

Integrated COB

Cxx-14LJ0S-xxxFxxC01

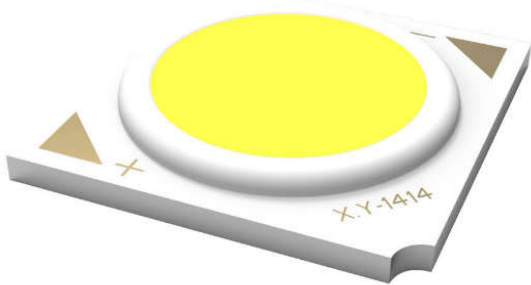
PRODUCT DATA SHEET

产品规格书

CONTENTS

1.Product Nomenclature 产品命名规则	P2
2.Product Introduction 产品描述	P2
3.Mechanical Dimensions 产品外观尺寸	P2
4.Electro Optical Characteristics 光电特性	P3
5.Absolute Maximum Ratings 极限参数	P4
6.Chromaticity Characteristics 色度坐标	P4-5
7.Reliability Test 可靠性测试项目和条件	P5
8.Failure Criteria 对于损害的判断准则	P5
9.Characteristic Curves 特性曲线图	P6
10.User Manuel 使用手册	P7-8

1、产品命名规则



<u>C</u>	<u>xx</u>	<u>14L</u>	<u>J0S</u>	<u>xxx</u>	<u>F</u>	<u>xxC01</u>
[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1]	表示 COB					
[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					80
[7]	表示串并					

2、产品描述

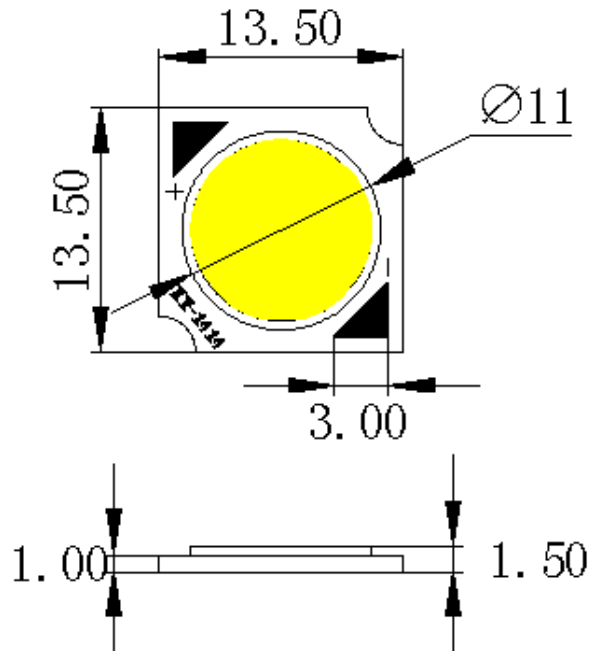
特点

- 高功率、高亮度、高光效
- 发光均匀、柔和
- 台湾晶元晶片、专利保护
- 纯金线 99.99%封装

应用

- ◆ 商业照明
- ◆ 装饰照明
- ◆ 酒店照明
- ◆ 家居照明

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 ±0.25mm。

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
5	C05-14LJ0S-30SF10C01	3000±100	700	30-34	150	136	80-85
	C05-14LJ0S-39SF10C01	3900±150	730			138	
	C05-14LJ0S-54SF10C01	5400±250	760			140	
7	C07-14LJ0S-30SF14C01	3000±100	1050	42-48		130	
	C07-14LJ0S-39SF14C01	3900±150	1080			132	
	C07-14LJ0S-54SF14C01	5400±250	1100			134	
9	C09-14LJ0S-30SF18C01	3000±100	1130	54-61		128	
	C09-14LJ0S-39SF18C01	3900±150	1150			130	
	C09-14LJ0S-54SF18C01	5400±250	1170			132	
12	C12-14LJ0S-30SF24C01	3000±100	1425	72-82		126	
	C12-14LJ0S-39SF24C01	3900±150	1450		128		
	C12-14LJ0S-54SF24C01	5400±250	1470		130		
15	C15-14LJ0S-30SF30C01	3000±100	1780	90-102	126		
	C15-14LJ0S-39SF30C01	3900±150	1800		128		
	C15-14LJ0S-54SF30C01	5400±250	1830		130		
18	C18-14LJ0S-30SF36C01	3000±100	2130	108-122	126		
	C18-14LJ0S-39SF36C01	3900±150	2150		128		
	C18-14LJ0S-54SF36C01	5400±250	2180		130		

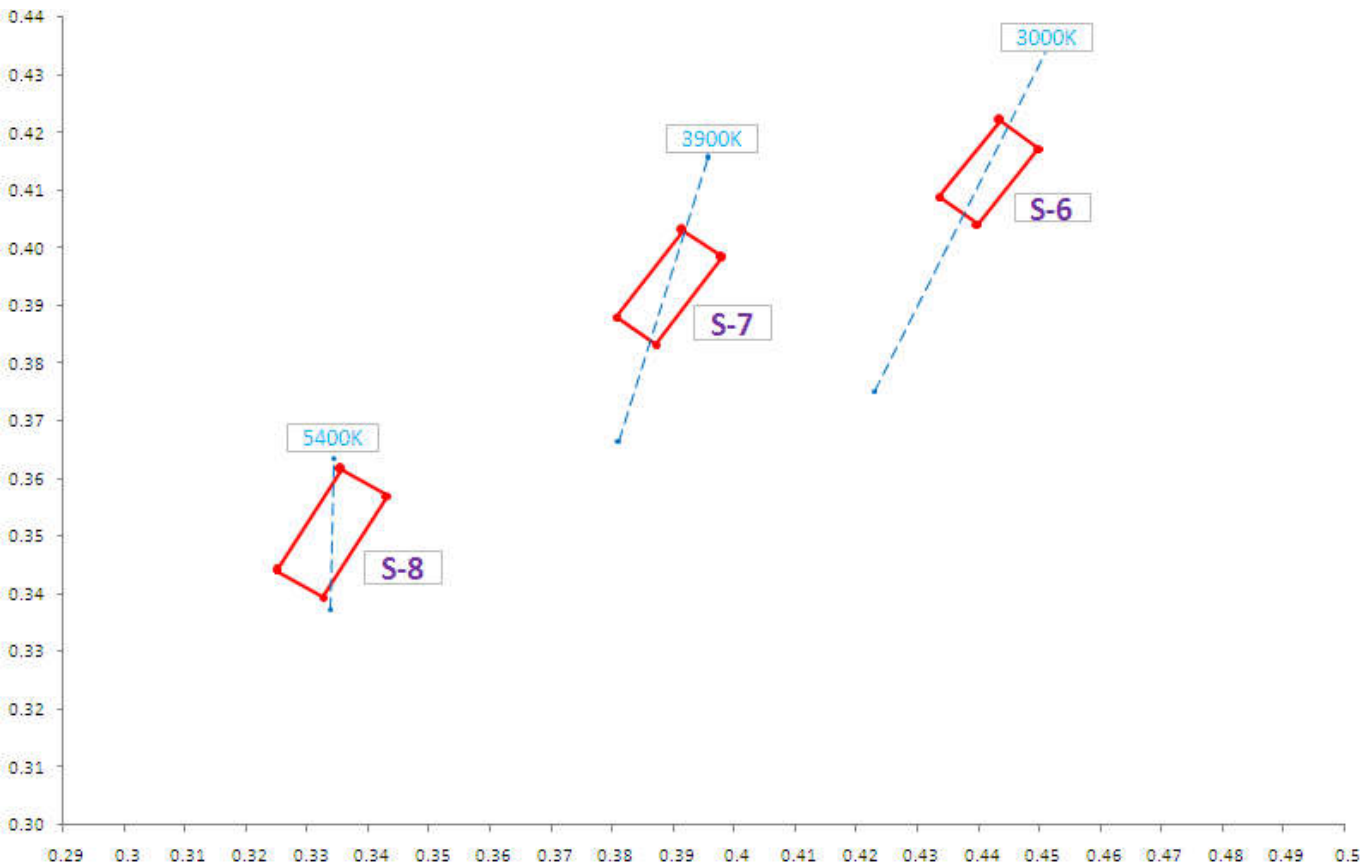
5、Limit Parameters 极限参数 (Ta=25°C)

Parameter 项目	Symbol 符号	Rating 参数	Unit 单位
Forward Current 正向电流	I _F	150	mA
Junction Temperature 结温	T _J	115	°C
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°C To +75°C	
Soldering Temperature 手工焊接温度	T _{SOL}	300°C± 20°C 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°C)



色温范围	X	Y	色温范围	X	Y	色温范围	X	Y
3000±100K	0.4335	0.4089	3900±150K	0.3806	0.3880	5400±250K	0.3249	0.3440
色区代码	0.4435	0.4221	色区代码	0.3915	0.4031	色区代码	0.3355	0.3616
S-6	0.4499	0.4173	S-7	0.3980	0.3984	S-8	0.3431	0.3571
	0.4399	0.4041		0.3871	0.3833		0.3325	0.3394

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℃ IF=150mA	1000H	10	0/1
2	Low/High Temperature Storage Test 冷热冲击	-40℃/30min~ +125℃/30min	200 Cycles	22	0/1
3	High Temperature Operation Test 高温测试	Ta=85℃±5℃ IF=150mA	1000H	10	0/1
4	Moisture-proof Test 高温高湿测试	85℃/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

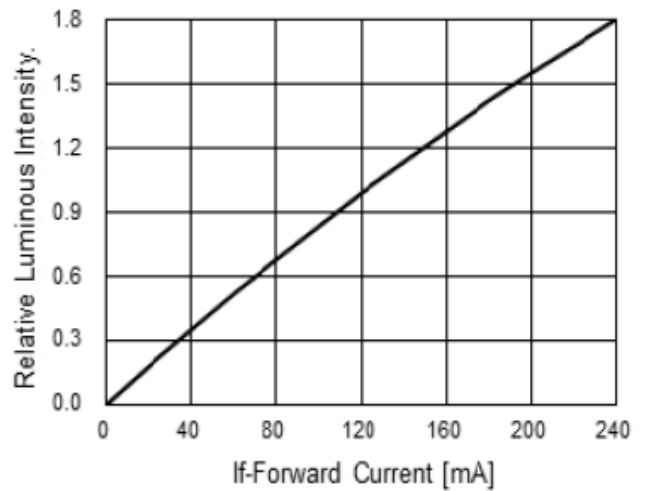
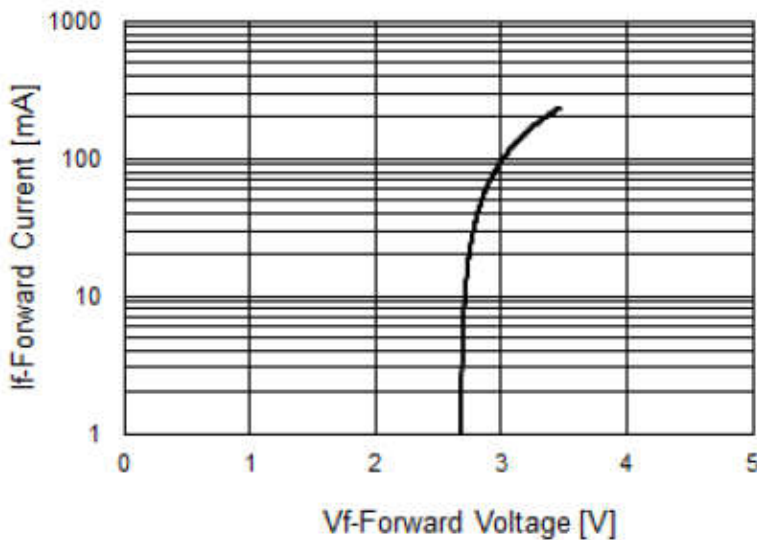
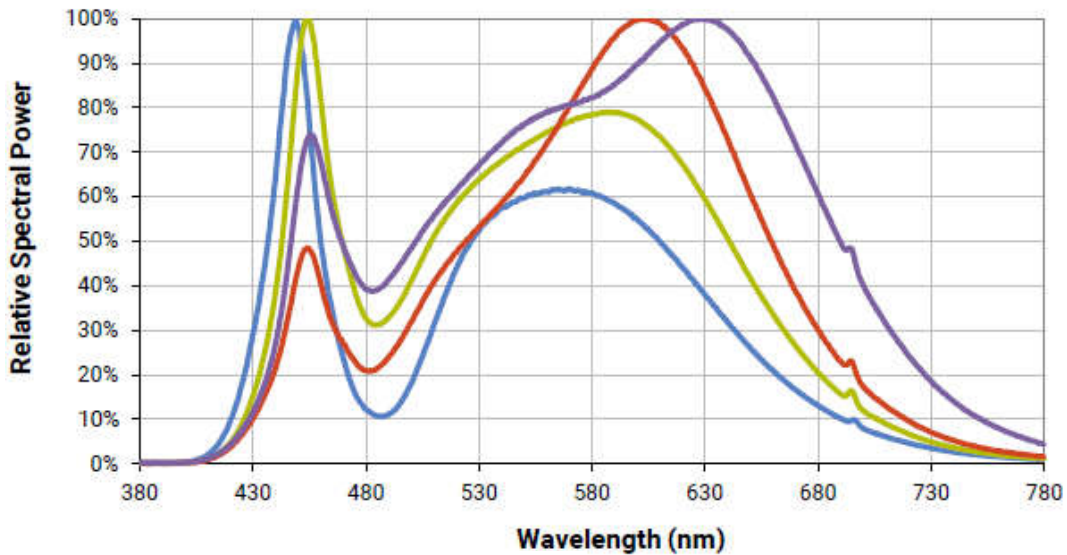
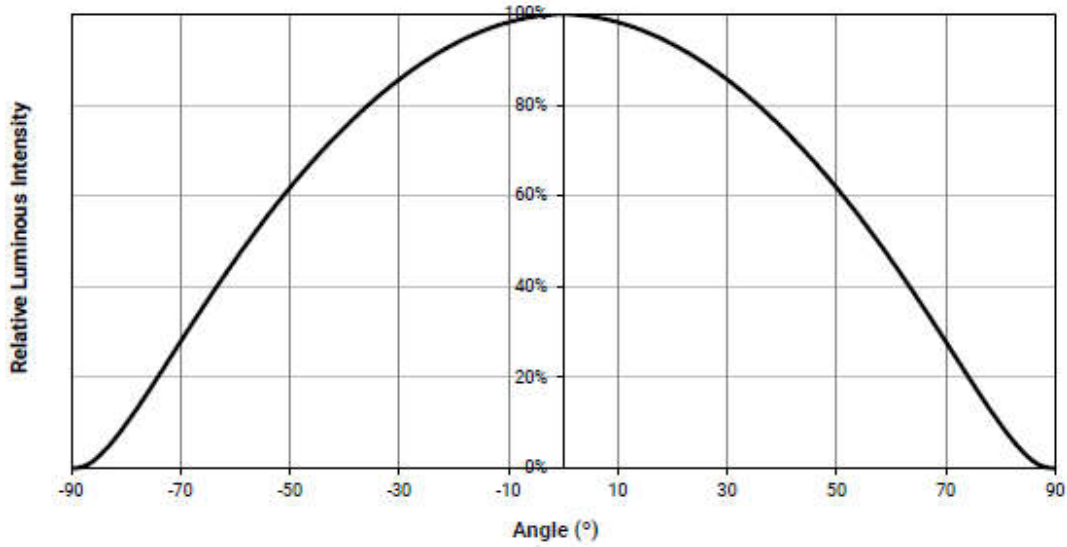
Measuring Items 项目	Symbol 符号	Measuring Conditions 测试条件	Failure Criteria 范围	
			Min.	Max.
Total Luminous Flux 光通量	Φ	IF=150mA	L.S.L*0.8	-----
Forward Voltage 正向电压	VF	IF=150mA	-----	U.S.L*1.1

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



Forward Current vs. Forward Voltage

Relative Luminous vs. Flux Forward Current

10、User Manuel 使用手册

1. Storage 储存

To avoid moisture, we recommend storage conditions for the unopened LED +5 ~ +30 °C, relative 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 soldering 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 damage 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，请务必进行风险评估。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 °C, COB recommendation colloid surface temperature control ≤180 °C.

保证散热前提条件为：请务必将TS点（负极焊盘）控制在85°C以下，建议COB胶体表面温度控制≤180°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., Cl₂, H₂S, NH₃, SO_x, NO_x, etc.);

-被暴露于腐蚀性气体(如 Cl₂,H₂S、NH₃、SO_x、NO_x等)；

-Exposed to dust, liquids or oils.

-被暴露于粉尘、液体或油。