



YIXING WESTECH  
OPTO-ELECTRONIC SCIENCE AND TECHNOLOGY CO., LTD

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**SPECIFICATION FOR WESTECH LED LAMP**

产品名称 Document No: \_\_\_\_\_

产品型号 Model No: 5RB9SW2-A

版本 Rev.No: \_\_\_\_\_

日期 Date: 2009 /6 /05

Confirmed	
by Customer :	_____
客户回签	
Date:	_____
日期	

电话 TEL: 0510-87343368 EXT:8012

传真 FAX:0510-87345220

Email: 888@dgdz. com

[Http://](http://www.dgdz.com) www. dgdz. com

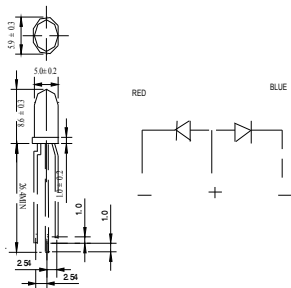
地址:

ADD: 8# Changling Road, zhangzhu Town, Yixing City, Jiangsu, China





# Package Dimensions(unit:mm) 封装尺寸(单位:mm)



## Notes:

1. All dimension units are millimeters.

尺寸单位:毫米.

2. All dimension tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted.

另有标注除外,允许误差: $\pm 0.2\text{mm}$

3. An epoxy meniscus may extend about 1.5mm down the leads.

环氧树脂的弯月面可延伸至支架 1.5mm以下

4. Burr around bottom of epoxy may be 0.5mm max.

允许树脂底部胶体可多出0.5mm.

Part Number 产品型号	Emitting Color 发光颜色	Emitting Material 发光材质	Lens-color 胶体颜色
<b>5RB9SW2-A</b>	红蓝双色共阳	GaAsP/GaN	White Diffused

## Typical Optical/ Electrical Characteristics (Ta=25°C)(在25°C环境下电性/光学特性)

Item 项目	Symbol 符号	Condition测试 条件	Min. 最小 值	Typ. 中间 值	Max. 最大 值	Unit 单位
Forward Voltage 正向电 压	VF	IF=20mA	1.8	2	2.4	V
			2.8	3	3.4	
Forward Voltage 正向电 压	VF	IF=5mA				V
Reverse Current 反向电 流	IR	Vr=5V			10	uA
50% Power Angle 发光角 度	2θ1/2	IF=20mA		45		deg
Luminous Intensity 发光亮 度	mcd	IF=20mA	25	35	50	mcd
			150	200	250	
Dominant Wavelength 主波 长	λ d	IF=20mA	635	640	645	nm
			465	468	472	
Peak Wavelength 峰值波 长	λ p	IF=20mA				nm



### ■ Absolute Maximum Ratings at =25℃ (在25℃环境下之绝对最大额定值)

Item 项目	Symbol 符号	Absolute Maximum Rating 最大绝对额定值	Unit 单位
Forward Current 正向电压	IF	30	mA
Peak Forward Current* 正向电流峰值	IFP	100	mA
Reverse Voltage 反向电压	VR	5	V
Power Dissipation 功率消耗	PD	80/170	mW
Electrostatic discharge 防静电电压	ESD	2000	V
Operation Temperature 操作温度	Topr	-25 ~ +80	℃
Storage Temperature 贮存温度	Tstg	-40 ~ +80	℃
LeadSoldering Temperature* 焊 接时间	Tsol	Max. 260℃ for 5sec Max.	

#### Notes:

1. Absolute maximum ratings Ta=25℃. (在25℃环境下之绝对最大额定值).
2. Tolerance of measurement of forward voltage±0.2V. 正向电压误差:±0.2V.
3. Tolerance of measurement of peak Wavelength±2.0nm. 峰值波长误差:±2.0nm.
4. Tolerance of measurement of luminous intensity±15%. 发光亮度误差:±15%.
5. Electrostatic sensitive device. When handling, please use anti-electrostatic gloves.  
使用时请戴上防静电手套.
6. Please do not apply stress to the resin at high temperature.  
高温时不能对树脂使用太大压力.
7. Color bin grading is available for special applications.  
分光分色等级也适用于特殊用途.

\* Pulse width≤0.1msec duty≤1/10 1 / 10 周期, 0.1 ms脉宽.

### ■ Criteria for judging the damage 损伤判定标准

Item 项目	Symbol 符号	Test Conditions 测试条件	Criteria for judgement(判定标准)	
			Min	Max
Forward Voltage	VF	IF=20mA	---	U.S.L.* )×1.1
Reverse Current	IR	Vr=5V	---	U.S.L.* )×2.0
Luminous Intensity	IV	IF=20mA	L.S.L.* )×0.7	---

U.S.L.\*): Upper Standard Level 上限标准

L.S.L.\*): Lower Standard Level 下限标准





\*IFP Conditions: Pulse Width  $\leq 10\text{msec}$  duty  $\leq 1/10$

\*T<sub>sol</sub> Conditions: 3mm from the base of the epoxy bulb

## ■ Reliability Performance (可靠性测试)

### 1. Test Items And Result (测试项目及测试结果)

Test Classification	Test Item	Test Conditions	Test Duration	Sample QTY
Life Test 寿命测试	Room Temperature DC Operating Life Test	Ta=25°C±5°C IF=20mA	1000 hrs	30pcs
Environment Test 环境测试	Thermal Shock Test	-10°C±5°C $\leftrightarrow$ +100°C±5°C 5min. 10sec. 5min.	50 cycles	30 pcs
	Temperature Cycle Test	-40°C±5°C $\leftrightarrow$ 25°C ±5°C $\leftrightarrow$ +85°C±5°C 30min. 5min. 30min.	50 cycles	30 pcs
	High Temperature & High Humidity Test	Ta=85°C±5°C RH =85%±0.5 %RH	1000 hrs	30 pcs
	High Temperature Storage	Ta=100°C±5°C	1000 hrs	30 pcs
	Low Temperature Storage	Ta=-55°C±5°C	1000 hrs	30 pcs
Mechanical Test 机械测试	Resistance to Soldering Heat	Ta=230°C±5°C	5sec.	30 pcs
	Lens Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~ 0°	3times	30 pcs

Items	Signatures	Date
Prepared by 制作		
Checked by 审核		
Approved by 核准		
FCN#		

Revision History		
Rev.No	Date	