



## SUNSHINE ELECTRONICS TRADING LIMITED

Part No: SEL-596WCDR-064

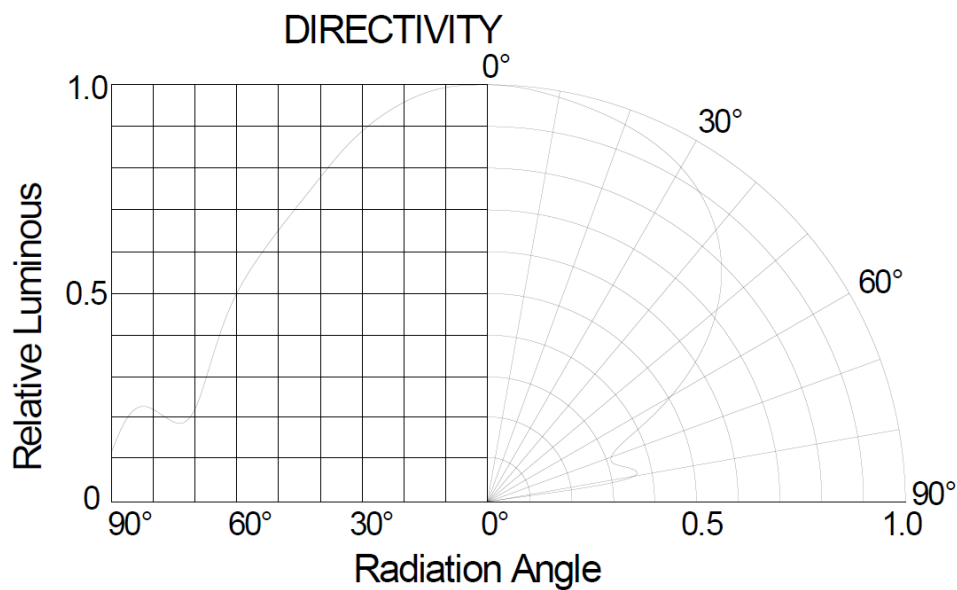
### 1. Features/特性:

- Emitting Color/发光颜色: White/白色
- High bright output/高亮度输出
- Low power consumption/低功耗
- High reliability and long life/可靠性高、寿命长
- RoHS compliant/符合 RoHS 标准

### 2. Descriptions/描述:

- Dice material/芯片材质: InGaN
- Lead material/支架材质: Fe
- Emitting Color/发光颜色: Super Bright White/高亮度白光
- Device Outline/产品外形:  $\Phi 5\text{mm}$  Round Type/5mm 圆形
- Lens Type/胶体颜色: Water Clear/无色透明

### 3. Directivity/指向特性: ( $T_a=25^\circ\text{C}$ , $I_F=20\text{mA}$ )

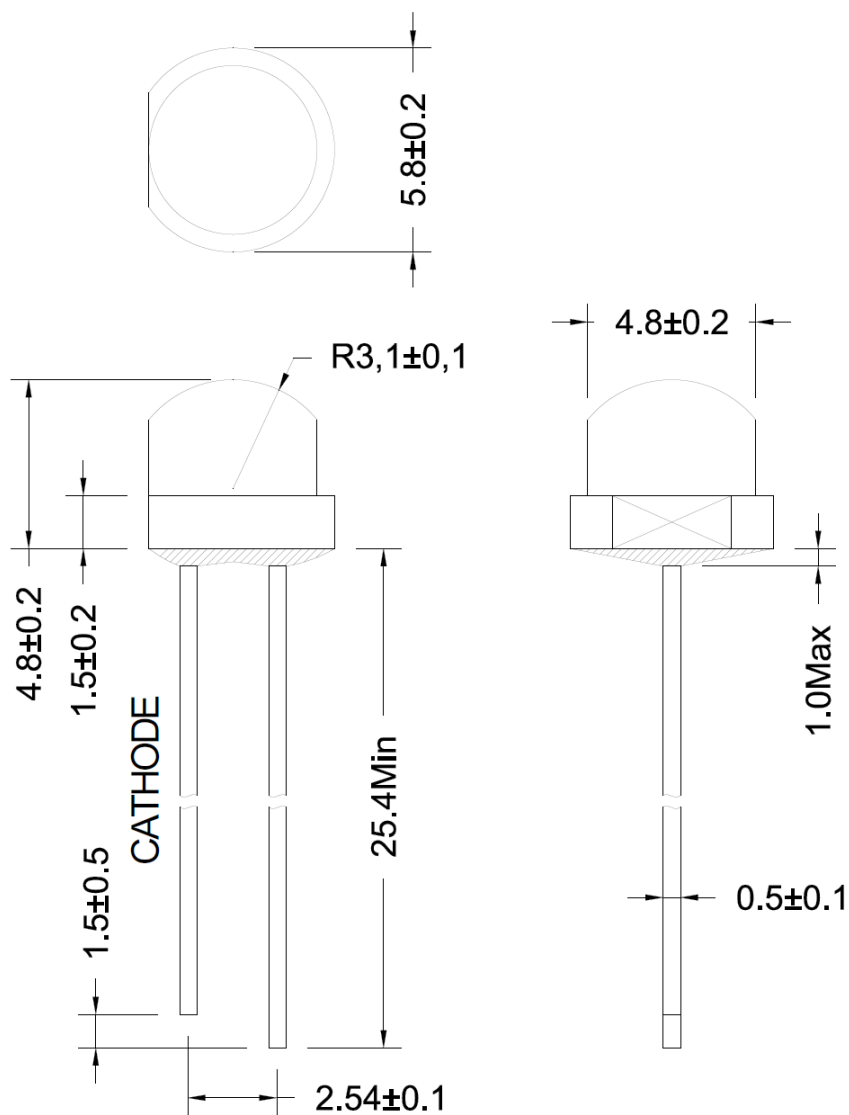




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### 4. Outline Dimensions/产品外形尺寸:



#### NOTE/注意:

- All dimensions are millimeters/ 单位: mm
- Tolerance is  $\pm 0.25 \text{mm}$  unless otherwise noted/ 没有标注的公差为  $\pm 0.25 \text{mm}$



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### 5. Absolute maximum ratings/极限参数 (Ta = 25°C)

| Parameter<br>参数                 | Symbol<br>符号 | Test Condition<br>测试条件 | Value 数值 |      | Unit<br>单位 |
|---------------------------------|--------------|------------------------|----------|------|------------|
|                                 |              |                        | Min.     | Max. |            |
| Reverse Voltage<br>反向电压         | VR           | IR = 30 $\mu$ A        | 5        | --   | V          |
| Forward Current<br>正向工作电流       | IF           | ----                   | ----     | 25   | mA         |
| Power Dissipation<br>损耗功率       | Pd           | ----                   | ----     | 90   | mW         |
| Pulse Current<br>正向峰值电流         | Ipeak        | Duty=0.1mS, 1kHz       | ----     | 100  | mA         |
| Operating Temperature<br>工作温度范围 | Topr         | ----                   | -40      | +85  | °C         |
| Storage Temperature<br>储存温度范围   | Tstr         | ----                   | -40      | +100 | °C         |

### 6. Electrical and optical characteristics/光电参数 (Ta = 25°C)

| Parameter<br>参数            | Symbol<br>符号   | Test Condition<br>测试条件 | Value 数值 |      |      | Unit<br>单位 |
|----------------------------|----------------|------------------------|----------|------|------|------------|
|                            |                |                        | Min.     | Typ. | Max. |            |
| Forward Voltage<br>正向电压    | VF             | IF = 20mA              |          | 3.2  | 3.6  | V          |
| Reverse Current<br>反向电流    | IR             | VR = 5V                | ----     | ---- | 30   | $\mu$ A    |
| Luminous Intensity<br>发光强度 | IV             | IF = 20mA              | ----     | 2200 | ---- | mcd        |
| Viewing Angle<br>指向角度      | 2 $\theta$ 1/2 | IF = 20mA              | ----     | 120  | ---- | Deg.       |

Notes/备注: Tolerance 误差: VF:  $\pm 0.10$ V, IV:  $\pm 15\%$ , 其它:  $\pm 5\%$   
出货分档以发光强度为标准, 光通量值仅供参考

### 7. Luminous Intensity Bins Chart/亮度等级 (Ta = 25°C)

| Bin | T    | U    | V    |
|-----|------|------|------|
| Min | 1000 | 1500 | 2000 |
| Max | 1500 | 2000 | 3000 |

Notes/备注: Rank error/分档误差: IV:  $\pm 15\%$



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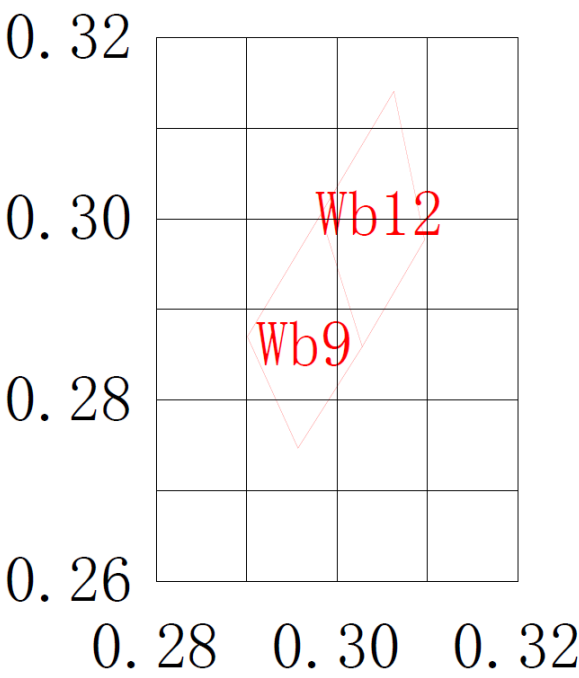
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8. Chromaticity Coordinates Ranks /色坐标等级 (IF=20mA Ta=25°C)

色坐标误差: ±0.01

| 代码   | 轴 | 参数     |        |        |        |
|------|---|--------|--------|--------|--------|
| Wb9  | X | 0.2901 | 0.2982 | 0.3028 | 0.2957 |
|      | Y | 0.2870 | 0.3005 | 0.2859 | 0.2747 |
| Wb12 | X | 0.2982 | 0.3063 | 0.3097 | 0.3028 |
|      | Y | 0.3005 | 0.3141 | 0.2977 | 0.2859 |

9. CIE 1931 Chromaticity diagram/CIE1931 图 (IF=20mA Ta=25°C)





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## 10. Typical electrical/optical characteristic curves/光电特性曲线:

Fig.1 正向电流 Vs. 正向电压

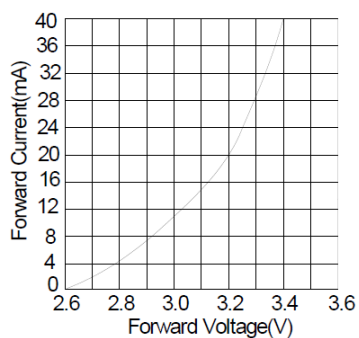


Fig.2 相对亮度 Vs. 正向电流

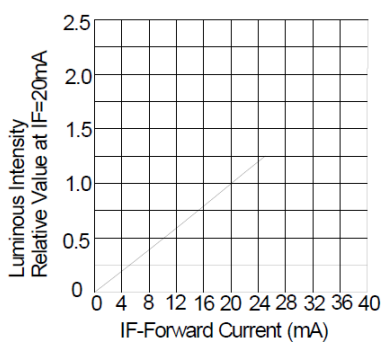


Fig.3 正向电流 Vs. 环境温度

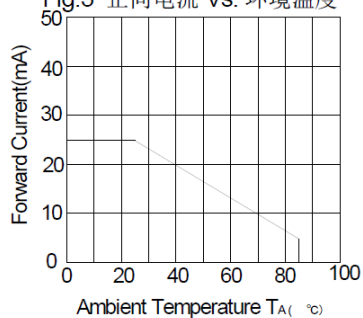


Fig.4 相对亮度 Vs. 环境温度

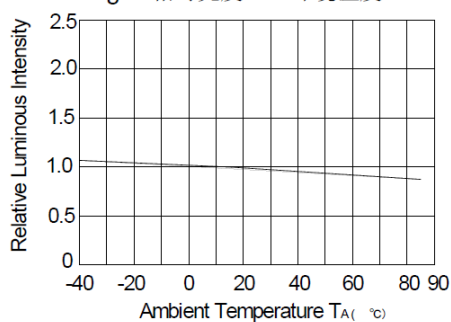


Fig.5 相对亮度 Vs 波长

