

D04-B4-Z14-RGBW

PRODUCT DATA SHEET

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1, Product Nomenclature 产品命名规则



<u>D</u>	<u>04</u>	<u>B4</u>	<u>Z14</u>	<u>RGBW</u>	<u>1C4</u>
[1]	[2]	[3]	[4]	[5]	[6]
[1]	High Power LED		表示单颗仿流明产品		
[2]	Power 4W		表示功率 4W		
[3]	Substrate		表示支架普通八脚 RGBW 支架		
[4]	Chip		表示芯片规格		
[5]	Nominal CCT		表示颜色/波长		
[6]	Die count in series & parallel		表示串并 1 串 4 并		

2、Product Introduction 产品描述

Features 特点

- High luminous efficacy 高亮度、低衰减
- Horizontal Chip Encapsulation 水平结构芯片
- Au≥99.99%金线
- Copper Substrate 纯铜支架

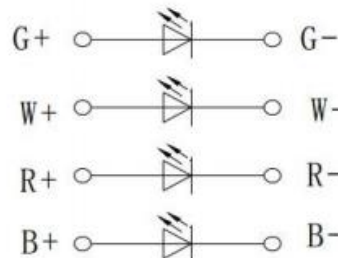
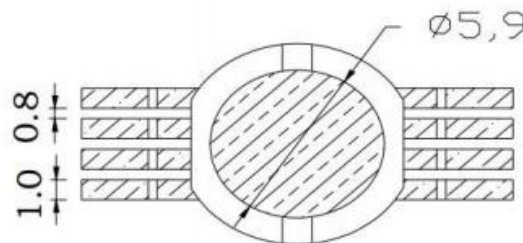
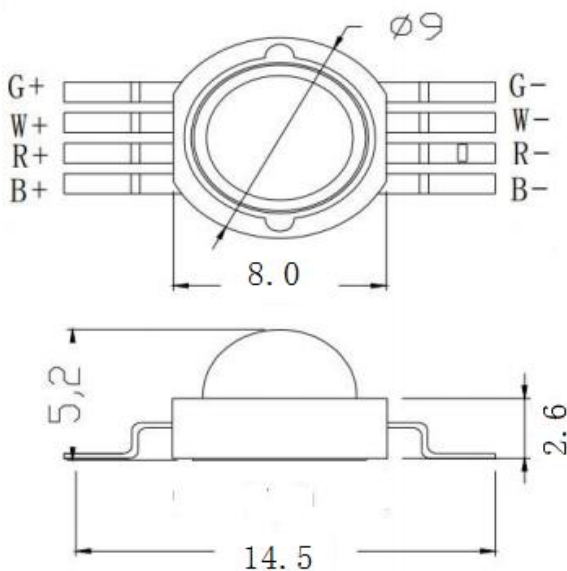
Application 应用

- ◆ Commercial lighting 商业照明
- ◆ Decorative lighting 装饰照明
- ◆ Outdoor lighting 户外照明

3、

3、Mechanical

Dimensions 产品外观尺寸



备注：1、Unit: mm 所有尺寸以毫米为单位。

2、Tolerances unless otherwise specified±0.25 所有未注公差为±0.25。

4、Electro Optical Characteristics 电性参数(Ta=25°C)

Item No.型号	Parameter 参数	Min 最小值	Spec.Value 典型值	Max 最大值	Unit 单位
D04-B4-Z14-RGBW (4W)	Luminance Flux-Red 光通量-红	40	---	70	Lm
	Luminance Flux-Green 光通量-绿	80	---	100	
	Luminance Flux-Blue 光通量-蓝	10	---	20	
	Luminance Flux-white 光通量-白	100	---	110	
	Wave length-Red 主波长-红	620	---	630	nm
	Wave length-Green 主波长-绿	520	---	530	
	Wave length-Blue 主波长-蓝	460	---	470	
	CCT-white 色温-白光	6000	---	8000	K
	Forward voltage-Red 正向电压-红	2.0	---	2.4	V
	Forward voltage-Green 正向电压-绿	3.0	---	3.4	
	Forward voltage-Bule 正向电压-蓝	3.0	---	3.4	
	Forward voltage 正向电压-白	3.0	---	3.4	
	DC Current 直流正向电流	---	350	400	mA
	Angle 发光角度	---	140	---	°

5、Property parameters 使用时的特性参数(Ta=25°C)

Parameter 项目	Symbol 符号	Parameter 参数	Unit 单位
连续顺向电流	I _F	350	mA
Junction Temperature LED 结点温度	T _J	115	°C
Reverse Voltage 反向电压	V _R	5	V
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	
Thermal Resistance 热阻	R _{th}	10	°C/W

Note 备注:

- 1、luminous flux ±10%光通量的测量公差为±10%
- 2、forward voltage±0.1V,正向电压测试公差为±0.1V

6、Reliability Test 可靠性测试项目和条件

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	T _a =25°C I _F =350mA	1000H	50	0/1
2	Low/High Temperature Storage Test 冷热冲击	-40°C/1H +125°C/1H	50 Cycles	50	0/1
3	High Temperature Operation Test 高温测试	T _a =85°C±5°C I _F =350mA	48H	50	0/1
4	Moisture-proof Test 高温高湿测试	85°C/85%RH	48H	50	0/1
5	ESD Test 抗静电测试	2000V HBM	1 Minute	50	0/1

7、Failure Criteria 对于损害的判断的准则

项目	符号	测试条件	范围
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			Min.	Max.
Total Luminous Flux 光通量	Φ	IF=350mA	L.S.L*0.8	-----
Forward Voltage 正向电压	VF	IF=350mA	-----	U.S.L*1.1
Reverse Leakage Current 反向漏电电流	IR	VR=5V	-----	U.S.L*2.0

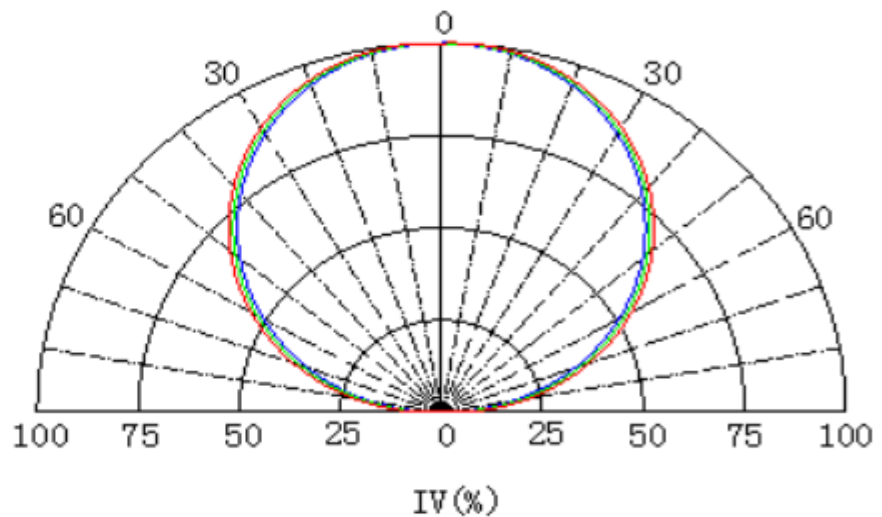
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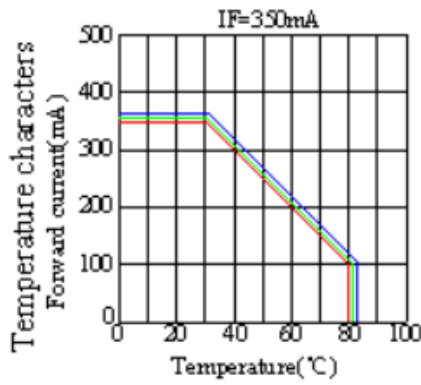
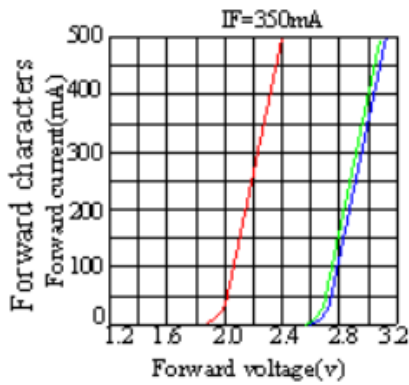
L.S.L : Low Standard 较低的标准水平

U.S.L : High Standard 较高的标准水平

8、Characteristic Curves 特性曲线图

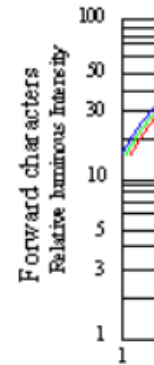
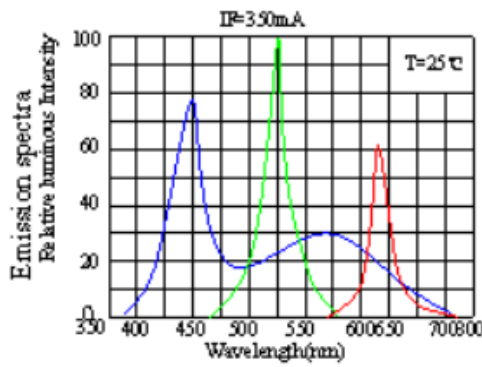
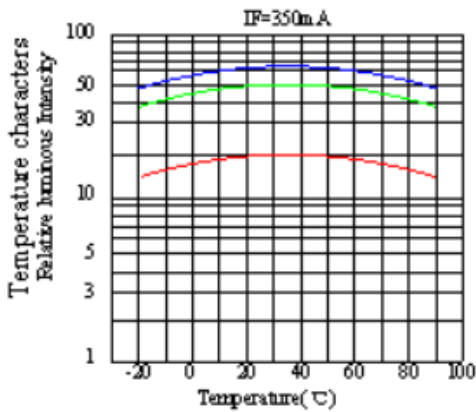
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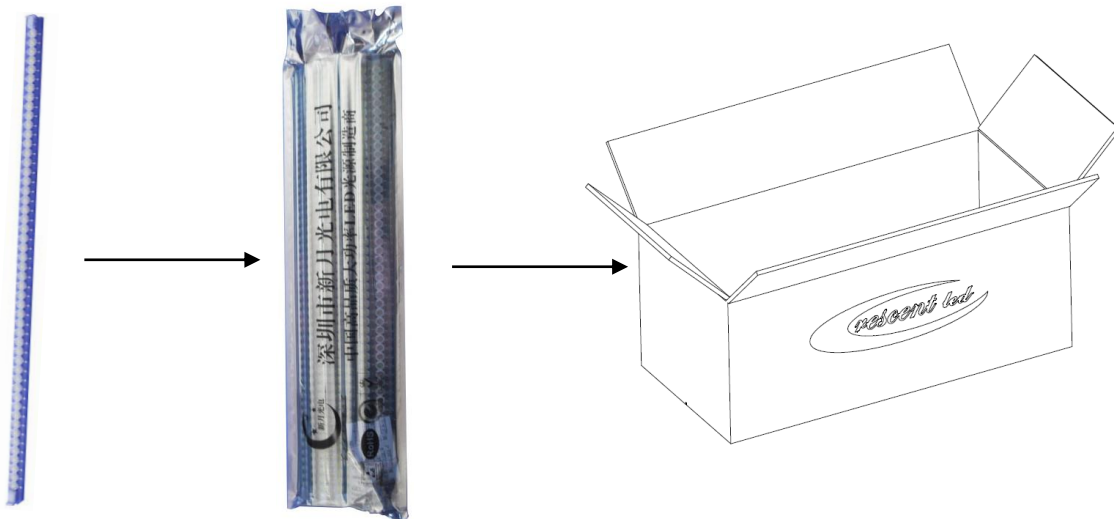
Notes:

The data are of the product service for information. The product is antistatic and we recommend you to use the products in a bag package.



9、Packing Specification 产品包装说明

Pipe Dimension 料管尺寸	Pipe Layout 装箱方式	Carton Size 外箱尺寸	Qty./Pipe 每料管数量	Qty./CTN. 每箱总数	G.W. 毛重
420*17*8	1*50*20*10	450*210*180	50pcs	10000pcs	8.6KG



unit:mm

10、User Manuel 使用手册

Storage LED 的装运与保存:

- 1) Storage and storage conditions: The ambient temperature is between 20-25 °C and the humidity is within the range of 40% RH-60% RH. Keep it clean and avoid foreign matter such as dust entering the lens or adhering to the surface of the silica gel to cause pollution and affect the light output.

储存存放条件: 环境温度在 20-25°C 之间, 湿度在 40%RH-60%RH 范围内。保持清洁, 避免灰尘等异物进入透镜或粘附硅胶体表面造成污染, 影响出光效果。

- 2) Avoid contact with corrosive chemical gases and substances (such as substances containing sulfur, halogens, etc.), high humidity or acidic environment during storage. HIGH POWER series LED products are recommended to be stored in moisture-proof cabinets. 避免保存过程中接触腐蚀性化学气体和物质(如含硫素、卤素等物质)、高湿度或酸性环境中, HIGH POWER 系列 LED 产品建议存放于防潮柜中。

- 3) During the shipment, storage and assembly process, HIGH POWER series LED products must prevent multi-layer pressure, impact and drop damage. Special reminder: It is strictly forbidden to damage the Lange-type LED lens and integrated product illuminating area due to external force, and prevent external LED products. The potential damage caused by the use of abnormalities.

HIGH POWER 系列 LED 产品在装运、保存和装配过程, 必须防止多层叠压、撞击和跌落损伤, 特别提示: 严禁因外力对朗柏型 LED 透镜、集成产品发光区域造成损伤, 预防因外力对 LED 产品造成的潜在损伤, 导致使用异常。

- 4) Customers are advised to use moisture-proof cabinets for storage and storage of high-power series LED products.

建议客户采用防潮柜进行高功率系列 LED 产品存放保存。

High power product instructions:单颗光源产品使用说明:

- 1> It is recommended to use a soldering iron with a power lower than 20W. The temperature must be kept below 360 °C during soldering. Avoid multiple soldering. The soldering time should not exceed 3 seconds. If the LED product is damaged during the soldering operation, care should be taken.

推荐使用功率低于 20W 的烙铁, 焊接时温度必须保持在 360°C 以下, 避免多次焊接, 每次焊接时间不可超过 3 秒; 人为焊接操作过程中易引起 LED 产品的损坏, 应当小心谨慎。

- 2> It is recommended to use lead-free reflow soldering. The temperature setting is up to 180 °C ± 10 °C (the daily temperature of the tunnel furnace temperature zone needs to be measured daily). The peak temperature time is prohibited for more than 45 seconds. Over temperature and overtime will cause the lens to fall off and deform. . Do not apply any pressure to the product during the reflow process. After the soldering is completed, the product is subjected to other treatment after the temperature of the product drops to room temperature.

推荐使用无铅回流焊, 温度设定最高为 180°C±10°C(需对隧道炉温区实际温度进行每日测量), 峰值温度时间禁止超过 45 秒, 超温、超时会导致透镜脱落、变形。回流焊过程中请不要对产品施加任何压力, 焊接完成后待产品温度下降到室温后在对产品进行其它处理。

- 3> It is recommended to use alcohol for cleaning after welding. Wash with a small amount of alcohol in a dust-free cloth at a temperature not higher than 30 °C. The time should not exceed 3 minutes, and not more than 30 seconds at 50 °C.

焊接后推荐使用酒精进行清洗, 在温度不高于 30°C 条件下用无尘布蘸少量酒精清

洗，时间不可超过 3 分钟，不高于 50°C条件下 30 秒。

4> Different solder pastes are used (the solder paste equipment is not clean thoroughly), and different types of products (different glue components) cannot be cross-mixed (full exhaust in the tunnel furnace temperature zone) to avoid chemical reactions of different substances and damage to LED products.

采用不同锡膏（刷锡膏设备清洁不彻底）、不同类型产品（胶水成份不同）不可交叉混用（隧道炉温区内需充分排气），避免不同物质产生化学反应，对 LED 产品造成损坏。