Features

- Package Size：2.8(L) ×3.5(W) ×0.8(T)mm
- Silicone Packed
- Suitable for different working environment
- Super long lifetime：50000HRs
- Anti UV
- White colors are available in(2300K- 25000K)
- Wide viewing angle (2θ 1/2 =120 °)

产品特征

- 封装尺寸：2.8(长) ×3.5(宽) ×0.8(高)mm
- 采用硅胶封装
- 适应多种工作环境
- 超长寿命：50000 小时
- 防紫外线
- 可供白光(2300K- 25000K)
- 宽角度（2θ 1/2 =120 °)

Applications

- Indoor lighting: Fluorescent lamp, tube
- Commercial illumination and displays: Advertising words, light box
- LCD Backlighting
- Decorative lighting: light strip
- Automotive interior auxiliary lighting
- Other illumination and displays

Device Selection Guide 物料选用指南

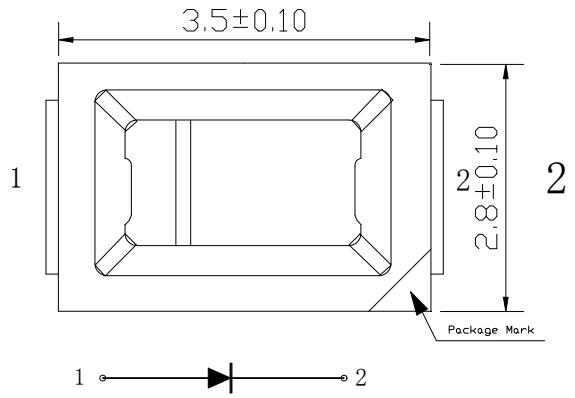
ITEM 项目	MATERIALS 物料
Resin 胶体	Silicon 硅胶
Bonding wire 焊线	25 Em Au
Lens color 胶体颜色	Water Clear 水清透明
Dice 晶片	InGaN

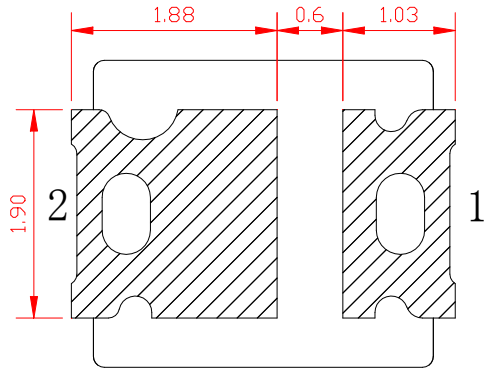
反射盖灌注型高效率发光二极管
REFLECTOR COATING TYPE HIGH-PERFORMANCE LEDs

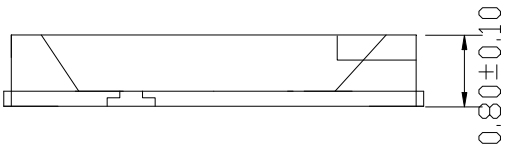
高性能 SMD 单色顶级 LED
High Performance SMD Single-Color Top LEDs

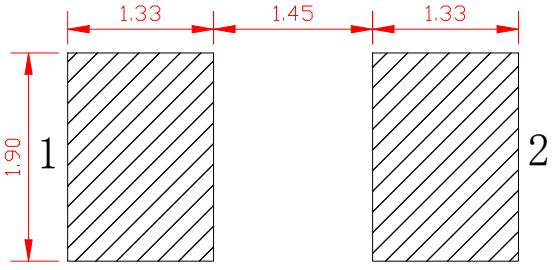
1.外形尺寸 Dimensions

单位(Units):毫米(mm)









焊盘图

注释 NOTES：

1、 所有的尺寸均以毫米(英寸)
All dimensions are in millimeters (inches)；

2、 公差是0.2 毫米(0.008 英寸),除非另有注明;
Tolerances are 0.2mm (0.008inch) unless otherwise noted

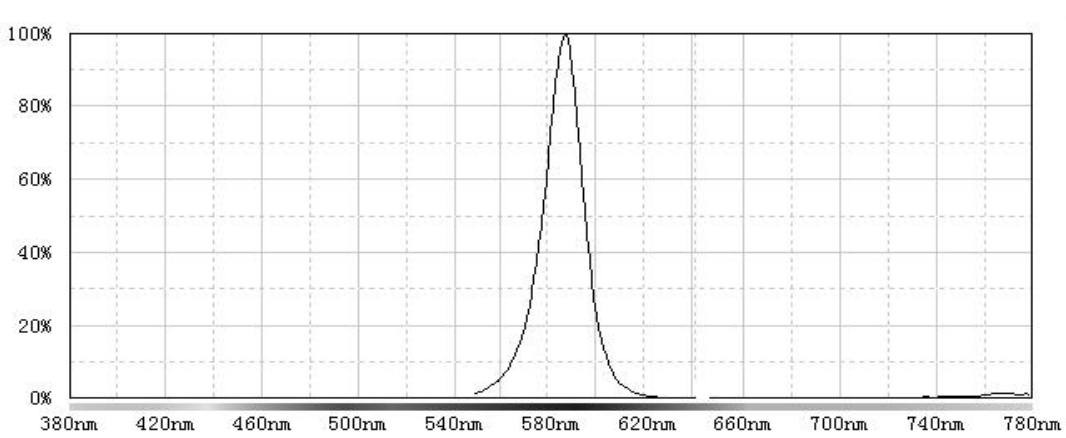
极限参数 Absolute maximum ratings (TA=25℃)

参数 Paramete	符号 Symbol	额定值 Rat	Unit (单位)
正向电流 Forward current	I F	60	mA
反向电压 Reverse voltage	VR	5	V
功耗 Power dissipation	Pd	0.2	W
工作温度 Operating Temperature	TOP	-20 ~+80	℃
储存温度 Storage Temperature	Tstg	-40 ~+80	℃
峰值正向电流 Peak Forward Current (Duty 1/10 @ 1KHz)	lFP	70	mA
焊接温度 Lead Soldering Temperature (5mm From Body)	TSOl	260℃ For 5 Seconds)/℃	

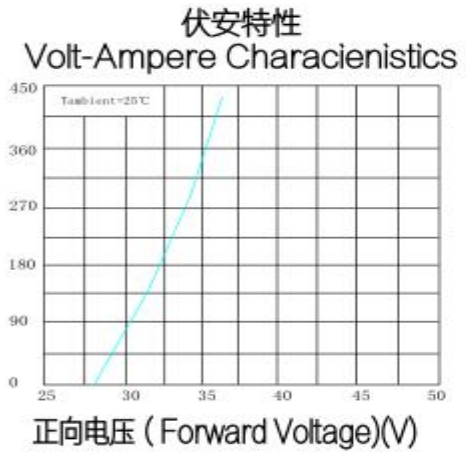
光电特性 Electro-optical characteristics (T A =25℃)

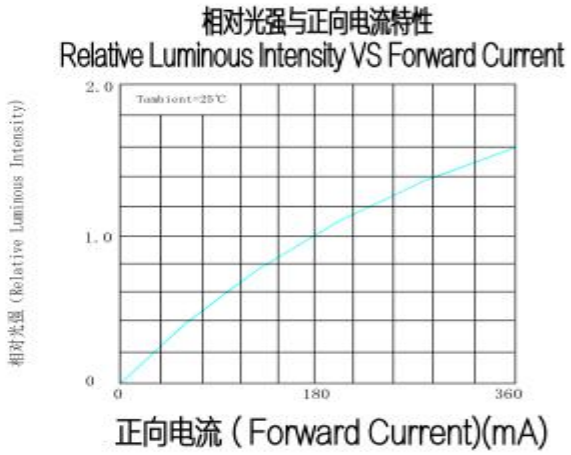
参数 Parameter	测试条件 Test Condition	符号 Symbo	数值 Value			单位 Unit
			Min	Avg	Max	
CIE 坐标 CIE Coordinates	I F =60mA	X				
		Y				
正向电压 Forward voltage	I F =60mA	Vf	1.8	2.0	2.2	V
波长 Wavelength	I F =60mA	nm	590	592	595	nm
光通量 Luminous Flux	I F =60mA	ϕ	4	5	6	Lm
发光强度 Luminous intensity	I F =60mA	Iv				mcd
角度 Viewing Angle	//////////	2θ1/2	////////	120	////////	deg
反向电流 Reverse Current	//////////	IR	////////	//////	10	EA

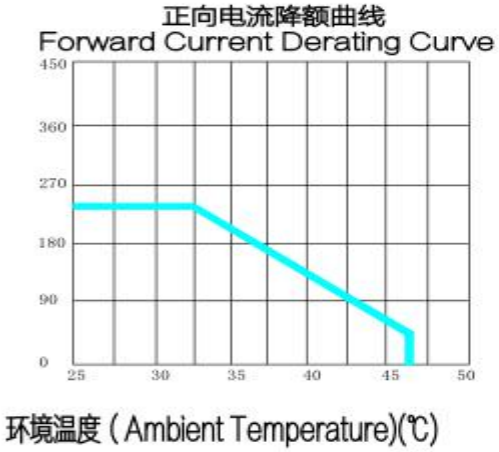
相对光谱功率

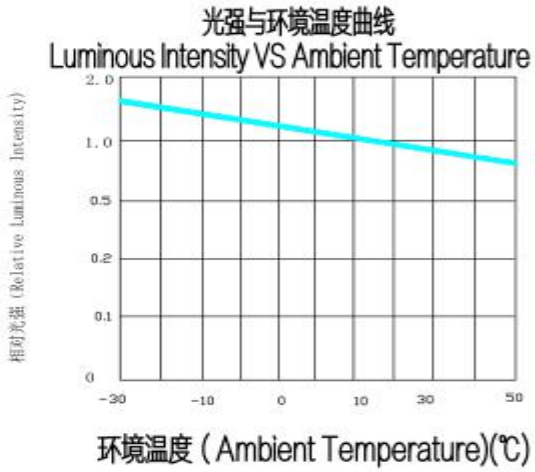


光电特性 （Optical-Electrical Characteristic）









可靠性实验 Reliability Test Items And Conditions

实验项目 Test Items	参考标准 Reference	实验条件 Test Conditions	时间 Time	样品数 Quantity	判据 Criterion
冷热冲击 Thermal Shock	MIL-STD-202G	-40℃（30min） -100℃（30min）	100 循环 100Cycles	22	0/22
湿热循环 Temperature	JEITA ED-4701 200 203	-10℃~65℃； 0%~90%RH	10 循环 10cycles	22	0/22
高温储存	JEITA ED -4071 200 201	Ta=100℃	1000H	22	0/22
低温储存	JEITA ED -4071 200 202	Ta=-40℃	1000H	22	0/22
高温高湿储存	JEITA ED -4071 100 103	Ta=60 ℃ ； RH=90%	1000H	22	0/22
高温寿命	JESD22-A108D	Ta=80℃	1000H	22	0/22
常温寿命试验	JESD22-A108D	Ta=25℃ IF=150mA	1000H	22	0/22
耐焊接热	GB/T 4937,Ⅱ， 2.2&2.3	Tsol*=(240±5)℃ 10secs	2 次 2 times	22	0/22

失效判断标准 Criteria For Judging Damage

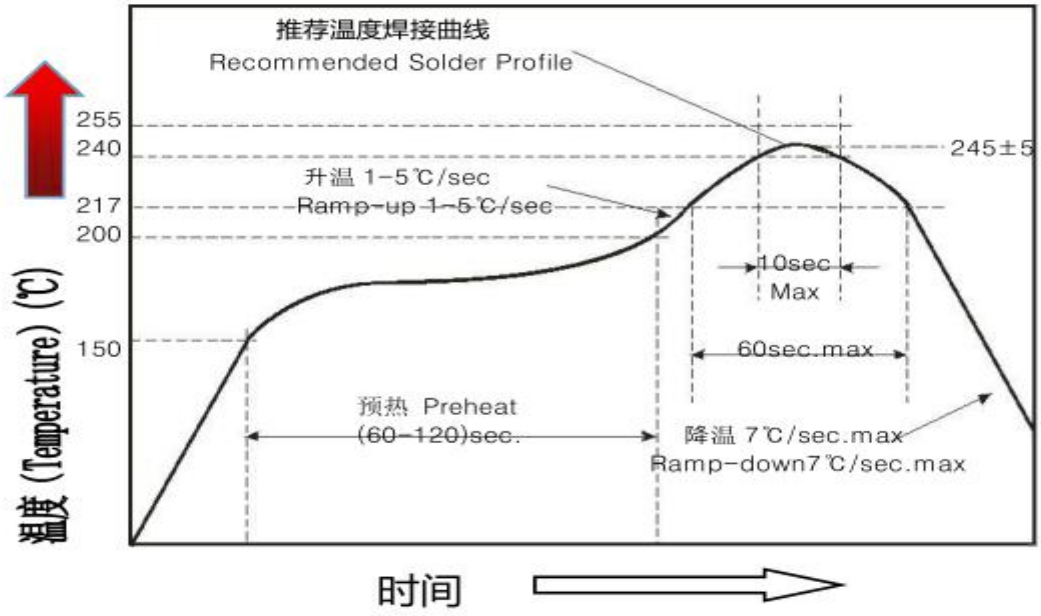
测试项目 Test Items	符号 Symbol	测试条件 Test Conditions	判定标准 Criteria For Judging Damage
正向电压 ForwardVoltage	V F	I F =I FT	初始值±10% Initial Data±10%
反向电流 RecerseCurrent	I R	V R =5V	I R ≤10uA
光强 LuminousIntensity	IV	I F =I FT	平均 I V 衰减≤30%；单个 I V 衰减≤50%
耐焊接热			材料内部无裂痕、无材料间爆裂、剥离、无死灯

*注：Tsol-锡液温度 *Note Tsol-Temperature of tin liquid

产品使用说明（Useful hint）：

1、使用烙铁人手焊接
Hand Soldering 推荐使用功率低于 20W 的烙铁，焊接时烙铁的温度必须保持在 360℃以下，且每个电极只能进行一次焊接，每次焊接的持续时间不得超过 3 秒。
人手焊接过程中不慎操作易硬气 LED 产品的损坏，应当小心谨慎。
A soldering iron of less than 20W is recommended to be used in Hand Soldering.Please keepthe temperature fo the soldering iron under 360℃ while soldering.Each terminal fo the LED is to go for less than 3 second and for one time only.
Be careful because the damage of the product is often started at the time of the hand soldering.

2.回流焊接：推荐使用以下无铅回流焊接温度图进行。
Reflow Soldering:Use the conditions shown in the under Figure of Pb-Free Reflow Soldering



● 回流焊只允许做一次。
Reflow soldering only allowed to do once
● 在回流焊升温过程中，请不要对 LED 施加任何压力。
Stress on the LEDs should be avoided during heating in soldering process
● 在焊接完成后，待产品温度下降到室温之后，再进行其它处理。
After soldering,do not deal with the product before its temperature drop down to room Temperature.

使用注意事项(1)
Precautions(1)

1. 贮存：
Storage
●本产品使用密封防潮抗静电袋包装，并附有干燥剂，未开封的产品有一年的保存时间。
Moisture proof and anti-electrostatic package with moisture absorbent material is used, to keep moisture to aminimum.
●开封前，产品须存放在温度不高于 30℃，湿度不高于 60%RH 的环境中。
Before opening the package, the product should be kept at 30℃ or less and humidity less than 60% RH, and beused within a year.
●开封后，产品须存放在温度不高于 30℃，湿度不高于 10%RH 的环境中，且应该在 24 小时（1 天）内使用完。建议工作环境为温度不高于 30℃，湿度不高于 60%RH。
After opening the package, the product should be stored at 30℃ or less and humidity less than 10%RH, and besoldered within 24 hours (1day). It is recommended that the product be operated at the workshop condition of 30℃ or less and humidity less than 60%RH.

●对于尚未焊接的 LED，如果吸湿剂或包装失效，或者产品没有符合以上有效存储条件，烘焙可以起到一定的性能恢复效果。烘焙条件：（70±5）℃，持续 24 小时。
If the moisture absorbent material has fade away or the LEDs have exceeded the storage time, baking treatment should be performed based on the following condition: (70±5)℃ for 24 hours

2. 静电：
Static Electricity
静电和电涌会导致产品特性发生改变，例如正向电压降低等，如果情况严重甚至会损毁产品。所以在使用时必须采取有效的防静电措施。
所有相关的设备和机器都应该正确接地，同时必须采取其他防止静电和电涌的措施。
使用防静电手环，防静电垫子，防静电工作服、工作鞋、手套，防静电容器，都是有效的防止静电和电涌的措施。
Static electricity or surge voltage damages the LEDs. Damaged LEDs will show some unusual characteristic such as the forward voltage becomes lower, or the LEDs do not light at the low current. even not light.
All devices, equipment and machinery must be properly grounded. At the same time, it is recommended that wrist bands or anti-electrostatic gloves, anti-electrostatic containers be used when dealing with the LEDs.

使用注意事项（2）
Precautions (2)

3. 硫化：
Vulcanization
LED 硫化是由于环境中的硫进入支架内部与+1 价的银发生化学反应生成黑色 Ag 2 S 的过程。该过程会导致支架镀银层的反光能力下降，色温漂移和光衰严重，很大程度上影响了产品性能。因此，在使用时应注意采取相应的防硫措施，如避免使用挥发性强的含硫物质，避免接触含硫较高的物质。
LED curing is due to sulfur being in bracket and the +1 price of silver in the chemical reaction generated Ag2S in the process. It will lead to the capacity of reflecting of silver layer reducing, light color temperature drift and serious decline ,seriously affecting the performance of the product.So we should take corresponding measures to avioding vulcanization, such as to avoid using sulphur volatile substances and keeping away from high sulphur content of the material.

4. 眼睛保护忠告：
Safety Advice For Human Eyes
LED 发光时，请勿直视发光光源，特别是对于一些光强较高的 LED，强光可能伤害你的眼睛。
Viewing direct to the light emitting center of the LEDs, especially those of great Luminous Intensity will cause great hazard to human eyes. Please be careful.