

产 品 规 格 书

SPECIFICATION FOR PRODUCTION

客户代码 Custome:

产品型号 Product Name: S3020ANB4-C

样品单号 Version number:

日期 Dellver date:

客户承認簽章		
Customer confirm and sign		
檢 查 TESTED BY	核 對 CHECKED BY	承 認 APPROVED BY
審 核 結 果 INSPECT RESULT	<input type="checkbox"/> 合 格 ACCEPT	<input type="checkbox"/> 不 合 格 REJECT
說明 (REMARK): _____ _____		

产品型号 Part Number: S3020ANB4-C

Features

- Package Size: 3.0(L) × 2.0(W) × 1.3(T) mm
- Silicone Packed
- Suitable for different working environment
- Super long lifetime: 30000HRs
- Anti UV
- White colors are available in(2400K- 25000K)
- Wide viewing angle ($2\theta_{1/2}=120^\circ$)

产品特征

- 封装尺寸: 3.0(长) × 2.0(宽) × 1.3(厚) mm
- 采用硅胶封装
- 适应多种工作环境
- 超长寿命: 30000 小时
- 防紫外线
- 可供白光(2300K- 25000K)
- 宽角度 ($2\theta_{1/2}=120^\circ$)

Device Selection Guide 物料选用指南

ITEM 项目	MATERIALS 物料
Resin 胶体	Silicon 硅胶
Bonding wire 焊线	25 μ m Au
Lens color 胶体颜色	Water Clear 水清透明
Dice 晶片	InGaN



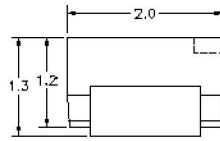
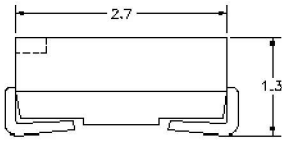
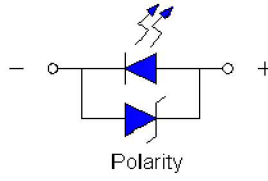
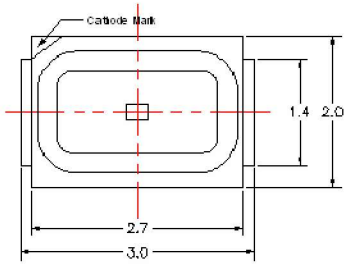
Applications

- Indoor lighting:** Fluorescent lamp, tube
- Commercial illumination and displays:** Advertising words, light box
- LCD Backlighting**
- Decorative lighting:** light strip
- Automotive interior auxiliary lighting**
- Other illumination and displays**

产品应用

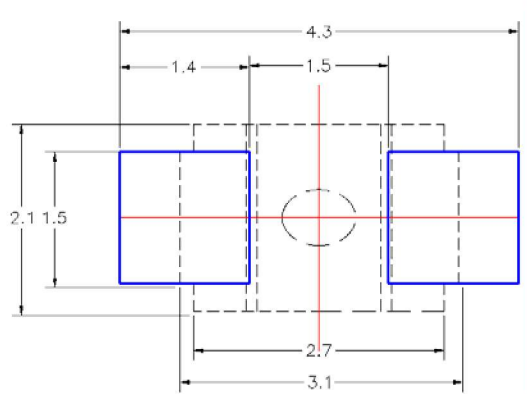
- 室内照明: 日光灯管、灯条
- 商业照明显示: 广告字、广告灯箱
- LCD 背光源
- 装饰照明: 柔性灯条
- 汽车内部辅助照明
- 其它照明和显示类

■ Package Dimensions



Unit : mm
Tolerance : ± 0.1 mm

■ Recommended Soldering Pad Design



产品名称 Part Number: S3020ANB4-C						
极限参数 Absolute maximum ratings						(TA=25℃)
参数 Parameter	符号 Symbol	额定值 Rat	Unit (单位)			
正向电流 Forward current	I _F	20	mA			
反向电压 Reverse voltage	V _r	5	V			
功耗 Power dissipation	P _d	120	mW			
工作温度 Operating Temperature	T _{op}	-20 ~+80	℃			
储存温度 Storage Temperature	T _{stg}	-40 ~+80	℃			
峰值正向电流 Peak Forward Current (Duty 1/10 @ 1KHz)	I _{FP}	20	mA			
焊接温度 Lead Soldering Temperature (5mm From Body)	T _{sol}	260℃ For 5 Seconds)/℃				
光电特性 Electro-optical characteristics						(T _A =25℃)
参数 Parameter	测试条件 Test Condition	符号 Symbol	数值 Value			单位 Unit
			Min	Avg	Max	
主波长 Main Wave Length	I _F =20mA	λ D	460	465	470	nm
正向电压 Forward voltage	I _F =20mA	V _f	3.0	---	3.4	V
光通量 Luminous Flux	I _F =20mA	Φ	0.6	0.7	0.8	lm
发光强度 Luminous intensity	I _F =20mA	I _v	300	400	500	mcd
角度 Viewing Angle	----	2 θ 1/2	---	120	---	deg
反向电流 Reverse Current	----	I _R	--	--	10	μA

发光强度范围 Luminous Intensity Ranking (TA=25oC) :

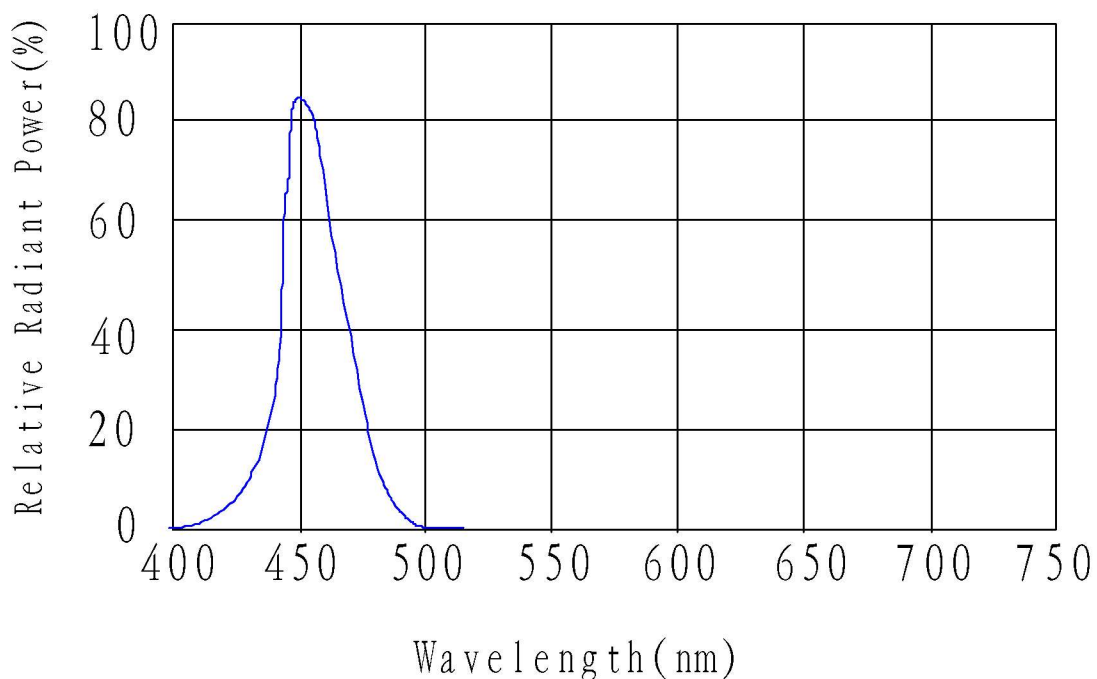
产品型号 Part Number	胶体颜色 Lens color	主波长 Main Wave Length		发光强度 Luminous intensity (mcd)	光通量Φ@ 20mA Luminous Flux (lm)	正向电压 Vf@20mA Voltage (V)	发光颜色 Color
		Min	Max				
PL-T35281 B-**	Water clear	460	470	300-500	0.6-0.8	3.0-3.4	Blue 蓝光

Note:

1. $\pm 0.1V$. 正向电压的公差为 $\pm 0.1V$ Tolerance of Forward Voltage is .
2. $\pm 15\%$. 光通量的公差为 $\pm 15\%$ Tolerance of Luminous Flux is .
3. 如显色指数达80以上, 产品的亮度将比上表所列略低。如对显色指数有特别要求, 请咨询市场人员

If Ra is over 80, the brightness of products will be lower than listed below. For further information of Ra, please consult marketing staff of Sunlight.

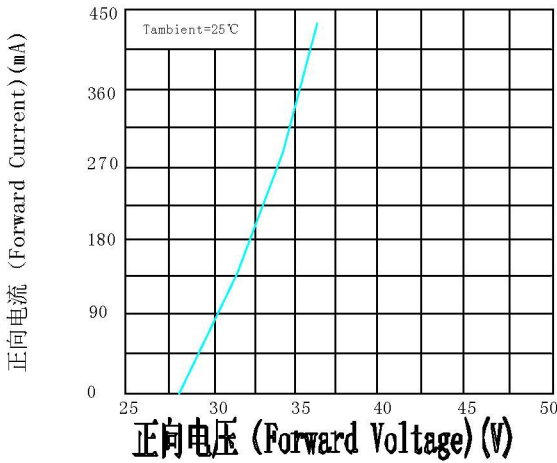
蓝光光谱测试曲线图 Spectrum test graph for Blue color (20mA):



光电特性 (Optical-Electrical Characteristic)

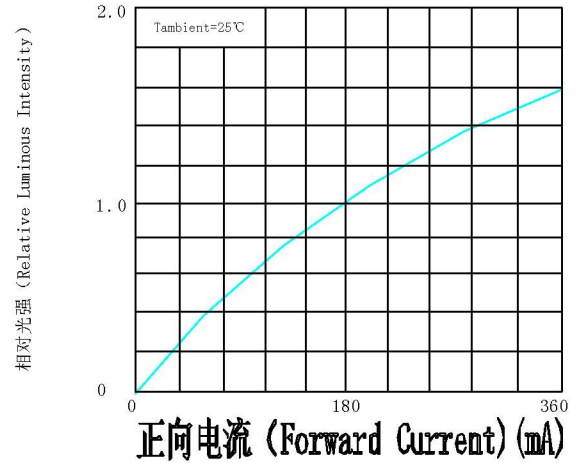
伏安特性

Volt-Ampere Characteristics



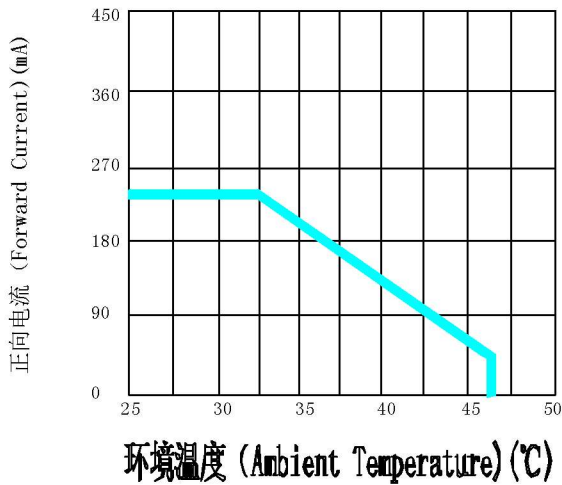
相对光强与正向电流特性

Relative Luminous Intensity VS Forward Current



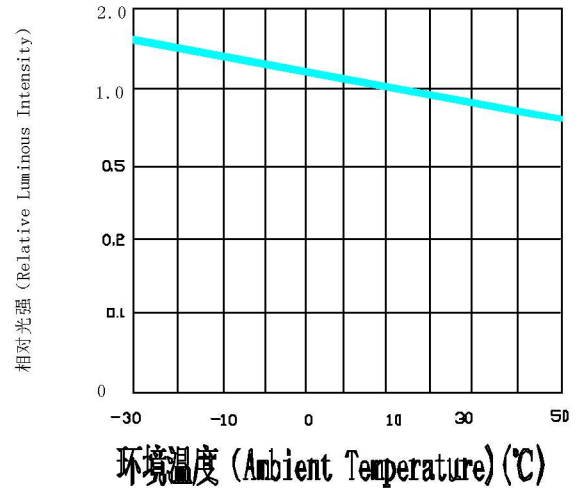
正向电流降额曲线

Forward Current Derating Curve



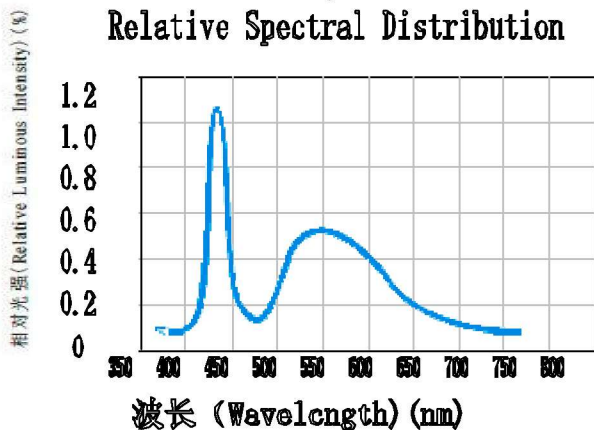
光强与环境温度曲线

Luminous Intensity VS Ambient Temperature



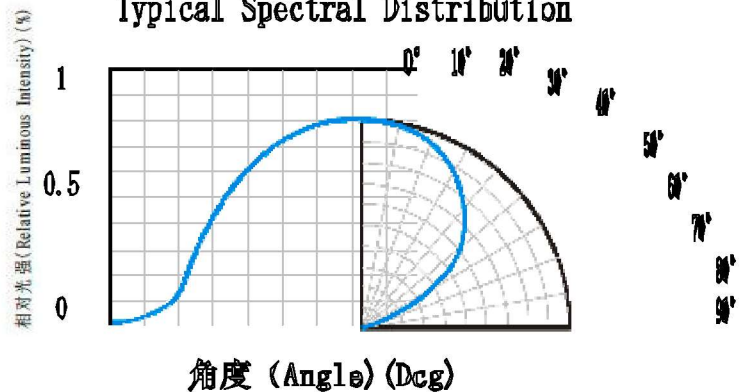
光谱分布特性曲线

Relative Spectral Distribution



光强分布特性曲线

Typical Spectral Distribution



可靠性RELIABILITY

试验项目 Test Items	试验条件 Test Conditions	试验数量 Quantity	判断标准 Judging
可焊性试验 Solderability	焊接温度 (Solder Temperature) 300°C 焊接时间 (Solder Duration) 3.5 ± 0.5 sec.	1 5	湿润良好 上 锡面积在95%以上 Solderable Area Over 95%
温度快速变化继之以 循环湿热 Thermal Shock Followed by High Temperature And High Humidity Cyclic	-40°C ? 10 min 5次循环 转移 (2-3)min 5Cycles Shift 100°C ? 10 min. 25 °C ~55 °C (90%~95%) RH 2 次循环48 hrs., 恢复2 hrs. 2 Cycles for 48 hrs. Recover for 2 hrs.	1 1	C=0 & I**
耐焊接热试验 Resistance For Soldering Heat	红外回流焊法 Reflow Soldering	1 -	C=0 & I**
电耐久性试验 DC Operating Life	1000 hrs. 正向电流: 200mA Forward Current: 200mA	2 2	C=0 & I*
高温贮存试验 High Temperature Storage	100°C? 1000 hrs.	1 5	C=0 & I*
循环湿热 High Temperature And High Humidity Cyclic	25°C~55°C (90%~95%) RH 6 次循环144 hrs., 恢复2 hrs. 6 Cycles for 144 hrs. Recover for 2	1 1	C=0 & I*

失效判断标准 Criteria For Judging Damag

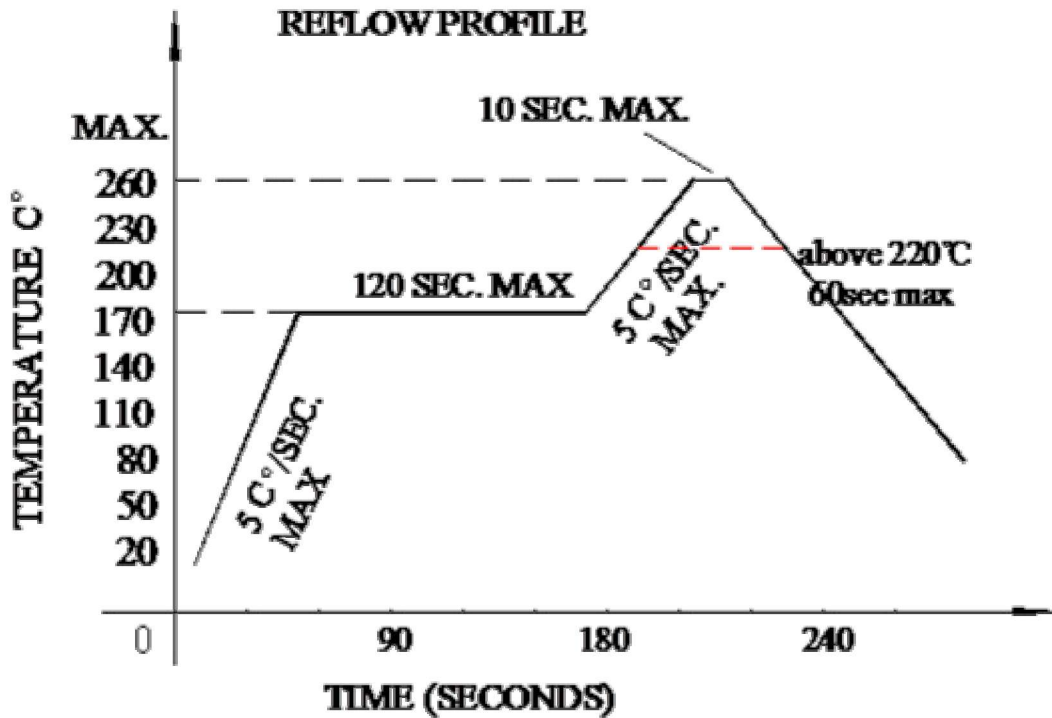
测试项目 Items	符号 Symbo	测试条件 Test	失效判断标准 I* Criteria For Judging Damage	失效判断标准 I** Criteria For Judging Damage I**
正向电压 Forward Voltage	V_F	$I_F=180mA$	\geq USL $\times 1.$	\geq USL
反向电流 Reverse Current	I_R	$V_R=5V$	\geq USL $\times 2.$	\geq USL
光强 Luminous Intensity	I_V	$I_F=180mA$	\leq LSL $\times 0.$	\leq LSL

* USL: 标准值上限值, LSL: 标准值下限值 * USL: Upper Standard Level, LSL: Lower Standard Level

产品使用说明 (Useful hint) :

回流温度曲线 Reflow Profile

回流 Temp /时间 Reflow Temp/Time



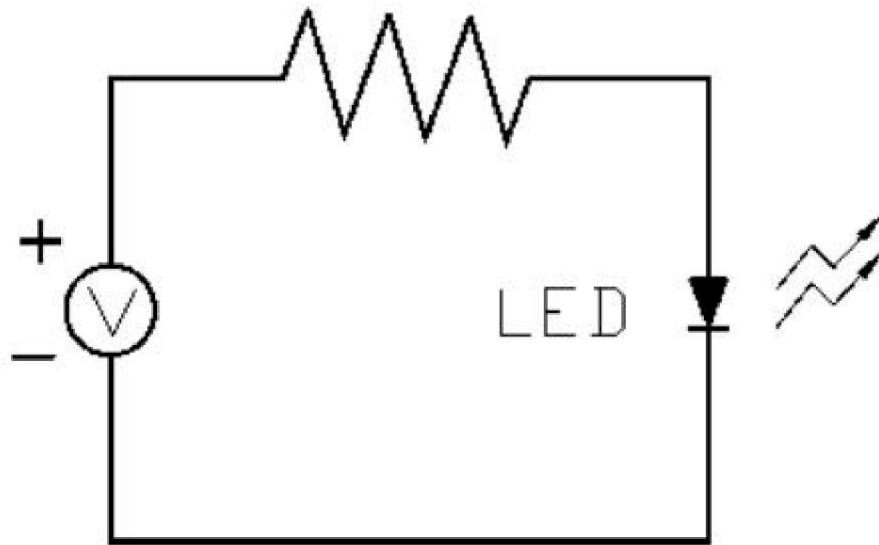
烙铁

Soldering iron

基本规格: 260°C? 5sec, 如果温度更高时间应该缩短(+10°C? Basic spec is 5sec when 260°C. If temperature is higher, time should be shorter (+10°C? -1sec) 铁消耗功率应该小于15W, 温度是可以控制的 (-1sec). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under 230°C.

测试电路和处理措施 Test circuit and handling precautions

测试电路 Test circuit



操作警惕

Handling precautions

1. 超大电流防范

Over-current-proof

顾客必须应用电阻器保护, 否则轻微 的电压变化将

Customer must apply resistors for protection; otherwise slight voltage shift will cause
导致电流大改变(引发爆炸)

big current change (Burn out will happen).

2. 贮藏

Storage

2.1 产品的存储条件如下:

It is recommended to store the products in the following conditions:

湿度: 60% R.H Max.

Humidity: 60% R.H. Max.

温度: 5°C~30°C (41°F~86°F)

Temperature : 5°C~30°C (41°F~86°F)

2.2 密封袋保质期: 开包后 12 个月在 <5°C~30°C 和 <30% R.H.

Shelf life in sealed bag: 12 month at <5°C~30°C and <30% R.H. after the package is
产品必须在一周内使用, 或拉链密封 ≤ 20 R.H 的条件下

Opened, the products should be used within a week or they should be keeping to stored
存储.

at ≤ 20 R.H. with zip-lock sealed.

3. 烘烤

Baking

建议当包装拆封 72 小时后在软焊前烘烤.

It is recommended to baking before soldering when the pack is unsealed after 72hrs.
其条件如下:

The conditions are as followings:

3.1 60±5°C x(12~24hrs) and <5%RH 卷轴类型

60±5°C x(12~24hrs) and <5%RH, taped reel type

3.2 100±5°C x(1hr~2hr), 散装类型

100±5°C x(1hr~2hr), bulk type

3.3 150±5°C x(30min~1hr) 散装类型

150±5°C x(30min~1hr), bulk type