



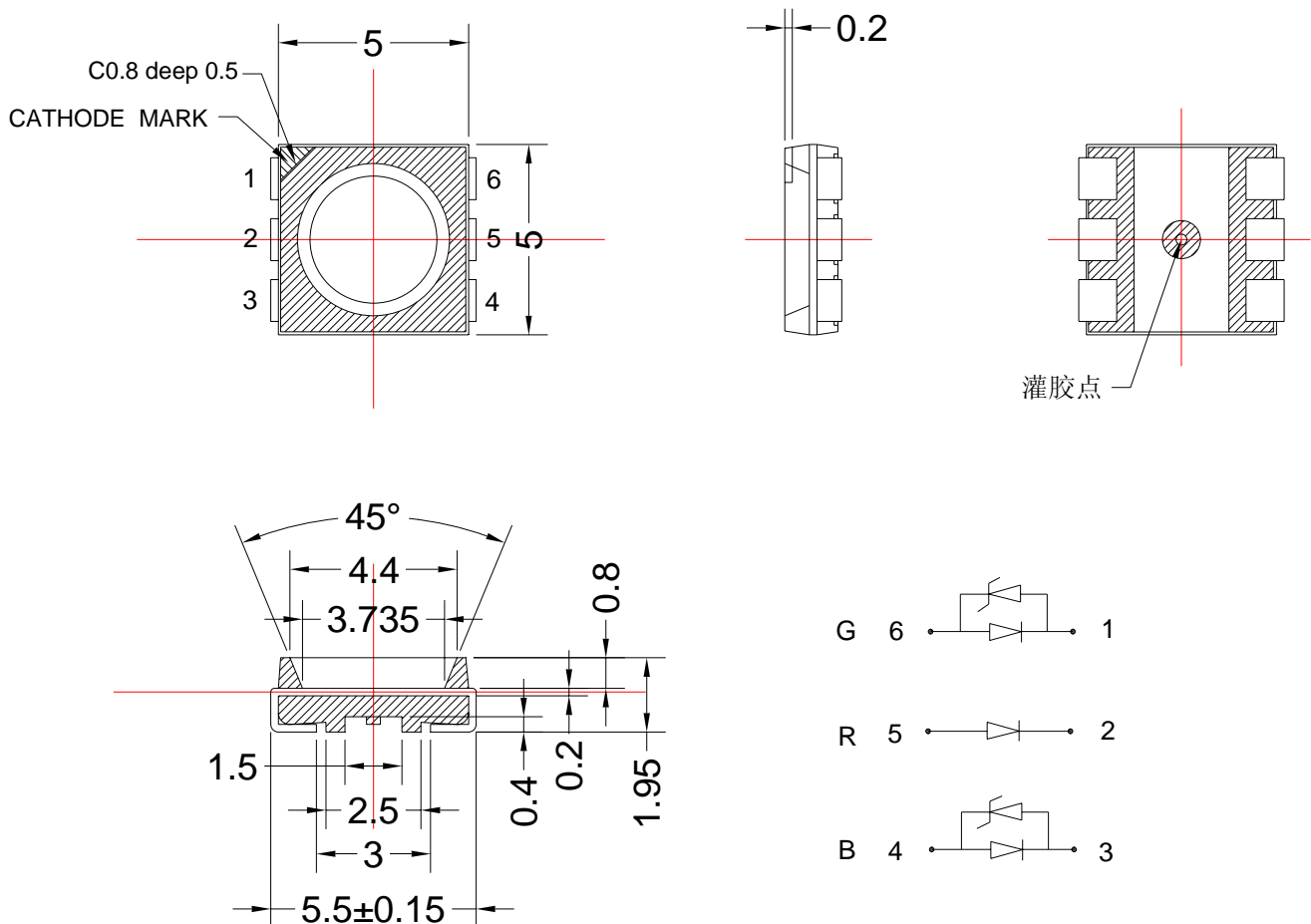
### 1、Features/特 征:

- Emitting Color/发光颜色: Red/Green/Blue/红色/绿色/蓝色
- Lens Type/封装特性: Water clear/透明
- Device Outline/外形特征: 5.5×5.0×1.95 (unit:mm)
- RoHS compliant/符合 RoHS 标准

### 2、Applications/应 用:

- Backlight for Mobile, Machine Vision, LCD Display/手机、电话、显示屏背光源
- Backlight in Dashboard and switch of Automive/汽车仪表盘、记程器背光源

### 3、Outline Dimensions/产品外形尺寸 (units:mm) :





**4、Absolute maximum ratings/极限参数 (Ta = 25°C):**

Parameter 参数	Color 颜色	Symbol 符号	Test Condition 测试条件	Values 数值		Unit 单位
				Min.	Max.	
Power Dissipation 损耗功率	Red	Pd	—	—	65	mW
	Green			—	85	
	Blue			—	100	
Reverse Voltage 反向电压	Red	VR	IR = 30 μ A	5	—	V
	Green					
	Blue					
Pulse Current 正向峰值电流	Red	Ifp	Duty=0.1, 1kHz	—	100	mA
	Green					
	Blue					
Forward Current 正向工作电流	Red	Ifm	—	—	25	mA
	Green					
	Blue					
Operating Temperature 工作温度范围	Red	Topr	—	-40	+85	°C
	Green					
	Blue					
Storage Temperature 储存温度范围	Red	Tstr	—	-40	+85	°C
	Green					
	Blue					



型号:**ST-5050RGBC**

**5、Electrical and optical characteristics/光电参数 (Ta = 25℃):**

Parameter 参数	Color 颜色	Symbol 符号	Test Condition 测试条件	Values 数值			Unit 单位
				Min	Typ	Max	
Forward Voltage 正向电压	Red	V <sub>F</sub>	I <sub>F</sub> = 20mA	—	2.0	2.6	V
	Green			—	3.2	3.6	
	Blue			—	3.2	4.0	
Reverse Current 反向电流	Red	I <sub>R</sub>	V <sub>R</sub> =5V	—	—	10	μ A
	Green			—	—	30	
	Blue			—	—	30	
Dominate Wavelength 主波长	Red	λ <sub>d</sub>	I <sub>F</sub> = 20mA	—	624	—	nm
	Green			—	525	—	
	Blue			—	470	—	
Peak Wavelength 峰值波长	Red	λ <sub>p</sub>	I <sub>F</sub> =20mA	—	—	—	nm
	Green			—	—	—	
	Blue			—	—	—	
Spectral Line half-width 半波长宽度	Red	Δ λ	I <sub>F</sub> = 20mA	—	—	—	nm
	Green			—	—	—	
	Blue			—	30	—	
Luminous Intensity 发光强度	Red	I <sub>v</sub>	I <sub>F</sub> = 20mA	145	220	—	mcd
	Green			390	700	—	
	Blue			102	170	—	
Viewing Angle 发光指向角	Red	2 θ 1/2	I <sub>F</sub> = 20mA	—	120	—	Deg.
	Green			—	120	—	
	Blue			—	120	—	



**6、Product Rank/产品分档**

<b>Luminous Intensity / 发光强度 (mcd)</b>			
Rank	Blue	Green	Red
B	102~145	280~390	145~200
C	145~200		
D	102~145	390~550	
E	145~200		
F	102~145	280~390	200~280
G	145~200		
H	102~145	390~550	
J	145~200		

<b>Wavelength / 波长 (nm)</b>			
Rank	Blue	Green	Red
B	465~470	520~525	620~630
C	470~475		
D	465~470	525~530	
E	470~475		

Notes/备注: Rank error/分档误差: Iv: ±15%, λ d: ±1nm



型号: **ST-5050RGBC**

7、Typical electrical/optical characteristic curves/光电特性曲线:

Fig.1 正向电流 Vs. 正向电压

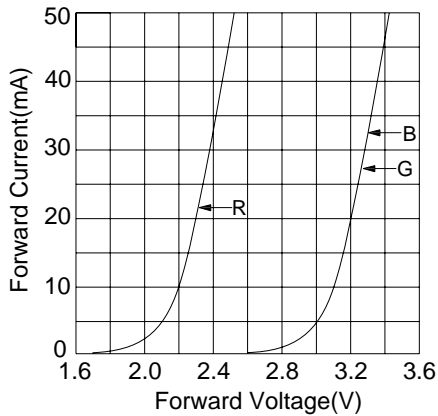


Fig.2 相对亮度 Vs. 正向电流

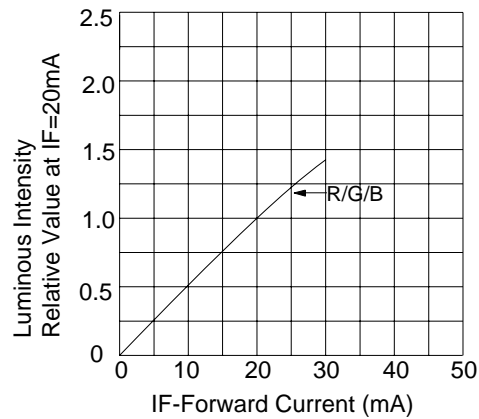


Fig.3 正向电流 Vs. 环境温度

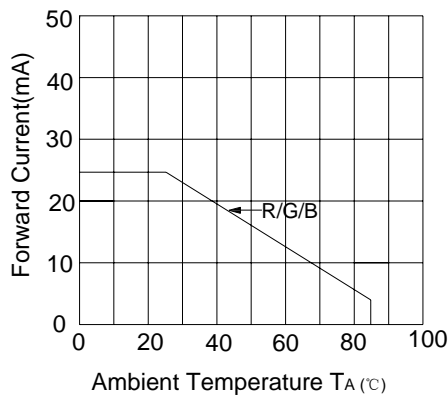


Fig.4 相对亮度 Vs. 环境温度

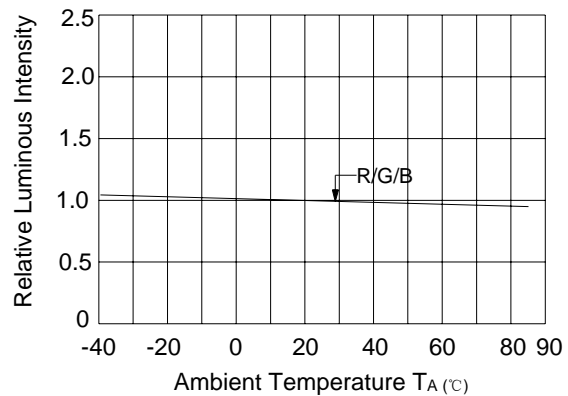
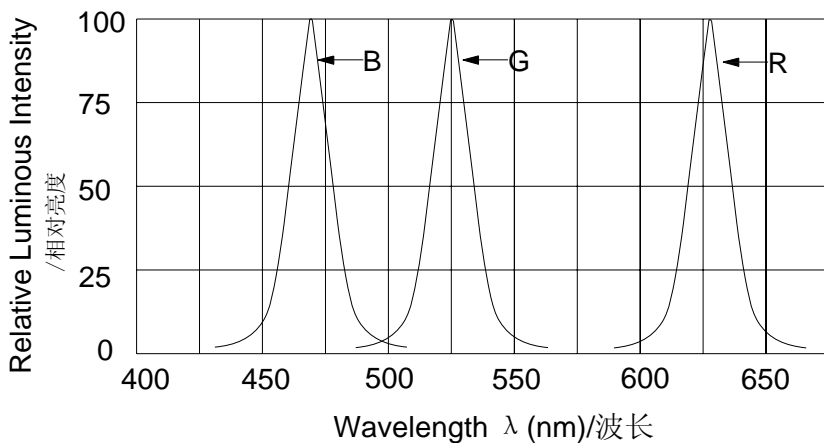


Fig.5 相对亮度 Vs. 波长



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