



苏州群力欣光电科技有限公司

Suzhou Que-lesion Optoelectronic Technology co.,Ltd

产品规格书

SPECIFICATION

产品名称 Product Name	QLX0805S-D01R12V08E-T1				
产品料号 Product Number	F002BQ	规格书编号 SPEC NO.	20170404001	日期 Date	2017.04.04
客户料号 Customer Number		客户名称 Customer Name			
客户确认 Chuck By		客户核准并 签章 Authorized By		客户产品要 求范围 Application Range	

制定(DRAW): _____ 审核(CHECK): _____ 批准 (APPROVE) :

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特征 Features

- ❖ 宽的发光角度
Extremely wide viewing angle
- ❖ 适合所有 SMT 组装和焊接过程
Suitable for all SMT assembly and solder process
- ❖ 可用在载带及卷轴上
Available on tape and reel
- ❖ 防潮等级:3 级
Moisture sensitivity level: Level 3
- ❖ 包装:3000pcs/卷
Package:3000pcs/reel
- ❖ 符合欧盟 RoHS 标准
RoHS compliant

描述 Description

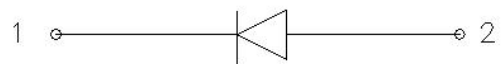
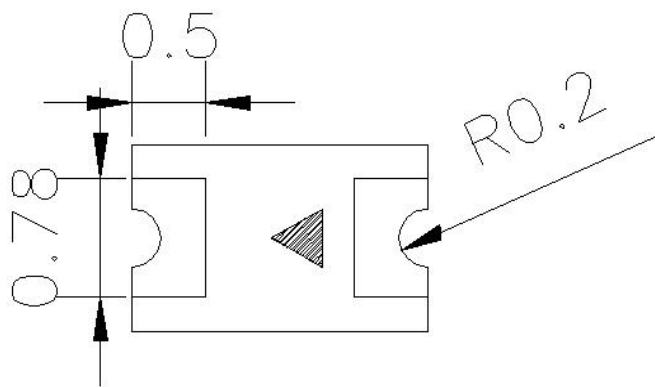
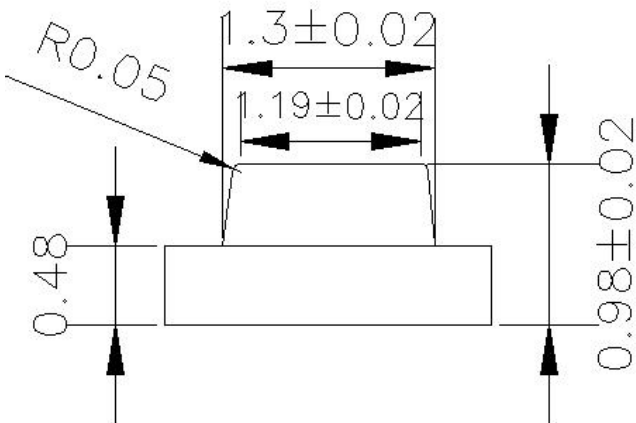
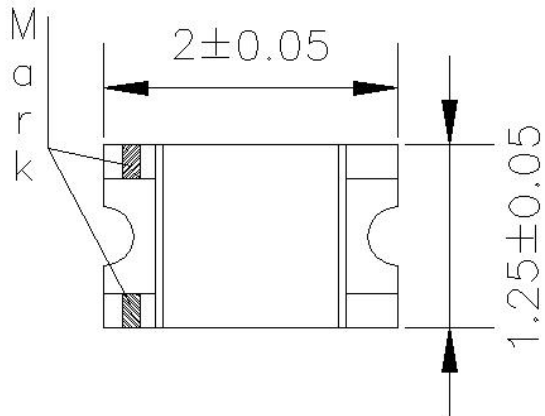
红光 LED 由 AlGaInp 四种元素芯片激发而成

The red source color devices are made with AlGaInp on Substrate Light Emitting Diode

应用 (Applications)

- ❖ 光学指示
Optical indicator
- ❖ 室内显示
Indoor display
- ❖ 汽车照明
Automotive lighting
- ❖ LCD 背光、转换器, 开关和标志, 显示器等
Backlight for LCD , switch and symbol , display
- ❖ 用于日光灯管
Tubular light application
- ❖ 一般应用
General use

❖ 外观尺寸 Appearance size



❖ NOTES:

All dimensions units are millimeters.(所有尺寸标注单位为毫米)



光电参数 Electro-Optical Characteristics

❖ 极限参数 (温度=25℃) Absolute Maximum Ratings(Temperaure=25℃)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
功耗 Power Dissipation	Pd	60	mW
正向电流 Forward Current	IF	30	mA
峰值正向电流 Peak Forward Current	IFP	100	mA
反向电压 Reverse Voltage	VR	5	V
工作温度 Operating Temperature	Topr	-30~+85	℃
储存温度 Storage Temperature	Tstg	-40~+100	℃

❖ 光电参数 (温度=25℃) Electro-Optical Characteristics (Temperaure=25℃)

参数名称 Parameter	符号 Symbol	条件 Condition	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
反向电流 Reverse Current	IR	VR=5V			10	μA
正向电压 Forward Voltage	VF	IF=20mA	1.8	2.0	2.2	V
主波长 Dominant wavelength	Wd		620	625	630	nm
光强 Luminous Intensity	IV		120		250	mcd
角度 View Angle	2θ _{1/2}			140		deg



❖ 参数范围 Parameter norm

1.) 正向电压 Forward Voltage Bins (IF=20mA)

VF(v)		
Bin Code	Min	Max
A12	1.8	2.0
A13	2.0	2.2

2.) 光强 Luminous Intensity Bins (IF=20mA)

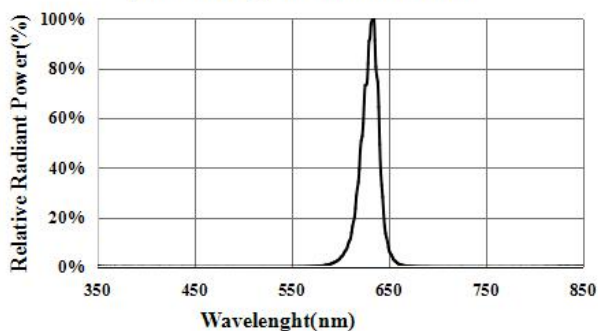
Iv(mcd)		
Bin Code	Min	Max
D19	120	150
D20	150	200
D21	200	250

3.) 主波长 Dominant wavelength (IF=20mA)

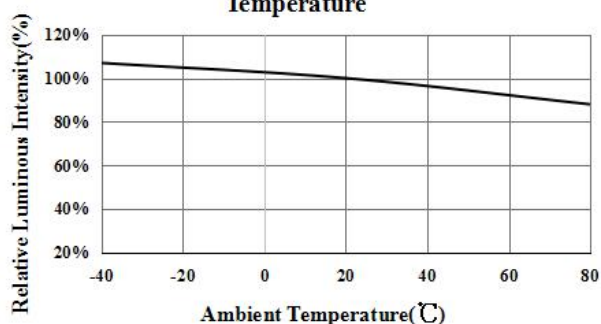
Wd(nm)		
Bin Code	Min	Max
R1	620	625
R2	625	630

❖ 光学特性 Electronic-optical Characteristics

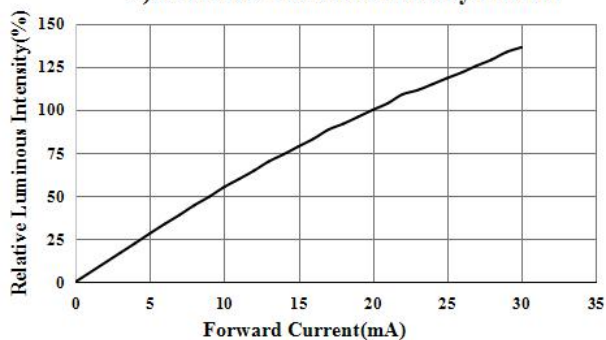
1).Relative Spectral Distribution



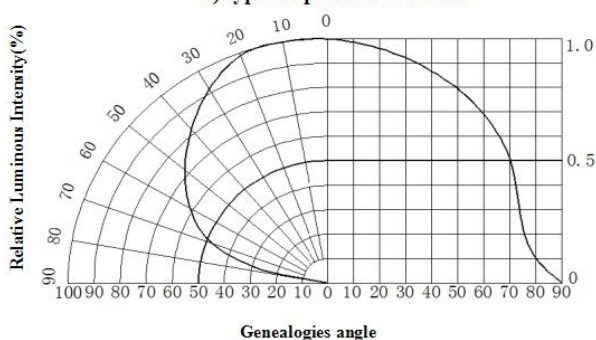
2).Relative Luminous Intensity.Ambient Temperature



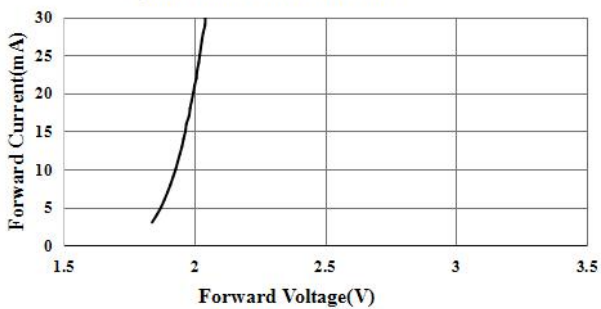
3).Relative Luminous Intensity.Current



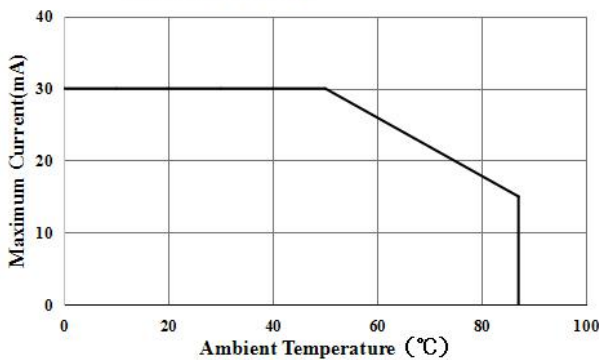
4.)Typical Spatial Distribution



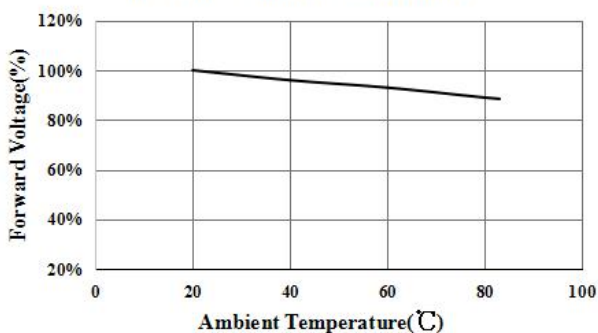
5).Electrcal Characteristics



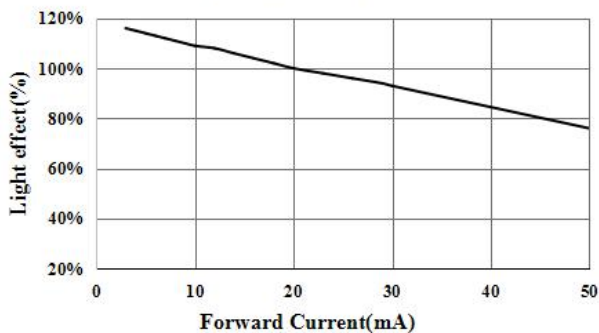
6).Thermal Design



7).Forward Voltage Temperature



8).Light effect VS Current





❖ 测试项目和可靠性的结果 Test Items and Results of Reliability

试验项目 Test Items	试验条件 Test Conditions	时间 Time	试验数量 Quantity	接收/拒收 Accepted/Rejected
回流焊 Reflow	Temp: 260°Cmax T=10sec	2times	22Pcs	0/1
温度循环 Temperature Cycle	100°C/30min ↓↑ - 40°C/30min	100cycles	22Pcs	0/1
冷热冲击 Thermal Shock	- 40°C/15min ↓↑ 100°C/15min	300cycles	22Pcs	0/1
高温保存 High Temperature Storage	Temp: 100°C	1000Hrs.	22Pcs	0/1
低温保存 Low Temperature Storage	Temp: - 40°C	1000Hrs.	22Pcs	0/1
常温通电 Life Test	Ta=25°C IF=20mA	1000Hrs.	22Pcs	0/1

项目 Test Items	符号 Symbol	测试条件 Test Condition	判定标准 Judging For Damage	
			最小 Min.	最大 Max.
正向电压 Forward Voltage	VF	IF=20mA	-	L.S.L*)x1.1
漏电流 Reverse Current	Ir	Vr=5V	-	L.S.L*)x2.0
光通量 Luminous Flux	lm	IF=20mA	L.S.L*)x0.7	-

备注 Note:

Tsol-锡液温度; I_{FT}:典型电流 Tsol –Temperature of tin liquid ; I_{FT}:Typical current

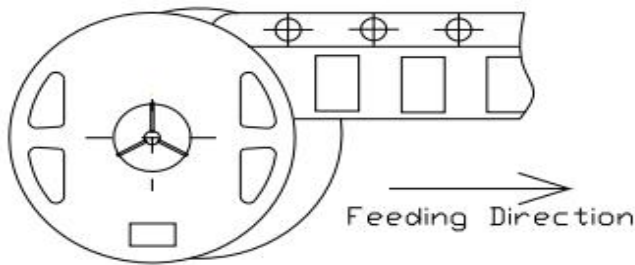
❖ 包装 Packaging

标签 Label

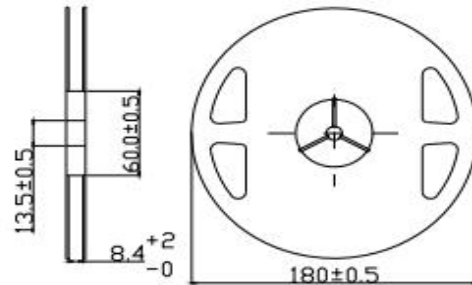
料号 Part No.:*** 批号 Lot No.:*** 数量 O'ty(pcs):***
 亮度 Iv(mcd):*** 波长 (nm) :*** 电压 VF (v) :***
 日期 Date:***

◆ Packing

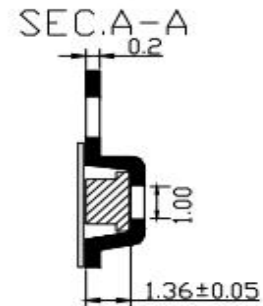
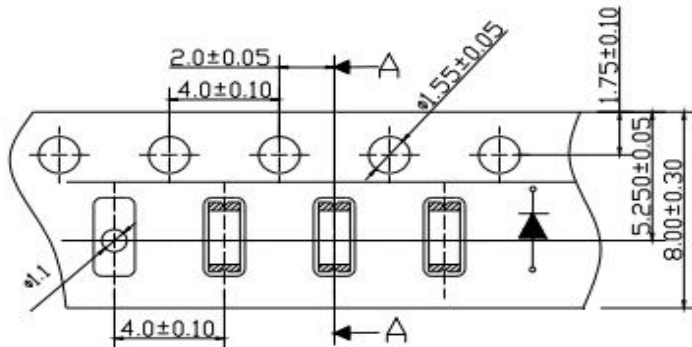
• Feeding Direction (Unit: mm)



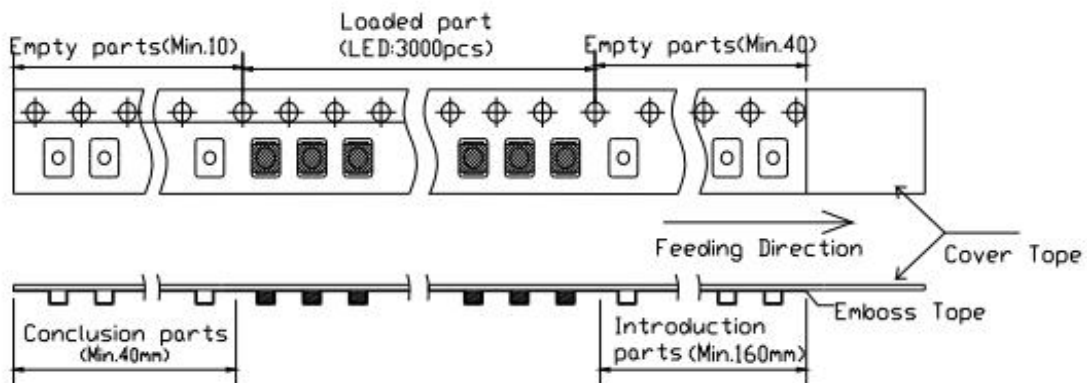
• Dimensions of Reel (Unit: mm)



• Dimensions of Tape (Unit: mm)



•Arrangement of Tap



备注：标注公差为±0.1mm,单位：mm

Note : The tolerances unless mentioned is ±0.1mm,Unit:mm

❖ 焊接指导 Guideline for Soldering

烙铁焊接 Soldering iron

1.当手工焊接时，烙铁的温度必须小于 300℃，时间不可超过 3 秒；

When hand soldering, keep the temperature of iron below less 300℃ less than 3 seconds;

2.手工焊接只可焊接一次；

The hand solder should be done only one times;

3.不可将模组材料堆积在一起，它可能会损坏内部电路；

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

4.不可用在 PH<7 的酸性场所；

Not suitable to operate in acidic environment,PH<7;

修补 Repairing

LED 回流焊后不应该修复，当修复是不可避免时，必须使用双头烙铁，但必须事先确认此种方式会或不会损坏 LED 本身的特性。

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed in advance whether the characteristics of LEDs will or will not be damaged by repairing.

注意事项 Cautions

LED 封装为硅胶，故 LED 胶体表面较软，用力按压胶体表面会影响 LED 可靠性，因此应有预防措施避免在封装的零件上的强大压力。当使用吸嘴时，胶体表面的压力应是恰当的。

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.

