



20W COB LED

特性 Features

节 能	Energy saving
寿命长	Long lifespan
响应速度快	High response speed
环 保	Environmental friendly

应用 Applications

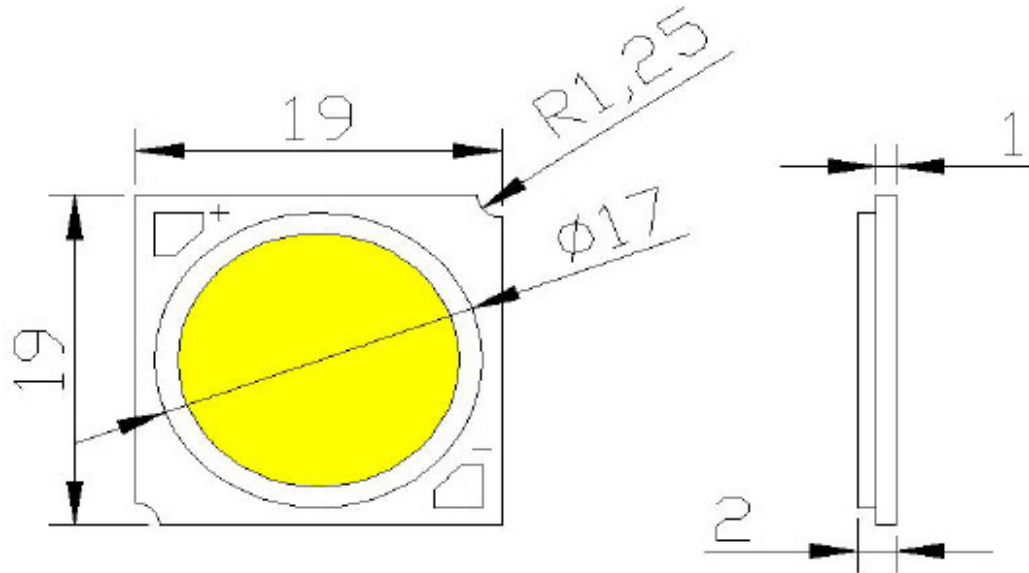
普通照明	General Lighting
广 告 灯	Advertisement lighting
建筑照明	Architectural Lighting
路 灯	Street Lighting

主要材质 Main Materials

芯片材料 Wafer Material	InGaN/InGaAlN/AlGaInP
封装材料 Package Material	硅胶 Silicon
支架引脚材料 Chip Bracket Material	表面喷锡的超导铝板 Tin & Aluminum
固晶底胶 Dia-bonding Glue	锡膏 Tin

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外观尺寸 Product Measurement



注意:

- | | |
|----------------------|--|
| 1. 所有尺寸以毫米为单位; | All dimensions are in millimeters; |
| 2. 公差为: 0.25; | Tolerance is 0.25 unless otherwise stated; |
| 3. 在安装过程中一定要做好防静电措施。 | Pay attention to static during installation. |





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光电参数 Electro - Optical Characteristics Ta=25℃

参数 Parameter	符号 Symbol	条件 Condition	显指 CRI	最小值 Min	平均值 Avg	最大值 Max	单位 Units
正向电压 Voltage	VF	IF=300mA	/	60	-	68	V
光通量 Luminous Flux	Φ	CCT:6000-6500					
		CCT:4000-4500					
		CCT:3000-3200					
反向漏电流 Reverse Current		VR=100V	-	-	-	5	uA

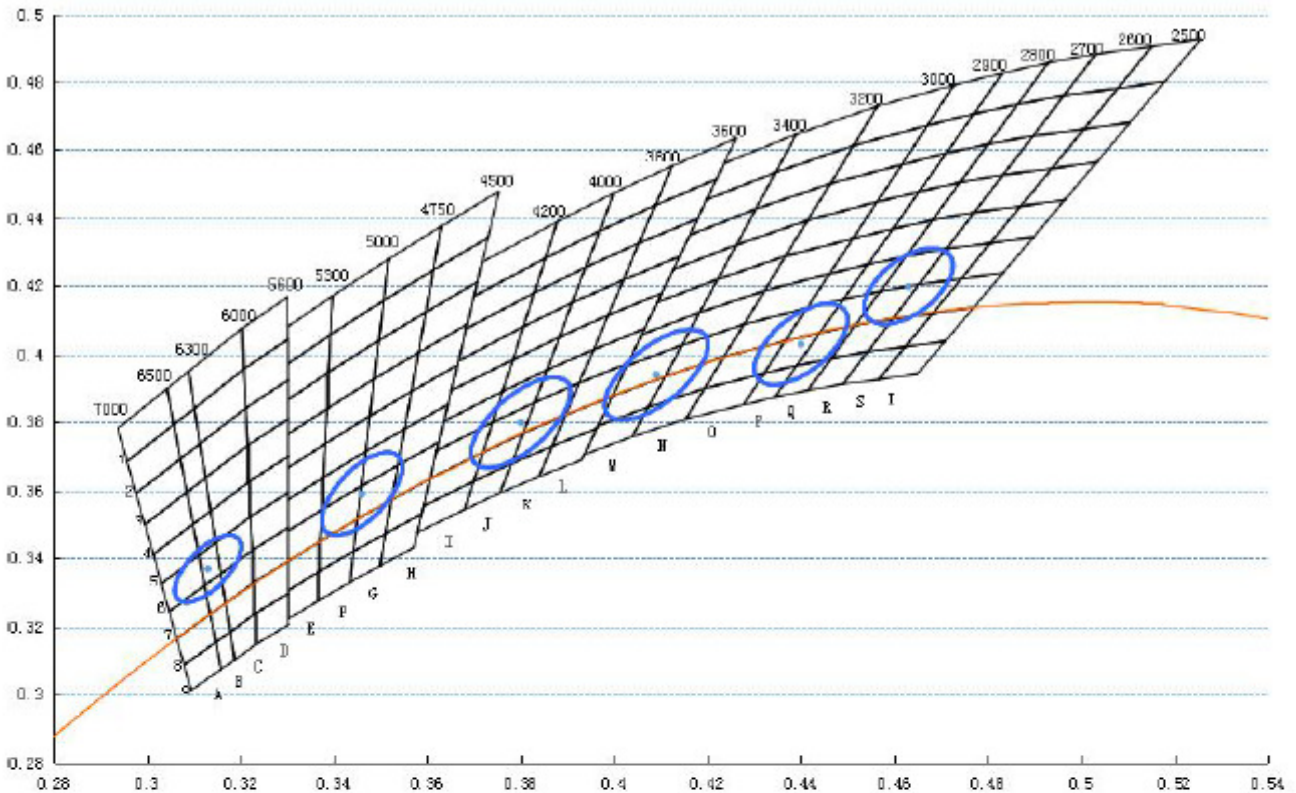
极限参数 Limitation Data Ta=25℃

参数 Parameter	符号 Symbol	数值 Value	单位 Units
反向电压 Reverse voltage	VR	100	V
正向电流 Continuous Forward Current	IF	300	mA
工作温度 Operating Temperature Range	TOPR	-30 TO +60	℃
储存温度 Storage Temperature Range	TSTG	-30 TO +85	℃
手工焊接温度 Manual Soldering Temperature	TSLD	350℃ for 3sec	℃
功耗 Power Dissipation	PD	20	W
峰值正向电流 Pulsed Forward Current	IFP	300	mA
静电承受极限 ESD Sensitivity	ESD	2000	V



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色区参考图 The color map



中心色温 CCT	2700K	3000K	3500K	4000K	5000K	6500K
X	0.463	0.44	0.409	0.38	0.346	0.313
Y	0.42	0.403	0.394	0.38	0.359	0.337

备注/Postscript:

正向电压允许误差 $\pm 0.05V$. Tolerance of measurement of V_f is $\pm 0.05 V$.

光通量允许误差 $\pm 5\%$. Luminous Intensity Measurement allowance is $\pm 5\%$

色温误差范围 $\pm 100K$. Colour Temperature Measurement allowance is $\pm 100K$

显色指数允许误差-1. Color Rendering Index Measurement allowance is -1

参数仅为灯珠测试数据,应用于成品后会有变化. Parameter is base on light source only, finish product will have difference

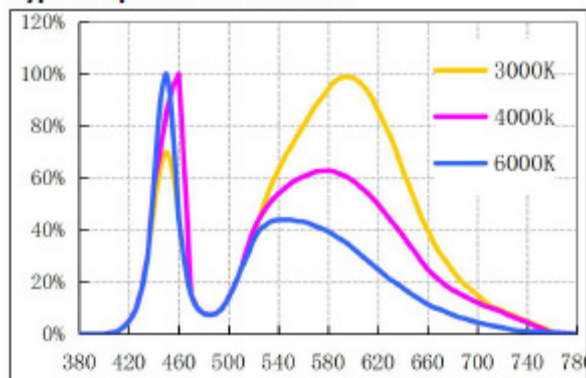


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典型特性曲线/Typical Characteristic Curves

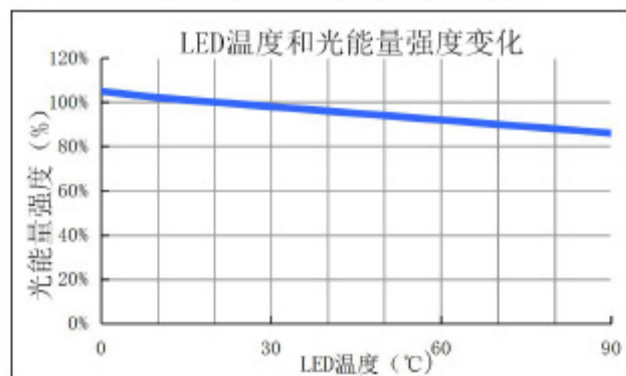
(1) . 典型光谱分布

Typical spectral distribution



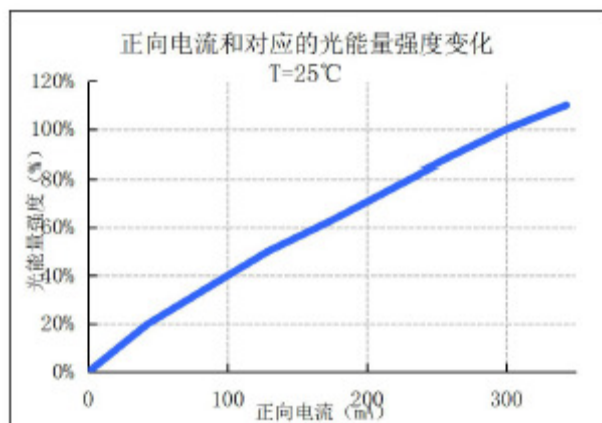
(2) . 输出光通量与温度曲线

Relative Luminous Flux & Temperature



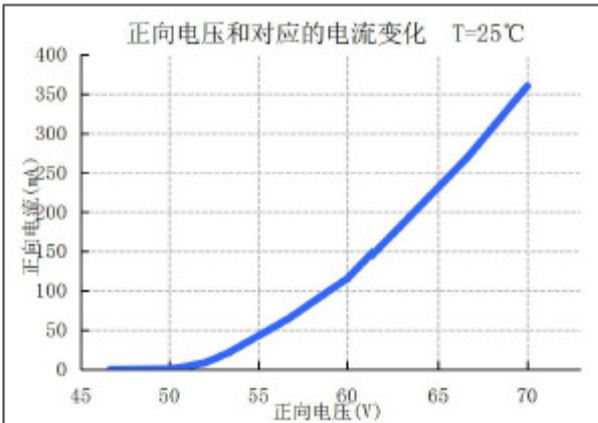
(3) . 正向电流与相对光通量曲线图

Forward Current & Relative Luminous Flux Curve

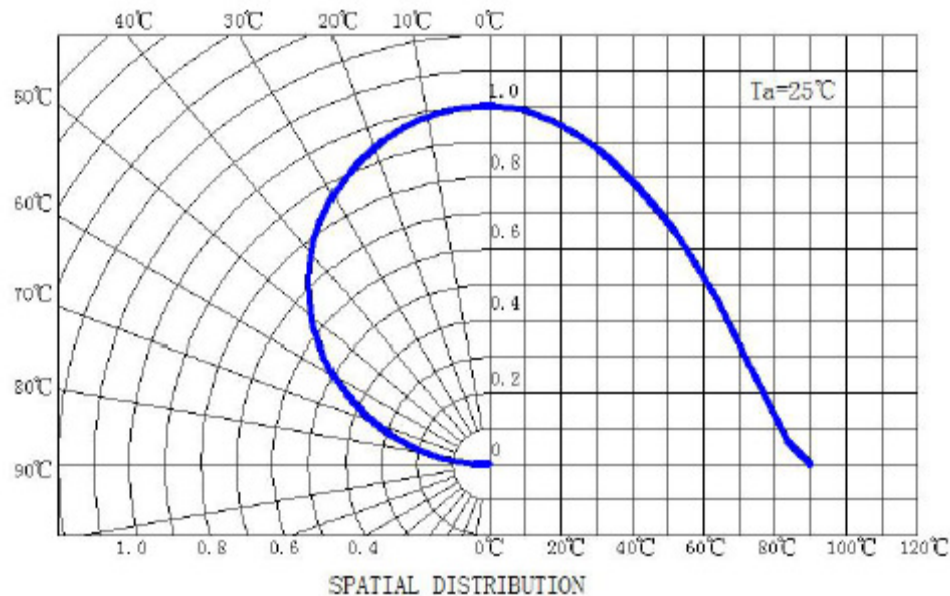


(4) . 电性特征曲线图

Electrical Characteristics Curve



(5) 光通量分布图 Luminous Flux distribution map





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可靠性测试 Reliability Test

项目 Test Items	测试条件 Test Condition	时间 Time	数量 Quantity	接收/拒收 Ac/Re
常温通电 Life Test	Ta=25℃±5℃ IF=300mA	1000Hrs.	22Pcs.	0/1
温度循环 Temperature Cycle	100℃±5℃ 30 min. ↑↓5 min -40℃±5℃ 30 min.	100 Cycles.	22Pcs.	0/1
高温操作 High Temperature Operation	Temp:85℃±5℃ IF=300mA	1000Hrs.	22Pcs.	0/1
低温操作 Low Temperature Operation	Temp:-40℃±5℃ IF=300mA	1000Hrs.	22Pcs.	0/1
高温高湿通电 High Temperature High Humidity Life Test	85℃±5℃/ 85%RH IF=300mA	1000Hrs.	22Pcs.	0/1

失效判定标准 Failure Standard

项目 Test Items	测试条件 Test Condition	判定标准 Failure Standard	
		Min. 最小	Max. 最大
正向电压 Forward Voltage	IF=300mA	/	U.S.L*)x1.1
反向电流 Reverse Current	VR=100V	/	U.S.L*)x2.0
光通量 Luminous Flux	IF=300mA	L.S.L*)x0.7	/



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产品注意事项: Notice of product

产品运输 Product transportation

适用范围: 所有产品;

Range of application: all products;

LED 产品在运输过程中, 需保持正面朝上, 防潮防水, 运输过程中避免挤压、碰撞和剧烈震动。

LED products should be kept upside down, moisture-proof and waterproof during transportation and avoid extrusion, collision and severe vibration during transportation.

产品储存及期限 Product storage and time limit

室温密封存储: 20℃~40℃, 40%~60%RH;

Sealed storage at room temperature: 20 ~ 40 C, 40% ~ 60%RH;

防潮密封存储: 20℃~30℃, 25~60%RH;

Moisture proof sealed storage: 20 ~ 30 C, 25 ~ 60%RH;

产品拆开封后, 建议 24 小时内使用完成, (环境条件温度<30℃, 湿度<60%)。

when the product is unpacked, it is recommended to be completed within 24 hours (workshop temperature <30, <60%).

除湿处理 Dehumidification

LED 产品超出以上规定期限, 或者由于其他原因受潮, 建议客户做除湿处理后再使用。

LED products exceed the prescribed time limit, or because of other reasons, it is recommended that customers do dehumidification treatment before use.

除湿方法: 70℃/22±2 小时。

Dehumidification method: 70 /22 + 2 hours.

驱动电源配置 Drive power supply configuration

LED 产品在使用前, 需根据使用 LED 光源产品额定电流电压合理配置恒流恒压驱动电源。建议使用驱动电源空载电压不高于 LED 光源负载电压 1.2 倍。

Before using the LED products, the constant current and constant voltage drive power shall be reasonably configured according to the rated current and voltage of the LED light source. Suggested the NON-Load Voltage of driver is NO higher than 1.2 times of the LED Load Voltage.



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结温极限及散热处理 Junction temperature limit and heat dissipation treatment

LED 产品在使用过程中，请保证必要的散热设计（焊点温度 $\leq 85^{\circ}\text{C}$ ），且 LED 散热面需均匀涂抹散热硅脂，并紧密贴合散热器件，如散热不足，LED 内部结温超过 125°C ，将降低光效及影响 LED 的使用寿命。
During the use of LED products, please ensure the necessary heat dissipation design (solder joint temperature is less than 85 degrees Celsius), and LED heat sink should be evenly smeared.
Silicone grease and tightly fit heat dissipating devices, such as insufficient heat dissipation, LED internal junction temperature exceeding 125 degrees, will reduce the light efficiency and affect the life of LED.

静电防护 Electrostatic protection

LED 是静电敏感器件，虽然 LED 产品具有优异的抗静电能力，但每经历一次静电释放产生的冲击，都会对 LED 造成一定程度的损坏。因而在使用 LED 产品过程中需要做好静电防护措施，例如佩戴防静电手套及防静电手环。
LED is an electrostatic sensitive device. Although the LED product has excellent antistatic ability, every time it experiences an impact caused by electrostatic discharge, it has all the effects.
It will cause a certain degree of damage to LED. Therefore, electrostatic protection measures are needed in the process of using LED products.
For example, wear anti - static gloves and anti - static ring.

手动焊接操作指引 Manual welding operation guidance

建议焊接时电烙铁在支架引脚上停留时间不超过 5 秒，如需要反复焊接时，间隔停留时间不少于 2 秒，避免长时间高温对 LED 造成损伤。焊接过程中，请勿触摸或挤压 LED 的功能区表面，避免对 LED 内部造成损伤，同时请注意避免电烙铁对 LED 表面胶体的烫伤及其它损伤。
It is recommended that the solder iron stay on the support pin when welding is less than 5 seconds, and if the welding is repeated, the interval residence time is not less than 2 seconds.
Avoid long time high temperature damage to LED. During welding, do not touch or squeeze the surface of the functional area of LED to avoid internal LED.
It is also important to avoid the scalding and other injuries caused by electric iron on the surface of LED.

其它 Other

使用的 LED 矩阵驱动器，要确保反向电压不会超过最大额定值，LED 的光输出强度足以让人的眼产生不适，必须采取预防措施，以保障直视 LED 不超过几秒钟。发现产品缺陷后，用户应告知我们，不得自行对 LED 解剖和分析等的反向工艺。

The LED matrix driver is used to ensure that the reverse voltage does not exceed the maximum rated value. The intensity of the LED output is enough to cause eye problems.

Appropriate precautions must be taken to ensure that direct LED is not more than a few seconds. After finding the product defect, the user should inform us that we should not do it ourselves.

LED anatomy and analysis and other reverse processes.