

产品规格书

SPECIFICATION FOR APPROVAL

CUSTOMER 客户名称		MODEL NO. 产品型号	GT-P6PRGB4303
SAMPLE DATE 送样日期	2014-1-14	DESCRIPTION 产品描述	3W6脚RGB

CUSTOMER AUTHORIZED SIGNATURE 客户承认签核		

Please return to us one copy of "SPECIFICATION FOR APPROVAL"

With you approved Signature.

客户签字确认、盖章后请回传一份承认书我司。

ENGINEERING DEPARTMENT 工程部		
APPROVED 核准	CHECKED 审核	PREPARED 制定



Description

产品描述

Features.特性:

- ◆ Super high Flux output and high Luminance 高亮度、高发光效率
- ◆ Designed for high current operation 专为高电流工作而设计
- ◆ Low thermal resistance: 4°C/W 热阻低: 4°C/W
- ◆ SMT solder bility SMT焊接通透性
- ◆ RoHS compliant 通过RoHS认证

Applications.应用:

- ◆ General Illumination 普通照明
- ◆ Outdoor & Indoor architectural lighting 户外和室内照明
- ◆ Decorative lighting 装饰照明
- ◆ Portable lighting and Reading lighting 手提灯和台灯
- ◆ Traffic signaling 交通信号灯

Table of Contents

目录

Product Nomenclature

产品命名规则 ----- 3

Outline Dimensions

尺寸说明 ----- 4

Parameters

参数 ----- 5

Typical Characteristic Curves (1)

典型特性曲线 (1) ----- 6

Typical Characteristic Curves (2)

典型特性曲线 (2) ----- 7

Soldering Condition./Packing Dimention.

焊接条件 / 包装尺寸 ----- 8

Full Code of GT-Power LED Series 格天大功率LED系列产品型号说明

Full code form 产品型号: GT - P XX XX X X X X XX

1 2 3 4 5 6 7 8 9
GT P 6P RGB 4 3 0 3

Part Number 产品型号说明

1- GT: GeTian 格天光电

2- P : High Power LED 大功率LED

3- XX: Part sort 产品(支架)类型

01: Eight feet four unity holder 八脚四合一支架

02: High temperature PC lens 高温PC透镜

03: With baseplate 带铝基板

04: Without baseplate 不带铝基板

DT: Reflow soldering 回流焊

07: Bimodal lens vertical 花生米透镜垂直

C4: Four feet holder 4脚支架

C3: Four feet holder with baseplate 4脚支架带板

6P: Six feet holder 6脚支架

4- XX: Emitted Color 发光颜色

R1: Red 红色625nm

V1: Violet 紫色360-365nm

G5: Green 绿色515-520nm

R6: Red 红色650nm

V2: Violet 紫色380-390nm

Va: Violet 紫罗兰420-435nm

Y2: Yellow 黄色590nm

V3: Violet 紫色390-400nm

A1: Amber 琥珀色600-610nm

IR: Infrared 红外850nm

V4: Violet 紫色425-435nm

Aa: Amber 琥珀色595-605nm

B3: Blue 蓝色465nm

V5: Violet 紫色370-380nm

B4: Blue 蓝色450-460nm

G6: Green 绿色525nm

V6: Violet 紫色400-410nm

R2: Pink 粉红色640-650nm

B5: Blue 蓝色440-450nm

V7: Violet 紫色410-420nm

Vb: Fuchsia 紫红色380nm

Ba: Lake Blue 湖蓝色465-475nm

W3: Warm White 暖白2900-3200K

W4: Neutral White 中性白4000-4500K

W6: White 正白6000-7000K

W7: Cool White 冷白7000-9000K

5- X : Wafer Size 晶片尺寸

2: 24mil 3: 30mil/32mil/35mil/38mil 4: 42mil/45mil 5: 54mil 6: 60mil

6- X : Wafer Quantity 晶片数量

1: 1EA 2: 2EA 3: 3EA 4: 4EA

7- X : Viewing Angle 发光角度

0: 120° /140° 6: 60° 9: 90° 8: 180°

8- X : Power 功率

0 : 0.5W 1: 1W 2: 2W 3: 3W 4: 4W 5: 5W

9- XX: Brightness Grade 亮度等级

15: 15-25lm

15: 15-30lm

30: 30-40lm

40: 40-60lm

60: 60-80lm

70: 70-90lm

80: 80-120lm

90: 90-100lm

100: 100-110lm

110: 110-120lm

120: 120-130lm

130: 130-140lm

140: 140-150lm

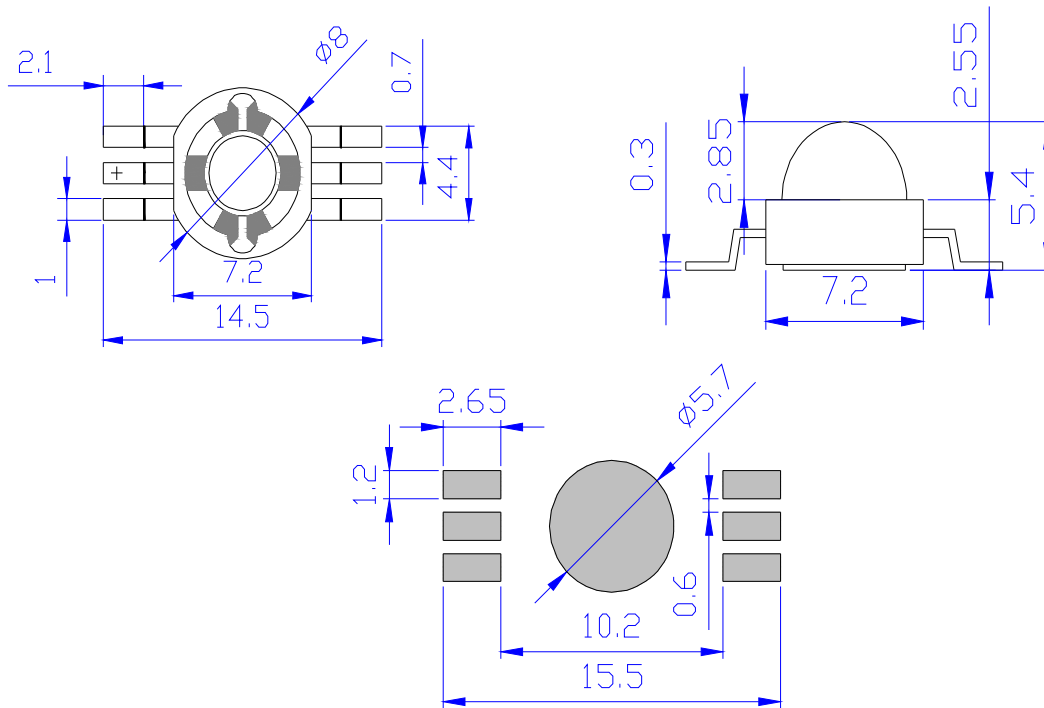
150: 150-180lm

180: 180-200lm

200: 200-220lm

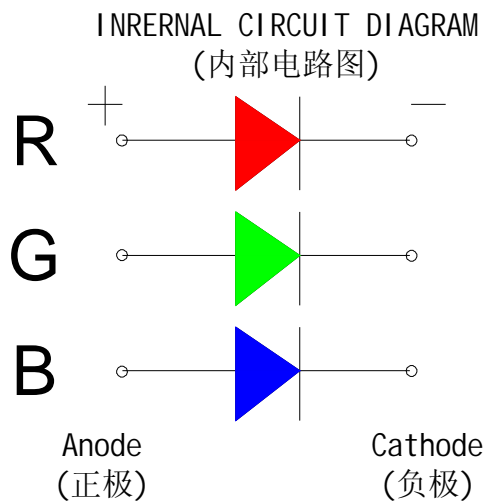
Outline Dimensions 尺寸说明

1、Dome Type 支架尺寸规格



2、Circuit diagram

内部电路芯片排列方式



Notes 注释:

1. All dimensions are in millimeters.(tolerance:±0.2) 所有的尺寸都以毫米为单位(公差: ±0.2);
2. Dimension Scale:1:1 尺寸比例为: 1: 1。

*The appearance and specifications of the product may be changed for improvement without notice.
产品外形和说明书如有更新, 恕不另行通知!

Parameters

参数

Electrical-Optical Characteristics at Ta=25°C

光电特性 Ta=25°C

Parameter 参数	Symbol 符号	Min 最小值	Typ 典型值	Max 最大值	Unit 单位	
Luminous Flux 光通量	ϕ_V	R	40	~	60	lm
		G	70	~	90	
		B	15	~	25	
Correlated Wavelength 相关波长	λ_D	R	620	~	630	nm
		G	520	~	530	
		B	460	~	470	
Forward Voltage 正向电压	V_F	R	2.0	~	2.6	V
		G	3.0	~	3.6	
		B	3.0	~	3.6	
Power Dissipation 耗散功率	P_D	~	3	~	W	
View Angle 发光角度	2 θ 1/2	~	120	~	deg.	
Thermal Resistance 热阻	$R_{\theta J-B}$	~	4	~	°C/W	

Absolute Maximum Ratings

极限参数

Parameter 参数	Symbol 符号	Value 数值	Unit 单位	
Forward Current 正向电流	I_F	R	400	mA
		G	350	
		B	350	
Junction Temperature 结点温度	T_j	115	°C	
Operating Temperature 工作温度	T_{opr}	-40~+60	°C	
Storage Temperature 储存温度	T_{stg}	0~+60	°C	
ESD Sensitivity 静电击穿电压	~	±2,000V HBM	~	
Temperature Coefficient of voltage 电压温度系数	~	-5	mV/°C	
DC Pulse Current(@ 1 KHz,10% duty cycle) 直流脉冲电流(@ 1 KHz,10% 占空比)	I_{FP}	1000	mA	
Reverse Voltage 反向电压	V_R	Not designed for reverse operation 禁止反向驱动		

*Notes 注释:

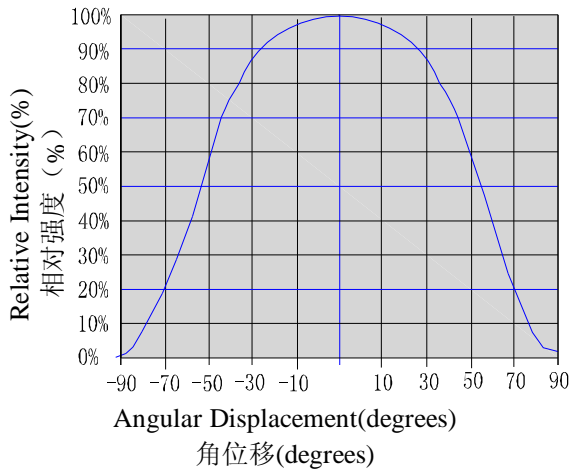
1. Tolerance of Luminous Flux is ±3%.光通量的公差为±3%。
2. Tolerance of Forward Voltage is ±0.1V.正向电压的公差为±0.1V。

Typical Characteristic Curves(1)

典型特性曲线 (1)

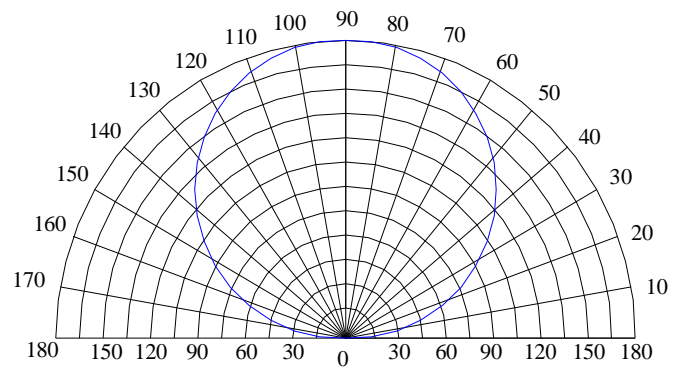
1. Typical Light Distribution Curve

典型的光强分布曲线



2. Typical Light-Emitting Angle Radiation Pattern

典型发光角度辐射图

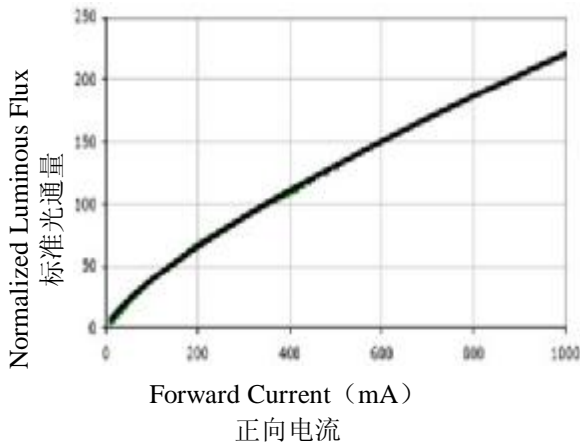


Typical Polar Radiation Pattern for Lambertian

朗柏型灯珠典型发光角度辐射图

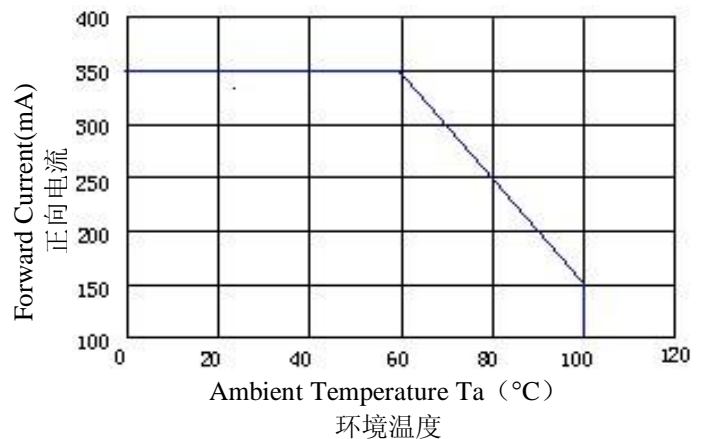
3. Forward Current vs. Relative Luminous Flux Curve

正向电流与相对光通量曲线图



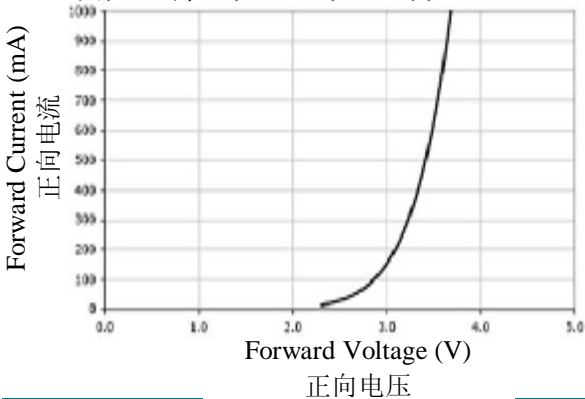
4. Forward Current Derating Curve, Derating based on $T_{max}=125^{\circ}C$

正向电流降额曲线, 以 $T_{max}=125^{\circ}C$ 为基准

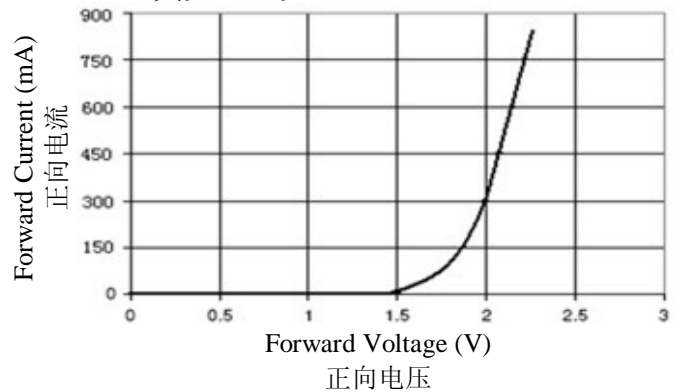


5. Electrical Characteristics Curve 电性特征曲线图($T_j = 25^{\circ}C$)

5-1. White, Royal Blue, Blue, Green 白光、深蓝光、蓝光、绿光



5-2. Amber, Red 黄光、红光

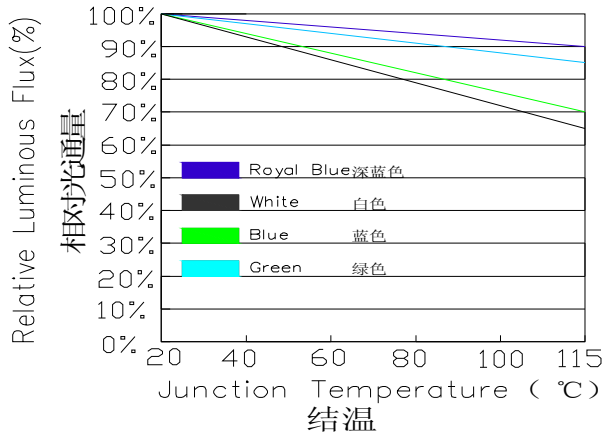


Typical Characteristic Curves(2)

典型特性曲线 (2)

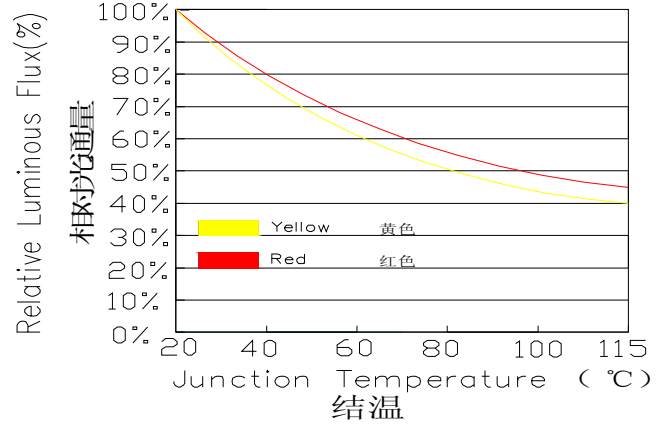
6-1. Relative Flux vs. Junction Temperature (If = 350 mA)

White, Royal Blue, Blue, Green 相对光通量与结温曲线图(If = 350 mA)一白光、深蓝光、蓝光、绿光



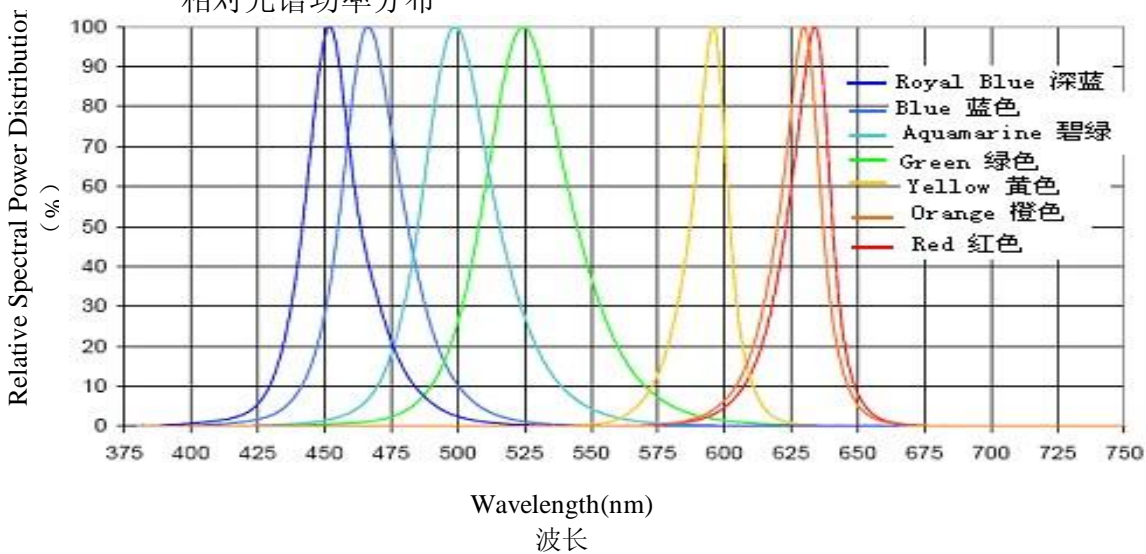
6-2. Relative Flux vs. Junction Temperature (If = 400mA)

Amber, Red 输出光通量与结温曲线图(If = 400mA)黄光、红光



7. Relative Spectral Power Distribution

相对光谱功率分布



Soldering Condition 焊接条件

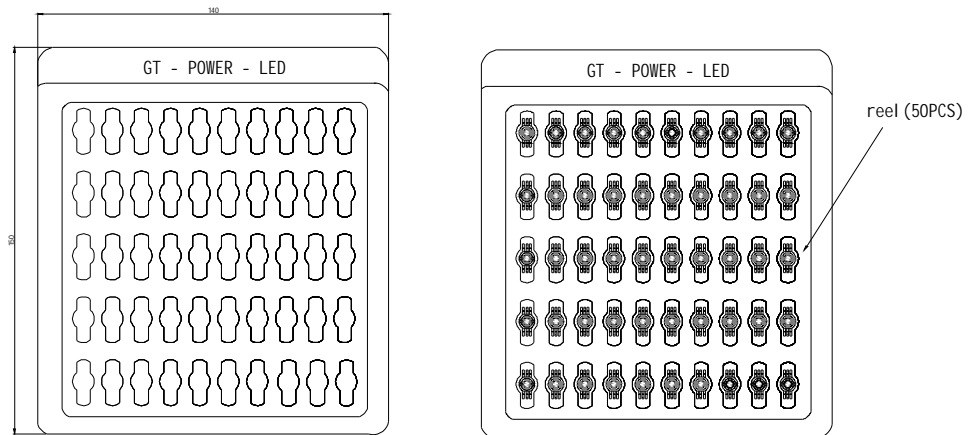
Reflow Soldering 回流焊			Manual Welding 人工焊接	
	High temperature PC lens 高温PC透镜产品	Molding products 封模产品	Temperature 温度	Soldering time 焊接时间
Preheat 预热	100-140°C	180-200°C	Highest 350°C 最高350°C	3ses once 3秒一次
Heatup time 加热时间	120sec Max	120sec Max		
Peak temperature 最高温度	180°C Max	260°C Max		
Condition of Soldering time 焊接时间	50sec Max	10sec Max		

*Notes 注释:

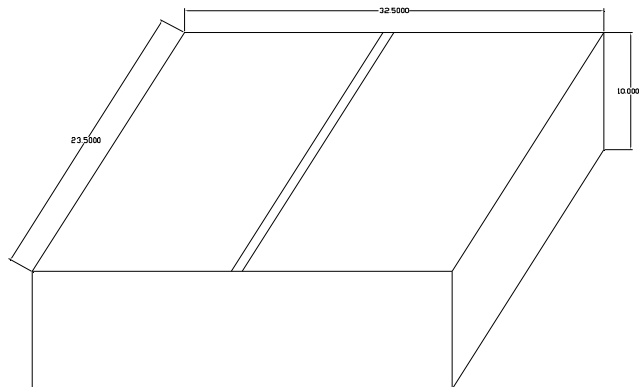
Conventional PC lens products don't use reflow soldering.

普通PC透镜产品请勿使用回流焊接。

Packing Dimention 包装尺寸



Inner pack 内包装



Outer pack 外包装