



SUNSHINE ELECTRONICS TRADING LIMITED

Part No: SEL-2835-RC-2V060



ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

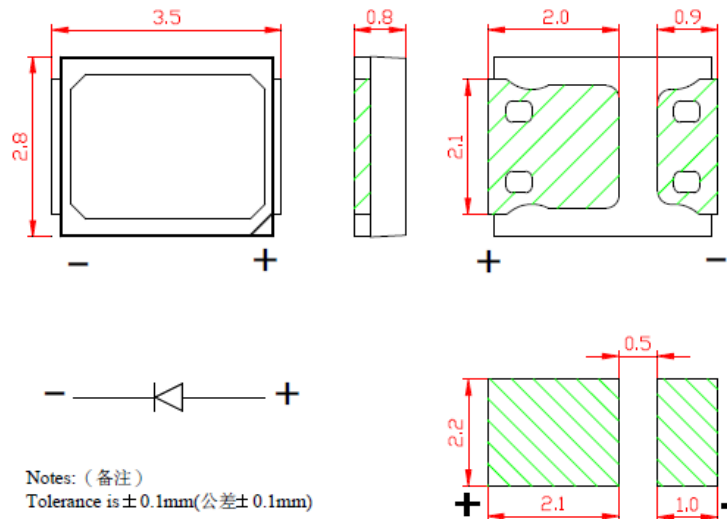
1、Features/特 征:

- Emitting Color/发光颜色: Red/红色
- Lens Type/封装特性: Water Clear/无色透明
- Device Outline/外形特征: $3.5 \times 2.8 \times 0.8$ (unit:mm)
- HBM ESD:Class 2/人体抗静电指标: Class 2
- Pb-Free/无铅
- RoHS compliant/符合 RoHS 标准

2、Applications/应 用:

- Backlight for Mobile, Machine Vision, LCD Display/手机、电话、显示屏背光源
- Automotive lighting /汽车照明

3、Outline Dimensions/产品外形尺寸:



参考焊盘尺寸



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4、Absolute maximum ratings/极限参数 (Ta = 25℃):

Parameter 参数	Symbol 符号	Value 参数	Unit 单位
Power Dissipation 损耗功率	Pd	200	mW
Reverse Voltage 反向电压	VR	7	V
Pulse Current 正向峰值电流 ^[1]	IFp	100	mA
Forward Current 正向工作电流	IFm	60	mA
Operating Temperature 工作温度范围	Topr	- 40 ~ +85	℃
Storage Temperature 储存温度范围	Tstr	- 40 ~ +100	℃

Notes/备注: [1]. 0.1ms pulse width, 1/10 Duty. / [1] 脉冲宽度0.1ms, 占空比1/10。

5、Electrical and optical characteristics/光电参数 (Ta = 25℃):

Parameter 参数	Symbol 符号	Test Condition 测试条件	Value 参数			Unit 单位
			Min.	Typ.	Max.	
Forward Voltage 正向电压	VF	IF = 60mA	2.0	2.2	2.4	V
Reverse Current 反向电流	IR	VR = 7V	—	—	50	μ A
Dominate Wavelength 主波长	λ d	IF = 60mA	619	625	629	nm
Spectral Line half-width 半波宽度	Δ λ	IF = 60mA	—	20	—	nm
Luminous Intensity 发光强度	Iv	IF = 60mA	1900	2500	—	mcd
Viewing Angle 发光指向角	2 θ 1/2	IF = 60mA	—	120	—	Deg.

Notes/备注: Tolerance 误差: VF: ±0.10V, Iv: ±15%, 其它: ±5%



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6、Product Ranks/产品分档范围:

Luminous Intensity / 发光强度 (mcd)

(Ta=25°C)

Rank	1.9-2.1cd	2.1-2.6cd	2.6-3cd	3-3.5cd
Iv	1900-2130	2130-2550	2550-3000	3000-3500

Wavelength / 波长 (nm)

(Ta=25°C)

Rank	R1	R2	R3	R4
WLD	618-621	621-624	624-627	627-630

Voltage / 电压 (V)

(Ta=25°C)

Rank	E	F	G	H
Vf	2.0-2.1	2.1-2.2	2.2-2.3	2.3-2.4

Notes/备注: Rank error/分档误差: Iv: $\pm 15\%$, λd : $\pm 1\text{nm}$, Vf: $\pm 0.10\text{v}$



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7、Typical electrical/optical characteristic curves/光电特性曲线:

Fig.1 正向电流 Vs. 正向电压

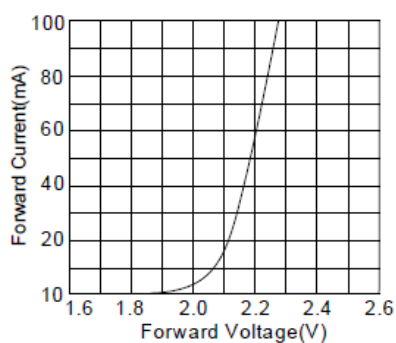


Fig.2 相对亮度 Vs. 正向电流

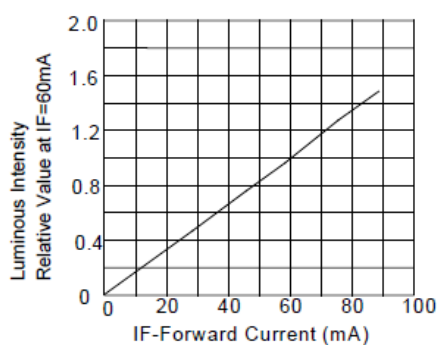


Fig.3 正向电流 Vs. 环境温度

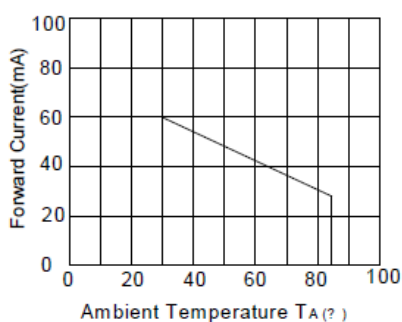


Fig.4 相对亮度 Vs. 环境温度

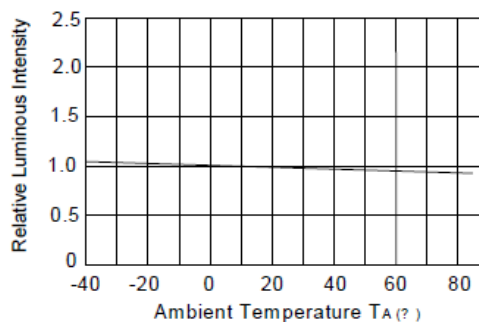
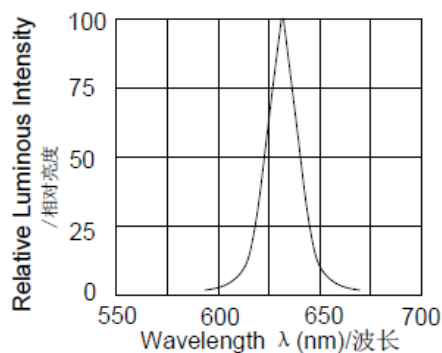
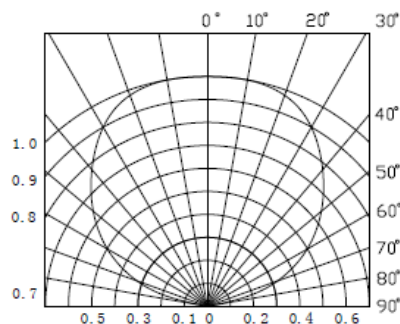


Fig.5 相对亮度 Vs. 波长



SPATIAL DISTRIBUTION





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8、Relibilty Analysis/可靠性试验

8.1 Test Items And Results/测试项目和判据

No.	Item/项目	Test Condition/测试条件	Spec. / 引用标准	Q'ty/数量	Time/ 时间	Standard/判定
1	IR Reflow (Reflow Soldering) 回流焊接	Tsld=260°C T=10sec	JESD22-B106	20	3times	ALL PASS
2	Solder ability 可焊性	Tsld=235±5°C, 3sec	JESD22-B102	20	1times Over 95%	ALL PASS
3	Temperature Cycle 高低温循环	100°C 30mins ↑ ↓ 5mins -40°C 30mins	JESD22-A104	20	100cycles	ALL PASS
4	High Temperature High Humidity 高温高湿	85°C/85%RH	JESD22-A118	20	168hrs	ALL PASS
5	High Temperature Storage 高温储存	Ta=100°C(-0/+10°C)	JESD22-A103	20	1000hrs	ALL PASS
6	Low Temperature Storage 低温储存	Ta=-40°C(-10°C/+0)	JESD22-A119	20	1000hrs	ALL PASS
7	Steady State perating Life 电耐久性	Ta=25°C±5°C IF=60mA	JESD22-A108	20	1000hrs	ALL PASS

8.2 Criteria For Judging Damage/判断标准

Item/项目	Symbol/ 符号	Test conditions /测试条件	Criteria for Judgement /判断标准	
			Min./最小值	Max./最大值
Luminous Intensity/亮度	Iv	IF=60mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=60mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=7v	/	U.S.L*2

*U.S.L.: Upper Standard Level / 上限

*L.S.L.: Lower Standard Level / 下限



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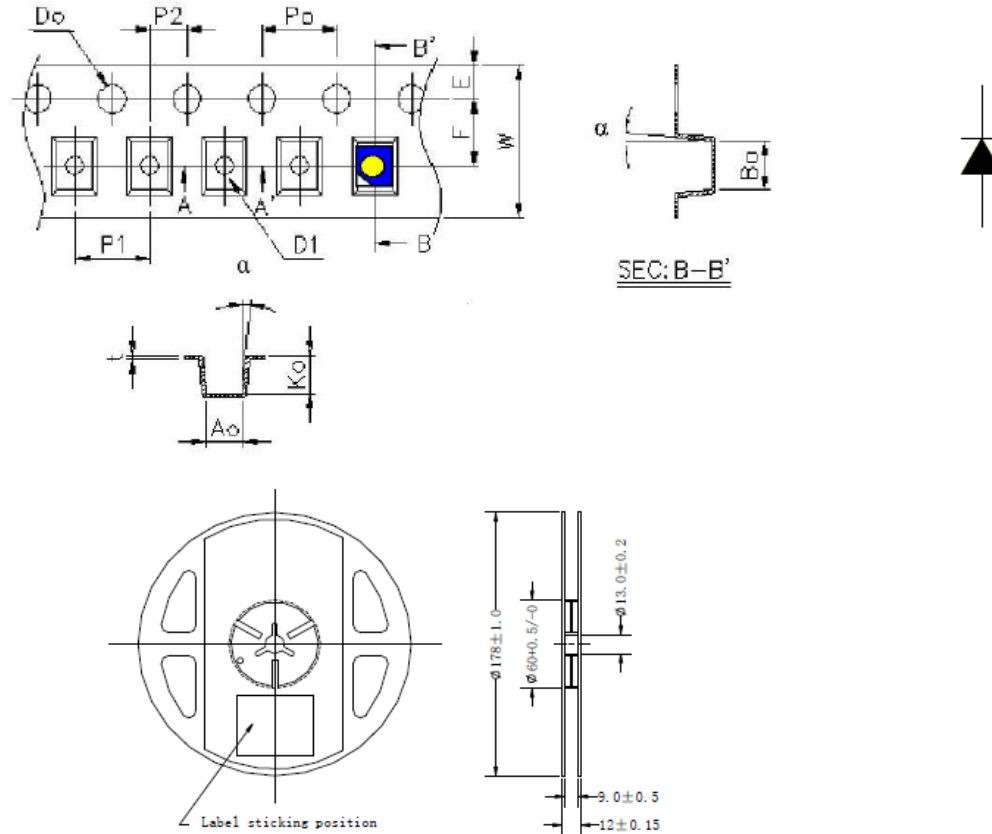
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9、Specification of Packing /包装规格

9.1 Taping and Orientation /编带和方向

Quantity/数量 : 4000 units/reel

Diameter/直径 : 178 mm



Item/项目	Spec/数值	Tol.(+/-)/误差	Item/项目	Spec/数值	Tol.(+/-)/误差
W	8.00	±0.10	P2	2.00	±0.05
E	1.75	±0.10	T	0.20	±0.02
F	3.50	±0.010	A0	3.00	±0.10
D0	1.55	±0.05	B0	3.75	±0.10
D1	1.10	±0.1	K0	1.25	±0.10
P0	4.00	±0.1	α	Max 5°	