
Description

Features.

- ◆ Super high Flux output and high Luminance
- ◆ Designed for high current operation
- ◆ Low thermal resistance:12°C/W
- ◆ SMT solder bility
- ◆ RoHS compliant

Applications.

- ◆ General Illumination
- ◆ Outdoor & Indoor architectural lighting
- ◆ Decorative lighting
- ◆ Portable lighting and Reading lighting
- ◆ Traffic signaling

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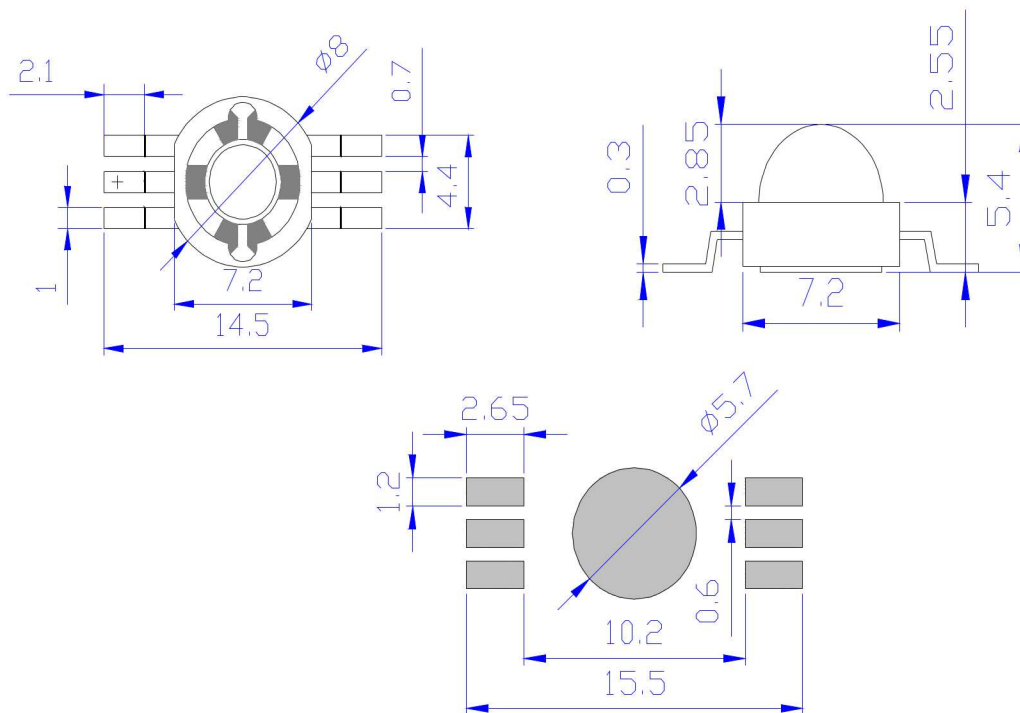
Typical Characteristic Curves (1)

Typical Characteristic Curves (2)

Soldering Condition

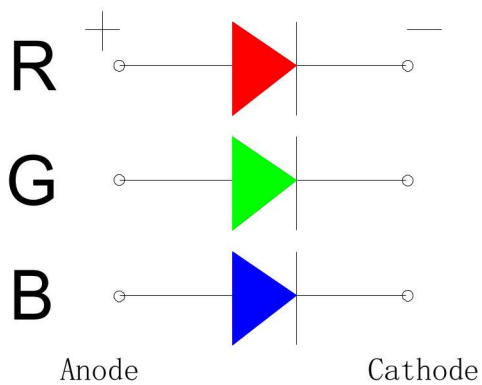
Outline Dimensions

1、 Dome Type



2、 Circuit diagram

INTERNAL CIRCUIT DIAGRAM



Notes

1. All dimensions are in millimeters.(tolerance:±0.2)

2. Dimension Scale:1:1

*The appearance and specifications of the product may be changed for improvement without notice.

Parameters

Electrical-Optical Characteristics at IF=750mA, Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	
Luminous Flux	ϕ_v	R	60	~	80	lm
		G	120	~	130	
		B	30	~	50	
Correlated Wavelength	λ_D	R	620	~	630	nm
		G	520	~	530	
		B	460	~	470	
Forward Voltage	V_F	R	2.2	~	2.8	V
		G	3.5	~	4.5	
		B	3.5	~	4.5	
Power Dissipation	P_D	~	9	~	W	
View Angle	2 θ 1/2	~	120	~	deg.	
Thermal Resistance	$R\theta_{J-B}$	~	4	~	°C/W	

Absolute Maximum Ratings

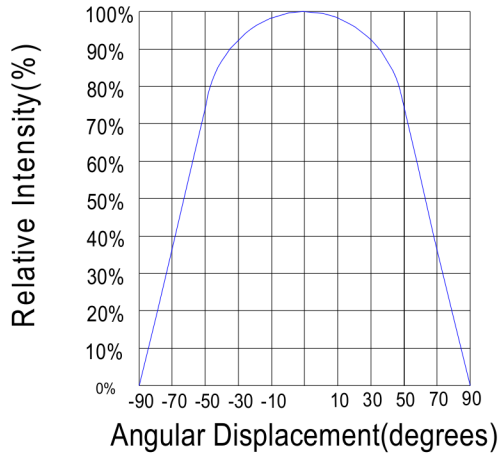
Parameter	Symbol	Value	Unit	
Forward Current	I_F	R	800	mA
		G	750	
		B	750	
Junction Temperature	T_j	115	°C	
Operating Temperature	T_{opr}	-40~+60	°C	
Storage Temperature	T_{stg}	0~+60	°C	
ESD Sensitivity	~	±2,000V HBM	~	
Temperature Coefficient of voltage	~	-5	mV/°C	
DC Pulse Current(@ 1 KHz, 10% duty cycle)	I_{FP}	1000	mA	
Reverse Voltage	V_R	Not designed for reverse operation		

*Notes

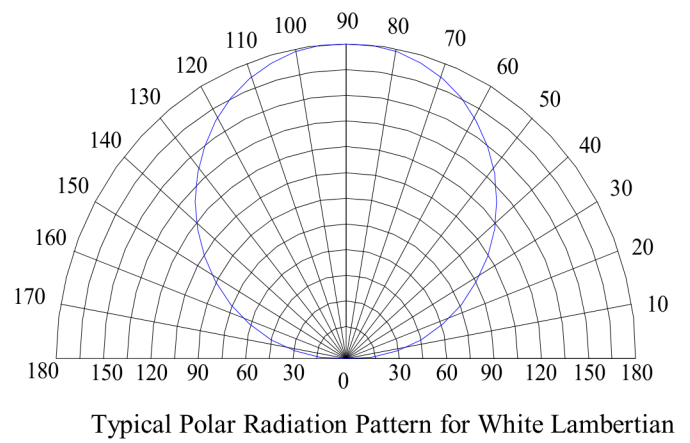
1. Tolerance of Luminous Flux is ±3%
2. Tolerance of Forward Voltage is ±0.1V

Typical Characteristic Curves(1)

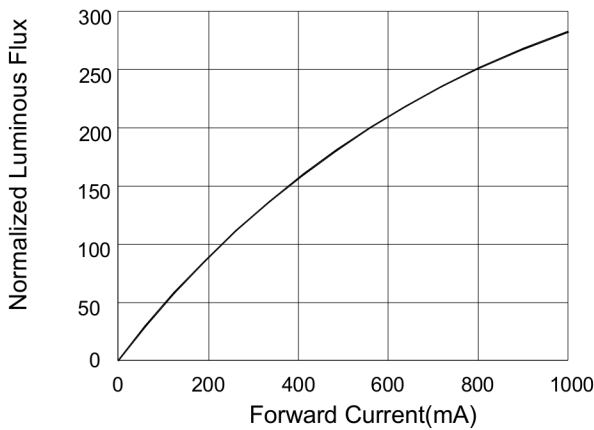
1. Typical Light Distribution Curve



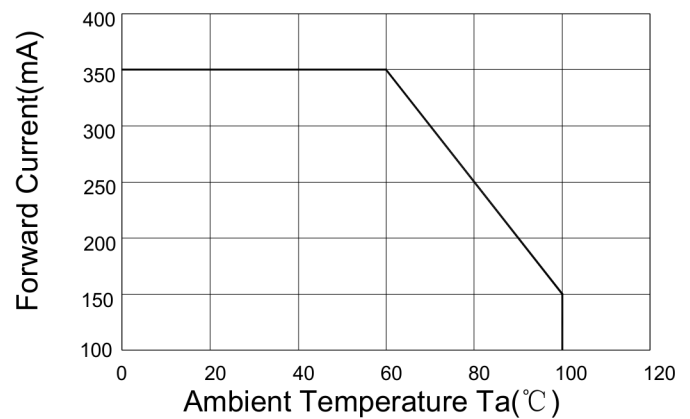
2. Typical Light-Emitting Angle Radiation Pattern



3. Forward Current vs. Relative Luminous Flux Curve

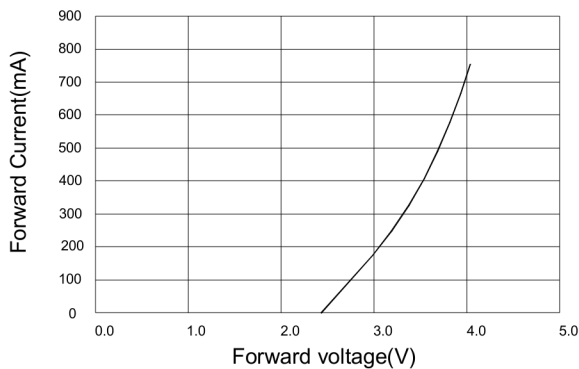


4. Forward Current Derating Curve, Derating based on $T_{max}=125^{\circ}C$

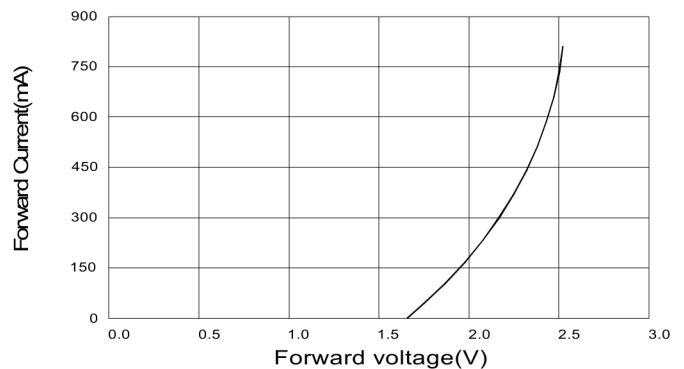


5. Electrical Characteristics Curve

5-1. White, Royal Blue, Blue, Green

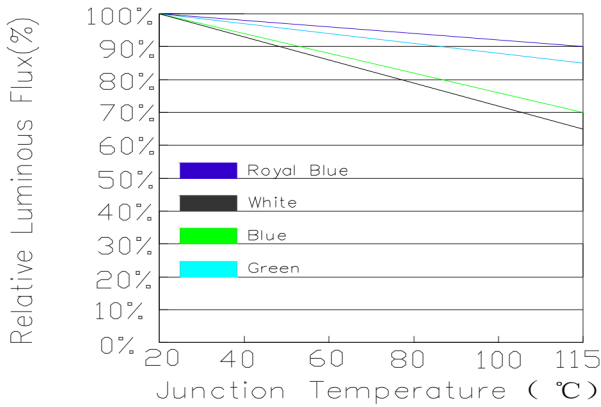


5-2. Amber, Red

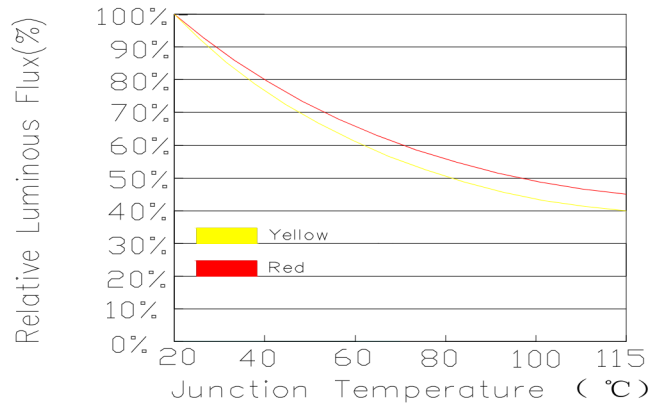


Typical Characteristic Curves(2)

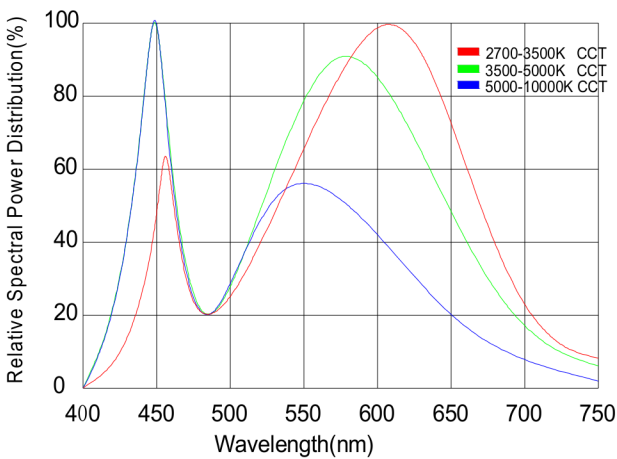
6-1. Relative Flux vs. Junction Temperature (If = 350 mA)
White, Royal Blue, Blue, Green



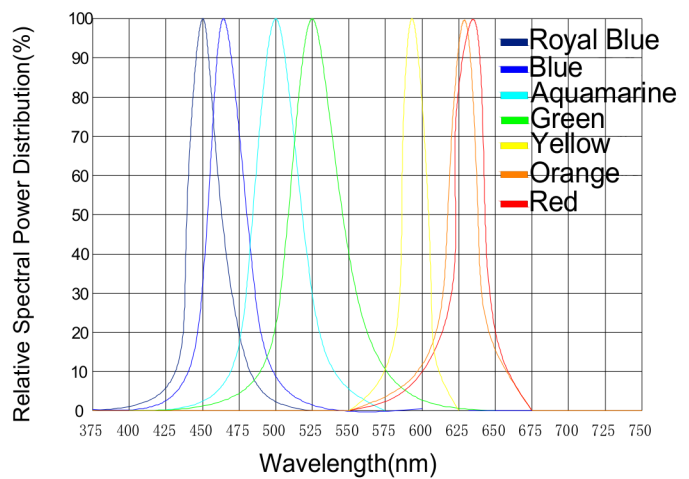
6-2. Relative Flux vs. Junction Temperature (If = 400 mA)
Amber, Red



7. Typical white spectral distribution

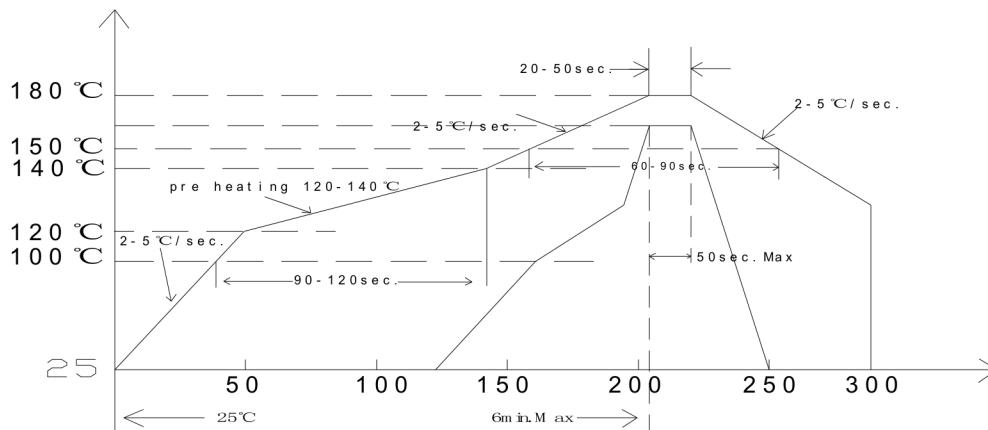


8. Relative Spectral Power Distribution



9. Reflow temperature time curve

Reflow Soldering Profile — Lead Free Solder



Soldering Condition

Reflow Soldering			Manual Welding	
	High temperature PC lens	Molding products	Temperature	Soldering time
Preheat	100-140°C	180-200°C	Highest 350°C	3ses once
Heatup time	120sec Max	120sec Max		
Peak temperature	180°C Max	260°C Max		
Condition of Soldering time	50sec Max	10sec Max		

*Notes

Conventional PC lens products don't use reflow soldering.