

Integrated

J50-A4A30-60D-10C05

PRODUCT DATA SHEET

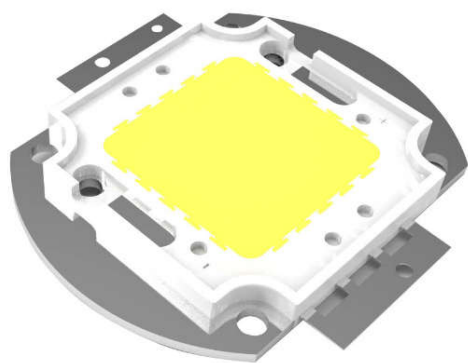
产品规格书

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版本：201803V1

1、产品命名规则



J	50	A4	A30	60	D	10C05
[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1]	表示集成产品					
[2]	表示功率					
[3]	表示支架					
[4]	表示芯片规格					
[5]	表示色温					
[6]	表示显指					
[7]	表示串并方式					

2、产品描述

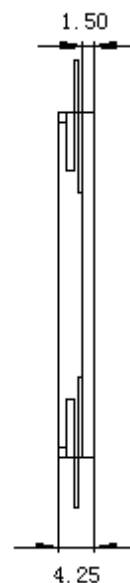
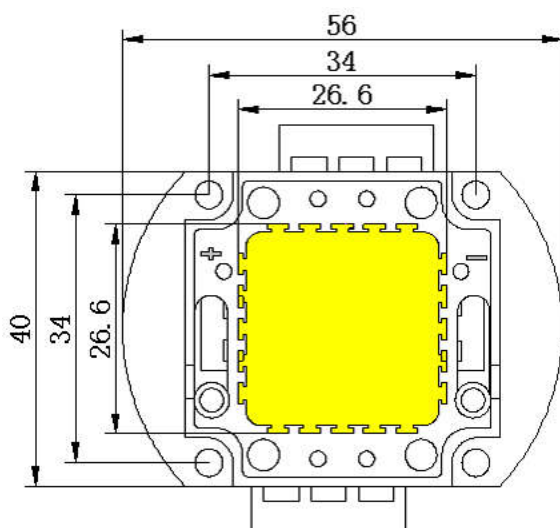
特点

- 高功率、高亮度、高光效
- 台湾晶元晶片
- 纯金线 99.99%封装
- 高导热紫铜基板

应用

- ◆ 商业照明
- ◆ 装饰照明
- ◆ 酒店照明
- ◆ 户外照明

3、产品外观尺寸



备注:

- 1、所有尺寸以 mm 为单位。
- 2、所有未注公差为 $\pm 0.25\text{mm}$ 。

4、Electro Optical Characteristics 光电特性(Ta=25℃)

Power 功率 (W)	Product Code 产品型号	CCT 色温 (K)	Luminous Flux 光通量 (lm) Typ.	Voltage 电压 (V)	Current 电流 (mA)	Efficacy 光效 (lm/W) Typ.	CRI 显指 Typ.
50	J50-A4A30-60D-10C05	6000-6500	5000	30-34	1750	90	70-75

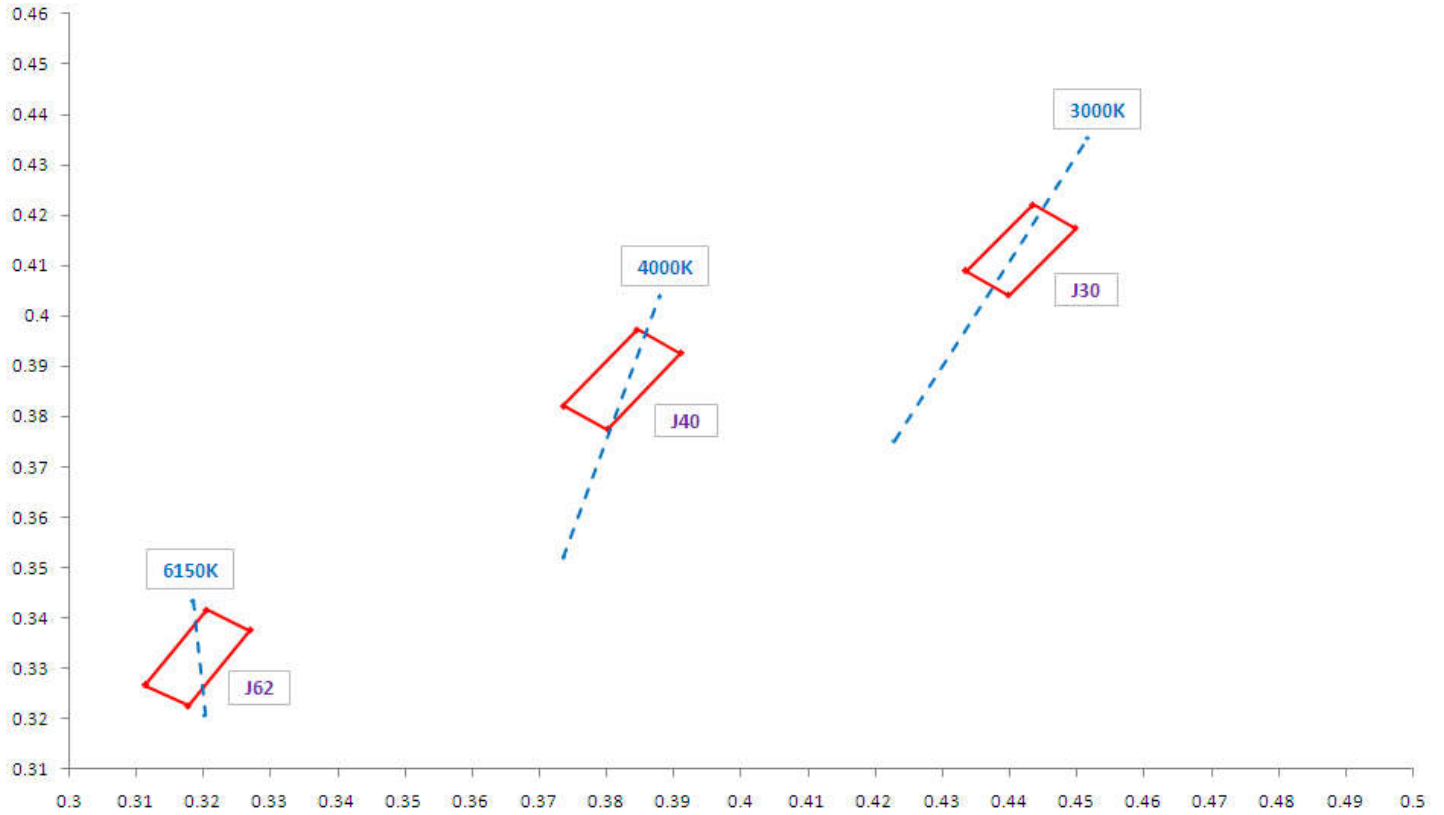
5、Limit Parameters 极限参数 (Ta=25℃)

Parameter 项目	Symbol 符号	Rating 参数	Unit 单位
Forward Current 正向电流	I _F	1.4	A
Junction Temperature 结温	T _J	125	℃
Reverse Voltage 反向电压	V _R	Forbidding reverse 禁止反向驱动	
Operating Temperature 工作温度	T _{OPR}	-30℃ To +75℃	
Soldering Temperature 手工焊接温度	T _{SOL}	300℃± 20℃ For 3 Seconds	
ESD Sensitivity 防静电敏感度	ESD	2000V HBM	

Notes 备注:

1. Crescent Electronics maintains a tolerance of±10% on luminous flux measurements.
2. Crescent Electronics maintains a tolerance of±3% on forward voltage measurements.
3. Crescent Electronics maintains a tolerance of±1 on Ra measurements.

6、Chromaticity Characteristics 色度坐标(Ta=25℃)



色温范围	X	Y	色温范围	X	Y	色温范围	X	Y
3000-3200K	0.4335	0.4089	4000-4200K	0.3737	0.3822	6000-6500K	0.3114	0.3266
色区代码	0.4435	0.4221	色区代码	0.3846	0.3973	色区代码	0.3206	0.3416
J30	0.4499	0.4173	J40	0.3911	0.3926	J62	0.3270	0.3376
	0.4399	0.4041		0.3802	0.3775		0.3178	0.3226

7、Reliability Test 可靠性测试测试项目和条件

Serial No. 序号	Test Item 项目	Test Condition 测试条件	Test Cycle 测试周期	Test Qty. 样本数量	Ac/Re
1	Continuous Operation Test 光通量维持率	Ta=25°C IF=1750mA	1000H	10	0/1
2	Low/High Temperature Storage Test 冷热冲击	-40°C/30min~ +125°C/30min	200 Cycles	22	0/1
3	High Temperature Operation Test 高温测试	Ta=85°C±5°C IF=1750mA	1000H	10	0/1
4	Moisture-proof Test 高温高湿测试	85°C/85%RH	1000H	10	0/1
5	ESD Test 抗静电测试	2000V HBM	1 Minute	22	0/1

8、Failure Criteria 对于损害的判断的准则

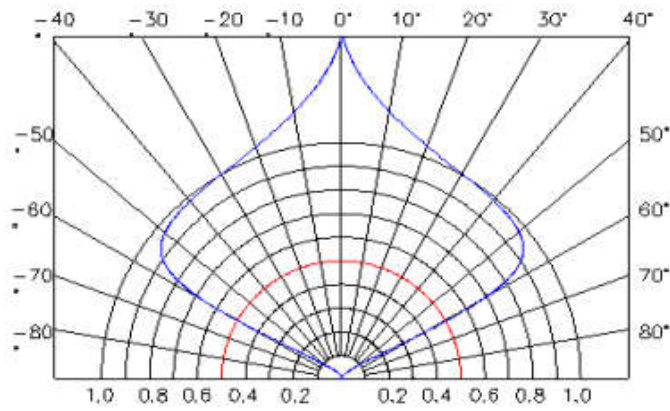
Measuring Items 项目	Symbol 符号	Measuring Conditions 测试条件	Failure Criteria 范围	
			Min.	Max.
Total Luminous Flux 光通量	Φ	IF=1750m A	L.S.L*0.8	-----
Forward Voltage 正向电压	VF	IF=1750m A	-----	U.S.L*1.1

Note:

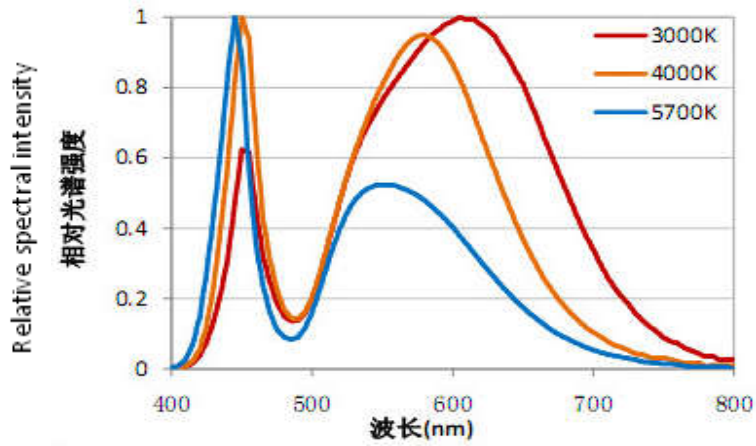
L.S.L : Low Standard 下限判定标准。

U.S.L : High Standard 上限判定标准。

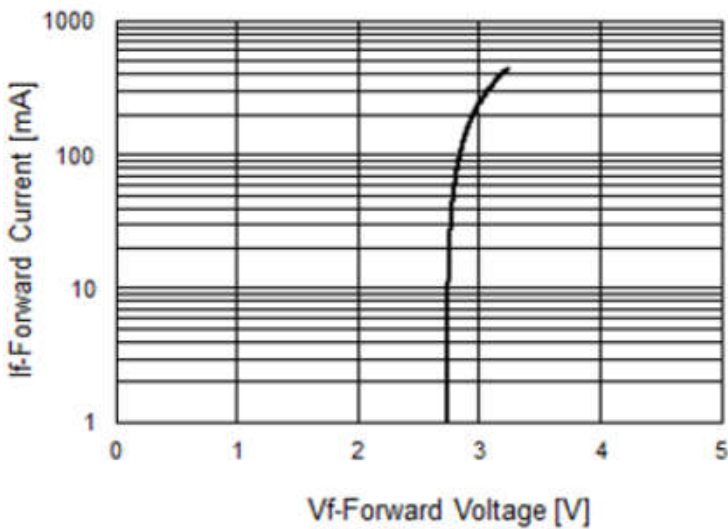
9、Characteristic Curves 特性曲线图



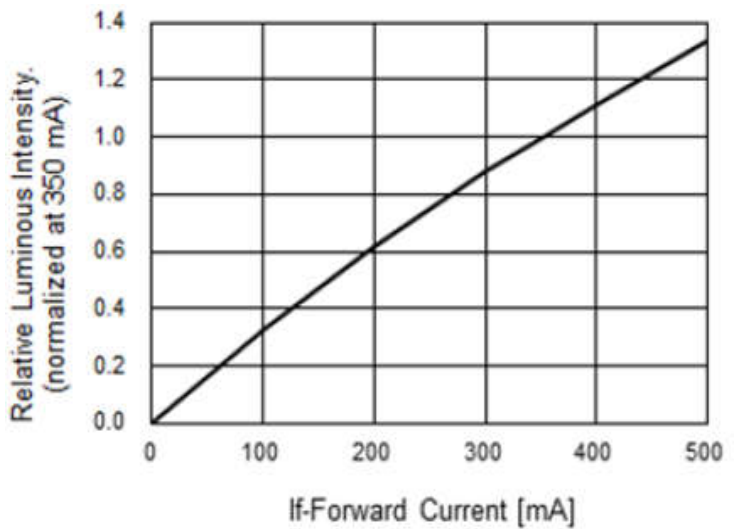
Beam Angle 发光角度±5°



Radiative Intensity Curve 相对光谱能量曲线图



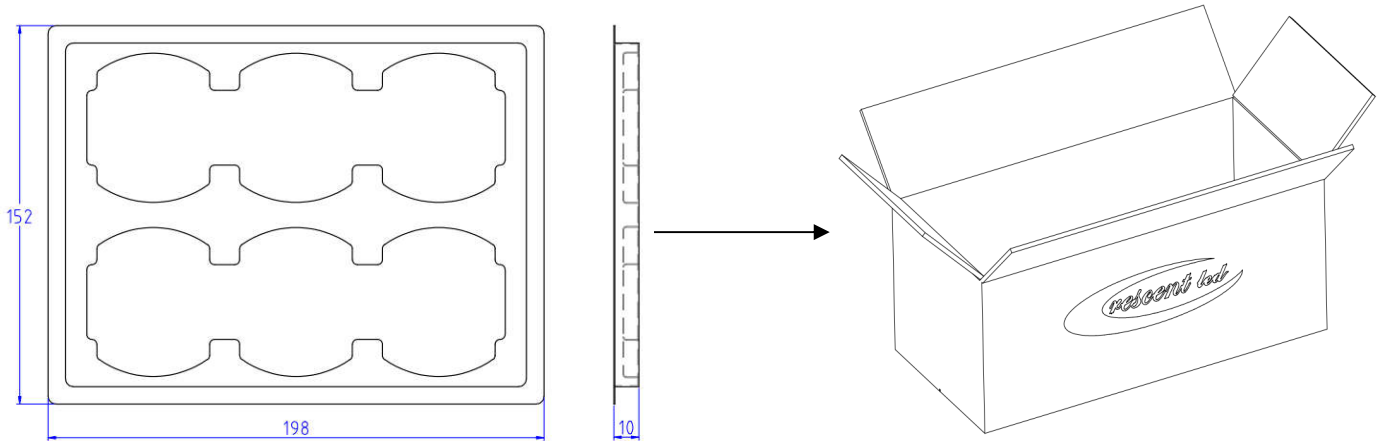
Forward Current vs. Forward Voltage



Relative Luminous vs. Flux Forward Current

10、Packing Specification 产品包装说明

托盘尺寸	装箱方式	外箱尺寸	每托盘数量	每箱总数	毛重
198*152*10	1*6*10*6	450*210*180	6pcs	360pcs	12.8kg



unit:mm

11、User Manuel 使用手册

1. Storage 储存

To avoid moisture, we recommend storage conditions for the unopened LED +5 ~ +30 °C, rela-tive humidity <60%. LED should be used within 168 Hrs. of opening the package. Please make sure to dehumidify and vacuum pack the remaining/ unused LED. Dehumidifying condition: +120 °C ± 5 °C, 04 Hrs. Effective age for the sealed led is one year. 为避免受潮的影响，我司建议产品在未开包装前储存条件为 5-30°C，相对湿度小于 60%。已开包装的 LED 光源请在 168H 内使用安装完毕，如未用完之产品，请进行除湿并抽真空后密封保存。除湿条件：120°C±5°C，4H。产品密封保存有效使用期为一年。

2.The soldering precautions 组装注意事项：

Soldering conditions: Reflow soldering is not recommended for this LED. If hand soldering, set sol-dering iron temperature at 350°C and soldering time not More than 5 seconds, after the first soldering, make sure the substrate surface temperature returns to ambient temperature before a second soldering. Please. make sure when soldering, there is no external force on the soldering surface and silicon batardeau (such as pressure, friction or sharp metal nails, etc.), to avoid gold wire deformation or dam-age and other abnormalities. If beyond recommended conditions, we cannot guarantee the LED stability, please do the risk assessment first. During assembly, please ensure that a good quality thermal paste is applied and distributed evenly over the surface. While using thermal pad (Heat Sink), make sure LED is firmly tightened and there is no gap between surfaces. In such heat-media products, through a pressure test of at least 500 volts.

焊接条件：此产品不推荐使用回流焊接的作业方式，手工焊接烙铁温度设定 350°C，焊接时间不可超过 5 秒，第一焊点焊接后请确保基板表面温度恢复到环境温度，方可进行第二次的焊接。焊接时请注意不可有外力作用于胶体表面及外圈的围堰胶上（如压力，摩擦或锋利金属钉等），以免造成金线变形或断线等异常；如果超出此使用条件，新月光电将不能保证产品的稳定性，如需使用超出的操作条件，请务必进行风险评。为确保在组装时降

低接触热阻，请注意导热膏涂布均匀且分布面积合理，不可出现导热膏太少或涂抹高低不匀等现象。如使用导热胶垫时，请确保螺丝安装后基板与导热胶垫的完全接触，不可存在中空现象。产品在此类耐热介质下，能通过至少500伏的耐压测试。

3. Anti-Static Measures防静电措施:

Please take adequate measures to prevent electrostatic generation, such as wearing electrostatic ring or anti-static fingerstall etc; any relative products like plant equipment, machinery, carrier and transportation units shall be connected to discharging unit/ ground. The ESD sensitivity of this product is $> 1000V$ (HBM), after assembly the final lamp, please make sure to discharge Static Electricity by proper ESD equipment.

请采取足够的措施来防止静电产生，比如带静电环或防静电手指套等；每个制造厂关于产品（工厂、设备、机器、载波机和运输单位）应当连接到底面，请避免产品电气带电；本产品的防静电敏感度超过 $1000V$ (HBM)，装配后的最终灯具产品（S）建议检查是否损坏LED（漏电现象）。

4. Temperature Control温度控制

Recommended temperature conditions for enhanced product life: Be sure to TS point (negative pads) controlled below $85^{\circ}C$, COB recommendation colloid surface temperature control $\leq 150^{\circ}C$.

保证散热前提条件为：请务必将TS点（负极焊盘）控制在 $85^{\circ}C$ 以下，建议胶体表面温度控制 $\leq 150^{\circ}C$ 。

5. The drive control驱动控制

Drive this product at constant current. Output current range specifications should be according to the operational and other conditions, as mentioned in data sheet. Before using a constant voltage source or altered specifications other than recommended, please consider risk factors.

本产品需使用恒流源进行驱动，且输出电流符合规格书上的功率使用范围，如需使用恒压源或其他使用条件，请进行使用效果风险评估。

6. Other其他

Should the product be used outdoors, be sure to IP (protection class) ≥ 65

若本产品在户外使用，请务必将IP(防护等级) ≥ 65

Product is not suitable to use in following conditions

本产品不可在以下条件下使用，如果产品在以下条件下使用，评估其使用效果和风险是有必要的：

-Direct or indirect wet / damp conditions, such as rain, etc.;

-直接或间接的打湿或受潮，比如淋雨等；

-In contact with sea water and erosive materials

-被海水损害或侵蚀；

-Exposed to corrosive gases (e.g., Cl_2 , H_2S , NH_3 , SO_x , NO_x , etc.);

-被暴露于腐蚀性气体(如 Cl_2 , H_2S 、 NH_3 、 SO_x 、 NO_x 等)；

-Exposed to dust, liquids or oils.

-被暴露于粉尘、液体或油。