

# JZL-SY937C-I0P-F

## DATA SHEET

### 规格书

DOCUMENT NO.: WI-RD-LDS-SY937C-I0P-F  
文件编号

RELEASE DATE: 2008-02-25  
制作日期

VERSION: A/1  
版次



#### Revised record 「变更记录」

No	Description 修改内容	Reviser 修改者	Edition 版次	Date 修改日期
1	填加分 Bin 范围	龙渊	A/1	2008-02-25
2				

**PART NO. 「产品型号」: JZL-SY937C-I0P-F**

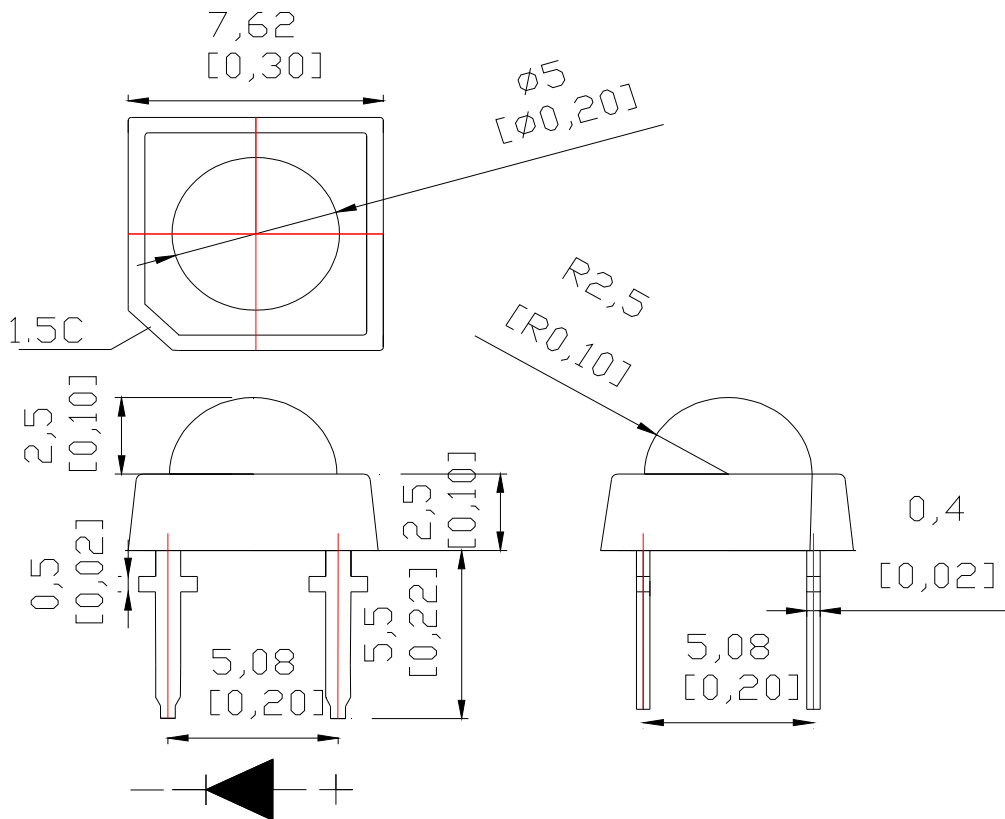
**Features 「描述」:**

- 5mm Super Fluxlamp      5 毫米食人鱼二极管
- Lens color: Water Clear      外观胶色: 无色透明
- Emitting color: Yellow      发光颜色: 黄光
- viewing angle: 90°      发光角度: 90°
- Leads with stand-offs: YES      引脚有无卡位: 有
- RoHS compliant      符合 RoHS 标准

**Application 「应用」:**

- Indicator      指示器
- Decoration      装饰
- Others 其它

**Package Dimensions 「产品外观尺寸」**



**Notes 「备注」:**

1. All dimension are in millimeters and(Inch)tolerance is  $\pm 0.25$ mm unless otherwise noted.  
所有尺寸以毫米或英寸为单位, 未注明的公差为  $\pm 0.25$ mm。
2. Specifications are subject to change without notice.  
规格修改恕不提前通知。

**PART NO 「产品型号」.: JZL-SY937C-I0P-F**

**Absolute Maximum Rating at Ta=25°C**

「在 25°C 环境下最大额定值」

Power Dissipation	最大功耗	70	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	正向峰值电流	120	mA
Forward Current	正向电流	25	mA
Operating Temperature Range	工作温度	-30°C to +85°C	
Storage Temperature Range	储存温度	-40°C to +100°C	
Lead Soldering Temperature 3mm From Body	焊接温度	260°C for 3 Seconds	

**Electrical /Optical Characteristics at Ta=25°C**

「在 25°C 环境下电性/光学特性」

Description 描述	Symbol 符号	Conditions 条件	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位
Forward Voltage 正向电压	VF	IF=20mA	1.8	2.0	2.4	V
Reverse Current 反向电流	IR	VR=5V	/	/	10	μA
Dominant Wavelength 主波长	λD	IF=20mA	/	592	/	nm
Luminous Intensity 发光亮度	Iv	IF=20mA	/	450	/	mcd
Half V-angle 发光角度	2θ1/2	IF=20mA	/	90	/	deg

或椭圆用如下角度标示。

Half V-angle 发光角度	2θ1/2H-H	IF=20mA	/	/	/	deg
	2θ1/2V-V	IF=20mA	/	/	/	deg

### Standard Bins @IF= 20 mA 「标准出货等级在顺向电流为 20 毫安」

1. Lamps are sorted to forward voltage(VF), luminous intensity (IV) and dominant wavelength( $\lambda$ D) bins shown.

发光二极管按顺向电压，亮度和波长分成如下所示等级。

2. Orders for JZL-SY937C-I0P-F may be filled with any or all bins contained as below.

JZL-SY937C-I0P-F 订单可能包括如下任何等级或所有等级。

3. All forward voltage(VF), luminous intensity (IV) and dominant wavelength( $\lambda$ D) values shown and specified are at IF = 20 mA.

所有顺向电压，亮度和波长都是在顺向电流为 20 毫安下测试。

### 4. BIN Rank 「等级」：

VF bin rank: 「顺向电压等级范围」

V2	1.8-2.0	V3	2.0-2.2	V4	2.2-2.4
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IV bin rank 「亮度等级范围」：

P	308-400	Q	400-520	R	520-677	S	677-880
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Dominant wavelength bin rank 「主波长等级范围」：

Y4	587.85-590	Y5	590-592.5	Y6	592.5-595
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### Important Notes:

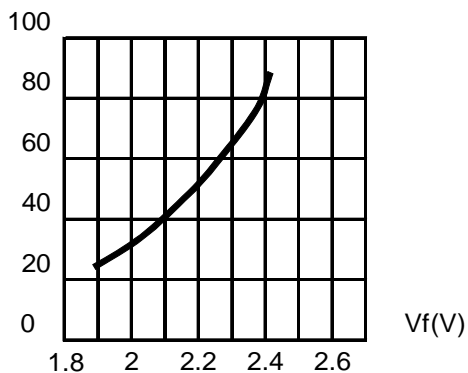
1. Vf maximum tolerance for each bin include is  $\pm 0.1V$ .  
(每个 BIN 的电压最大误差  $\pm 0.1V$ )
2. Iv maximum tolerance for each bin include is  $\pm 15\%$ .  
(每个 BIN 的亮度最大误差  $\pm 15\%$ )
3.  $\lambda$ D maximum tolerance for each bin include is  $\pm 1nm$ .  
(每个 BIN 的波长最大误差  $\pm 1nm$ )

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### Typical Optical-Electronic Characteristic Curves

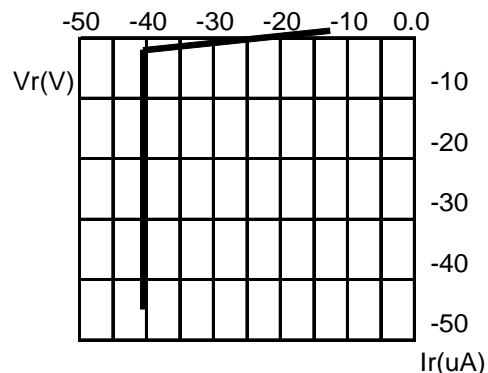
典型光电特征曲线图

If(mA)



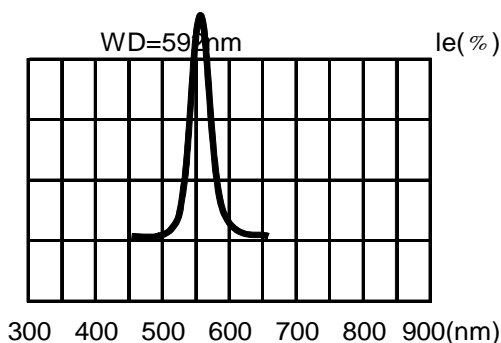
CURRENT VS. FORWARD VOLTAGE.

电压与电流关系曲线图



CURRENT VS. REVERSE VOLTAGE.

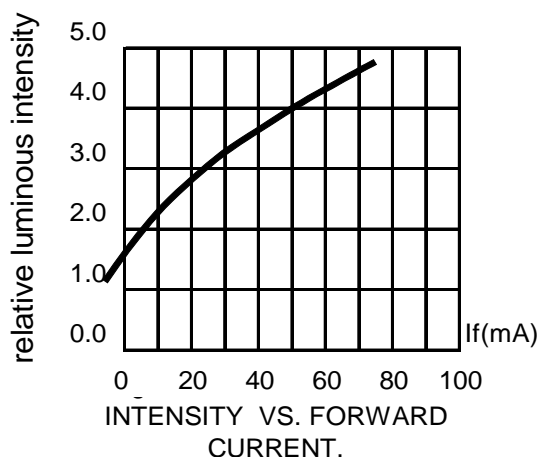
反相电流与反相电压关系曲线图



300 400 500 600 700 800 900(nm)

Fig.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

亮度与波长关系曲线图



相对发光亮度与正向电流关系曲线图

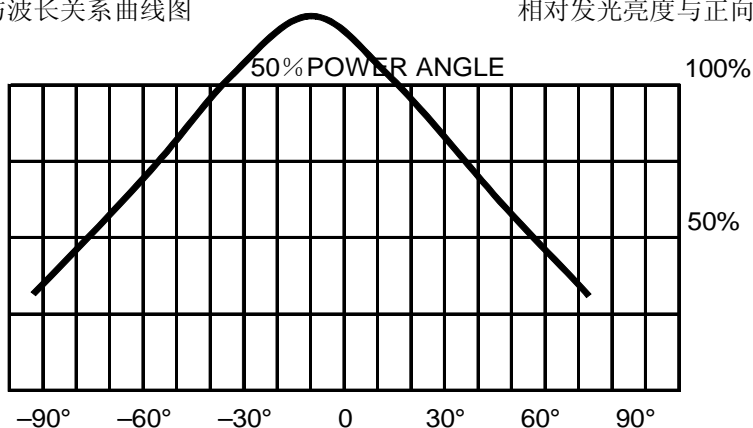


Fig.5 FAR FIELD PATTERN

**CAUTIONS:**

**Storage time**

1. The operation of Temperatures and RH are: 5°C~35°C, RH60%.
2. Once the package is opened, the products should be used within a week.  
Otherwise, they should be kept in a damp proof box with desiccating agent.  
Considering the Led life, we suggest our customers to use our products within a year(from production date).
3. If opened more than one week in an atmosphere 5°C~ 35°C, RH60%, they should be treated at 60°C±5 °C for 15hours.

**Cleaning**

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED.

**ESD(Electrostatic Discharge)**

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrostatic glove is recommended when handling these LED. All devices, equipment and machinery must be properly grounded

**注意:**

储藏时间

1. 温度和湿度条件为: 5 °C-35 °C,60%RH.
2. 包装被打开后,产品应该在一个星期内用完, 否则, 应该以原包装的样式保存在防潮柜中;  
考虑使用的寿命,我们建议客户在一年内将产品使用完(从制造日期起);
3. 如果在大气温度 5°C-35 °C、湿度 60% RH 的环境中打开超过一个星期, 则应该用 60°C±5°C的温度处理 15 小时后再使用.

清洁

使用酒精或以酒精为主的清洁溶剂清理该产品。

**ESD(静电的防范)**

静电会损坏发光二极管, 拿发光二极管的过程中请使用防静电手腕或戴防静电手套.所有装置、仪器和机器必须完好接地.

### Reliability Test 「 可靠性测试 」 :

#### (1) Test Items And Results 「 测试项目和结果 」

Test Item 测试项目	Standard Test Method 测试标准	Test Conditions 测试条件	Note 备注	Number of Damaged 允收水准
Resistance to Soldering Heat 波峰焊	JEITA ED-4701 300 302	Tsld=260± 5°C, 10sec. 3mm from the base of the epoxy bulb	1time	0/100
Solderability 手动焊接	JEITA ED-4701 300 303	Tsld=235+ 5°C, 5sec. (using flux)	1time over 95%	0/100
Thermal Shock 冷热冲击	JEITA ED-4701 300 307	-40°C/15min.~100°C/15min.	100cycles	0/100
Temperature Cycle 冷热循环	JEITA ED-4701 100 105	-40°C/30min.~25°C/5min. ~100°C/30min.~25°C/5min.	100cycles	0/100
Moisture Resistance Cyclic 耐湿循环	JEITA ED-4701 200 203	25°C~65°C~-10°C 90%RH 24hrs./1cycle	10cycles	0/100
Terminal Strength(bending test) 强度测试(弯曲模式)	JEITA ED-4701 400 401	Load 5N(0.5kgf) 0°~90°~0°bend 2 times	No noticeable damage	0/100
Terminal Strength(pull test) 强度测试(拉伸模式)	JEITA ED-4701 400 401	Load 10N(1kgf)10±1sec.	No noticeable damage	0/100
High temperature Storage 高温储存	JEITA ED-4701 200 201	Ta=100°C	1000hrs.	0/100
Temperature Humidity Storage 高温高湿储存	JEITA ED-4701 100 103	Ta=60°C, RH=90%	1000hrs.	0/100
Low Temperature Storage 低温储存	JEITA ED-4701 200 202	Ta= - 40°C	1000hrs.	0/100
Steady state Operating Life 稳定操作温度寿命		Ta=25°C, IF=20mA	1000hrs.	0/100
Steady State Operating Life of High Humidity Heat 稳定高温高湿操作温度寿命		60°C, RH=90%, IF=20mA	500hrs.	0/100
Steady State Operating Life of Low Temperature 稳定低温操作温度寿命		Ta=-30°C, IF=20mA	1000hrs.	0/100
Resistance to UV Beam 抗紫外能力		365nm/75W/mm	192hrs.	0/100

**(2)Criteria For Judging The Damage 「缺失判定标准」**

Item 项目	Symbol 符号	Test Conditions 测试条件	Criteria for Judgement 判定标准	
			Min.最小值	Max.最大值
Forward Voltage	Vf	IF=20mA	-	U.S.L.*) x 1.1
Reverse Current	Ir	VR=5V	-	U.S.L.*) x 2.0
Luminous Intensity	Iv	IF=20mA	-	Initial value x 0.7
*)U.S.L:Upper Standard Level			**)L.S.L:Lower Standard Level	

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