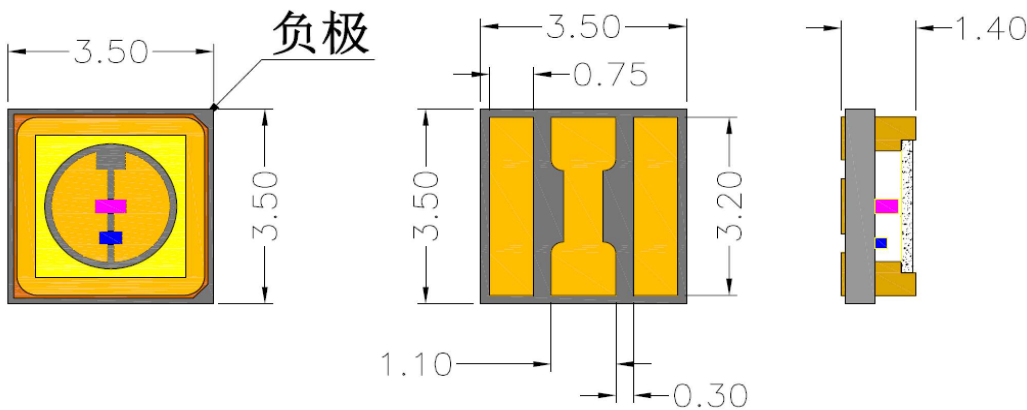


1、产品描述/ Features

- 峰值波长：250.0-315.0纳米/Lighting Color(Peak Wavelength): 250.0-315.0nm
- 外形尺寸：3.5 × 3.5 × 1.4 (长 × 宽 × 高) [单位: 毫米]
Surface Mount Type LED Package: 3.5 × 3.5 × 1.4 (L × D × H) [Unit: mm]
- 发光角度：120度/View angle (2Θ1/2=120deg)
- 消毒、荧光光谱、传感灯等等/Disinfection, Fluorescent Spectroscopy, Sensor Light, etc.



2、外形尺寸/ Package Profile



/ Notes: 1. 单位：毫米（mm） / All dimensions are in millimeters
2. 公差：如无特别标注则为± 0.1 mm Tolerance is ± 0.10 mm unless otherwise noted

3、最大绝对额定值/ Absolute Maximum Ratings （Ta=25℃）

参数 Parameter	符号 Symbol	参数值 value			单位 Unit
		最小值 min	均值 type	最大值 max	
正向电流 Forward Current	I _F	-	40	-	毫安（mA）
电功率 Power Dissipation	P _D	-	0.2	-	瓦（W）
工作温度 Operating Temperature	T _{OPR}	-30		60	摄氏度（℃）
存储温度 Storage Temperature	T _{STG}	-40		95	摄氏度（℃）



4、光电参数/ Electrical Optical Characteristics （Ta=25℃）

[I_F = 40mA]

参数 Parameter	符号 Symbol	单位 Unit	最小值 Min.	均值 Typ.	最大值 Max.
峰值波长 Peak Wavelength ^[1]	λ _p	nm	250	—	320
辐射通量 Radiant Flux ^[2]	Φ _e	mW	4	6	12
正向电压 Forward Voltage ^[3]	V _F	V	5	—	6.4
半波宽 Spectrum Half Width	Δλ	nm	9	11	14
发光角度 View Angle	2θ _½	°		120	
热阻 Thermal Resistance	RJ-b	℃/W		60	

备注1 （Note1）

[1] 峰值波长公差±3.5纳米 （ Peak Wavelength Tolerance ± 3.5nm）

[2] 辐射通量测量公差±10% （ Radiant Flux Measurement tolerance ±10%）

[3] 正向电压公差为±10% （Forward Voltage Tolerance ± 10%）

[4] RJ-b是从芯片焊盘到支架的热电阻 （RJ-b is thermal resistance from junction to case.）

4-1、Bin Structure

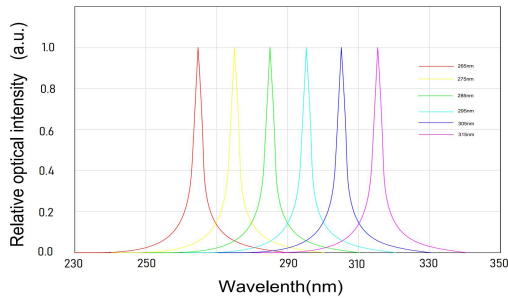
[Ta =25℃, I_F =40mA]

命名 Designate	参数 Information	代码 Code	最小值 Min.	均值 Typ.	最大值 Max.
HUE	峰值波长 Peak Wavelength	255	250	—	260
		265	260	—	270
		275	270	—	280
		295	290	—	300
		310	305	—	315
CAT	辐射通量 Radiant Flux (Φ _e)	A40	4	—	6
		B60	6	—	8
		C80	8	—	10
		D100	10	—	12

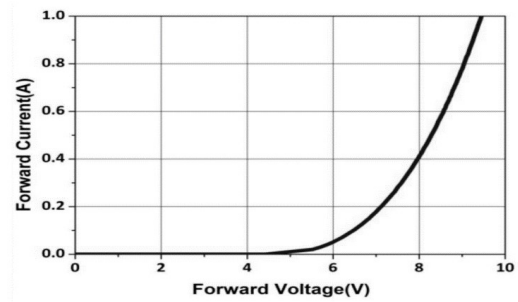
典型值 Main Ranks

5、光电参数代表值特征曲线/ Typical Electrical-Optical Characteristics Curves:

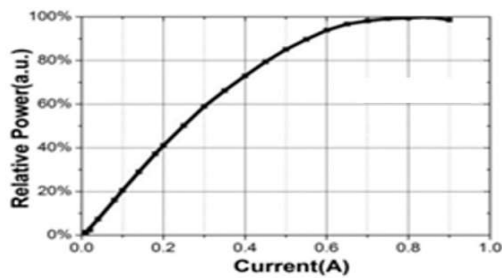
(1) 相对光谱分布Relative spectral distribution



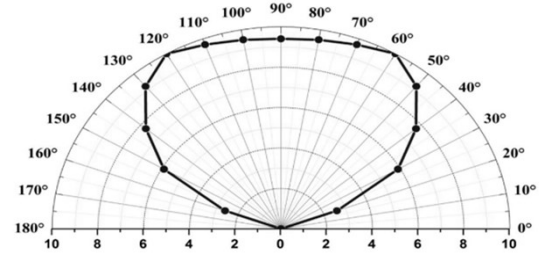
(2) I-V特性 I-V Characteristic



(3) 辐射强度VS电流 Radiated power VS current



(4) 典型配光曲线 Typical light distribution curve



6、标签及标识/ Label Explanation:

CAT: 辐射强度/Radiant Intensity Rank

HUE: 波长/ CIE 1931 Coordinate Rank

REF: 电压/ Forward Voltage Rank



7、信赖度测试/ Reliability Test:

试验项目 Test Item	试验条件 Test Conditions	试验时间 Test Time	样品数量 Sample Q' ty
室温及工作寿命 Room Temperature Operating Life1	Ta=25℃，If=40mA	1200hrs	15 Pcs
室温及工作寿命 Room Temperature Operating Life2	Ta=25℃，If=40mA	1200hrs	15 Pcs
高温及工作寿命 HighTemperature Operating Life	Ta=60℃，If=40mA	1200hrs	15 Pcs
低温及工作寿命 Low Temperature Operating Life	Ta=40℃，If=40mA	1200hrs	15 Pcs
高温及存储寿命 HighTemperature Operating Life	Ta=95℃	1200hrs	15 Pcs
低温及存储寿命 Low Temperature Operating Life	Ta=-40℃	1200hrs	15 Pcs
热冲击 Thermal Shock	Ta max=120℃，Ta min=-40℃ 30min dwell/transfer time: 10sec. 1 cycle = 1 hour	200 cycle	15 Pcs

失效判定标准 Criteria For Judging Damage

参数 Parameter	符号 Symbol	条件 Condition	判定标准 Criteria for Judgement	
			Min.	Max.
正向电压 Forward Voltage	VF	IF=40mA		H. S. R. . (1) *1.1
辐射功率 Radiometric Power	IV	IF=40mA	H. S. L (1) *0.5	

[1] H.S.R: 规格上限 Upper Specification Level

[2] H.S.L: 规格下限 Lower Specification Level

备注/ Note:
信赖性测试基于现有的测试平台
The Reliability tests are based on existing test platform.

8、注意事项/ Cautions :

使用/ Application :

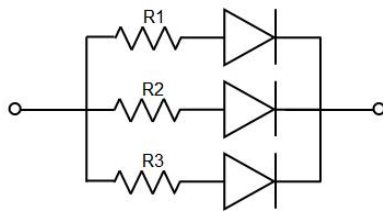
1. LED 是电流驱动元件, 电压的细微变化会产生较大的电流波动, 导致元件遭到破坏。客户应使用电阻串联作限流保护。

A LED is a current-operated device. The slight shift of voltage will cause big change of current, which will damage LEDs. Customer should use resistors in series for the Over-Current-Proof

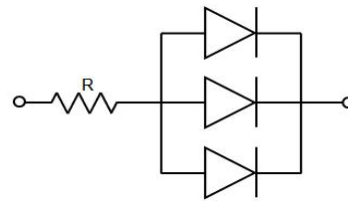
2. 为了确保多颗 LED 并联使用时光色一致, 建议每条支路使用单独电阻, 如下图模式 A 所示;

如采用下图模式 B 所示电路, LED 光色可能因每一颗 LED 不同的伏安特性而造成光色差异。

In order to ensure intensity uniformity on multiple LEDs connected in parallel in an application, it is recommended to use individual resistor separately, as shown in Circuit A below. The brightness of each LED shown in Circuit B might appear difference due to the differences in the I-V characteristics of those LEDs.



电路模式/ Circuit model A



电路模式/ Circuit model B

3. 过高的环境温度会影响 LED 的亮度以及其他性能, 所以为能使 LED 有较好的性能表现应远离热源

High temperature may reduce LEDs' intensity and other performances, so keeping it away from heat source to get good performance is necessary.

4. 光电参数公差/ Rank Tolerance :

正向电压 REF / VF : $\pm 0.05V$

亮度 CAT / IV : $\pm 10\%$

色度坐标 X / Y : ± 0.005

存储/ Storage :

1. 未打开原始包装的情况下, 建议储存的环境为: 温度: $5^{\circ}C \sim 30^{\circ}C$; 湿度: 85%RH 以下。当库存超过两个月, 使用前应做除湿处理, 条件 $60^{\circ}C/8$ 小时。

Before opening original package, it is recommended to store them in the following environment:

Temperature: 5°C~30°C, Humidity: 85%RH max. When the inventory over 3 months, Should be done before treatment using dehumidification, Temperature: 60°C/8 hours.

2. 打开原始包装后，建议储存环境为： 温度 5~30° C ； 湿度 60% 以下。

After opening original package, the storage ambient for the LEDs should be in 5~30°C temperature and 60% or less relative humidity

3. LED 是湿度敏感元件，为避免元件吸湿，建议打开包装后，将其储存在有干燥剂的密闭容器内，或者储存在氮气防潮柜内。

In order to avoid moisture absorption, it is recommended that the LEDs that out of the original package should be stored in a sealed container with appropriate desiccant, or in desiccators with nitrogen ambient.

4. 打开包装后，元件应该在 24 小时（1 天）使用；且贴片后应尽快做焊接。

The LEDs should be used within 24hrs (1days) after opening the package. Once been mounted, soldering should be quick.

5. 如果干燥剂失效或者元件暴露于空气中超过 24 小时（1 天），应作除湿处理。烘烤条件：60°C ， 24 小时。

If the moisture absorbent material (silica gel) has faded away or the LEDs stored out of original package for more than 24hrs (1 days), baking treatment should be performed using the conditions: 60°C at least 24 hours.

ESD 静电防护/ ESD (Electrostatic Discharge)-Protection

LED（特别是 InGaN 结构的蓝色、翠绿色、紫色、白色、粉红色 LED）是静电敏感元件，静电或者电流过载会。LED 结构。LED 受到静电伤害或电流过载可能会导致性能异常，比如漏电流过大, VF 变低, 或者无法点亮等等。所以请注意以下事项：

A LED (especially the Blue、White and Green product) is an ESD sensitive component, and static electricity or power surge will damage the LED. ESD-damaged LEDs will exhibit abnormal characteristics such as high reverse leakage current, low forward voltage, or “no light-up” at low currents, etc. Some advice as below should be noticed:

1. 接触 LED 时应佩戴防静电腕带或者防静电手套。

A conductive wrist strap or anti-electrostatic glove should be worn when handling these LEDs

2. 所有的机器设备、工夹具、工作桌、料架等等，应该做适当的接地保护（接地阻抗值 10 Ω 以内）。

All devices, equipment, machinery, work tables and storage racks, etc. must be properly grounded（Grounding impedance value within 10Ω）

3. 储存或搬运 LED 应使用防静电料袋、防静电盒以及防静电周转箱，严禁使用普通塑料制品。

Use anti-static package or boxes to carry and storage LEDs. And ordinary plastic package or boxes is forbidden to use.

4. 建议在作业过程中，使用离子风扇来压制静电的产生。

Use ionizer to neutralize the static charge during handling or operating.

5. 距离 LED 元件 1 英尺距离的环境范围内静电场电压小于 100V。

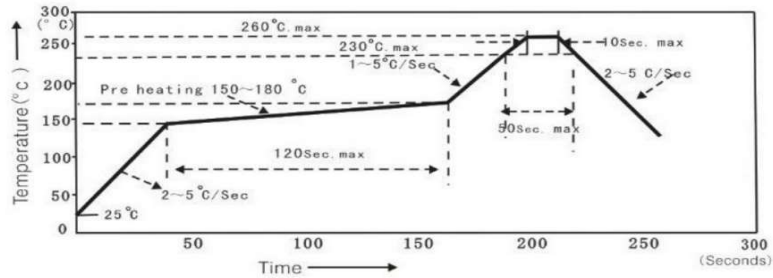
All surfaces and objects within 1 ft close to LEDs measure less than 100V.

清洗/ Cleaning

建议使用异丙醇等醇类溶液清洗 LED，严禁使用腐蚀性溶液清洗。

Use alcohol-based cleaning solvents such as IPA (isopropyl alcohol) to clean LEDs if necessary

建议焊接温度曲线 / Soldering Profile Suggested



其他 / Others

1. 本规格所描述的 LED 定义应用在普通的电子设备范围（例如办公设备、通讯设备等等）。如果有更为严苛的信赖度要求，特别是当元件失效或故障时可能会直接危害到生命和健康时（如航天、运输、交通、医疗器械、安全保护等等），请事先知会敝司业务人员。

The LEDs described here are intended to be used for ordinary electronic equipment (such as office equipment, communication equipment and household applications). Consult Sales in advance for the applications in which exceptional reliability is required, particularly when the failure or malfunction of the LEDs may directly jeopardize life or health. (such as in aviation, transportation, traffic control equipment, medical and life support systems and safety devices).

2. 高亮度 LED 产品点亮时可能会对人眼造成伤害，应避免从正上方直视。

The light output from the high luminous intensity LEDs may cause injury to human eyes when viewed directly.

3. 出于持续改善的目的，产品外观和参数规格可能会在没有预先通知的情况下作改良性变化。

The appearance and specifications of the product may be modified for improvement without prior notice.