。

During using this product, the country relative safety standards (eg. GB7000.1-2007) should be accorded with. We will not be liable for the users' acts of non-observance of the country safety standards.

\*温馨提示：为了保护环境，请将废弃光源按一般废弃物合规处理

Reminder: In order to protect the environment, please dispose the waste light according to the general waste

\*如对本规格书内容有异议，请在接收到规格书 7 日内书面形式向我司提出，否则视为默认接受本规格书之全部内容。

If you have any objection of this datasheet, please inform us in writing within 7 days, or it will be considered as accepting all the contents of this datasheet.