

---

## Description

### Features.

- ◆ Super high Flux output and high Luminance
- ◆ Adapt to large current circuit
- ◆ Low thermal resistance:12°C/W
- ◆ Wide viewing angle , Integrated package
- ◆ RoHS compliant

### Applications.

- ◆ General Lighting
- ◆ Architectural lighting
- ◆ Decorative lighting
- ◆ Flood lights, cast light lamps
- ◆ Street lamp, tunnel lamp

## Table of Contents

Outline Dimensions

Parameters

Typical Characteristic Curves (1)

Typical Characteristic Curves (2)

Reliability Test

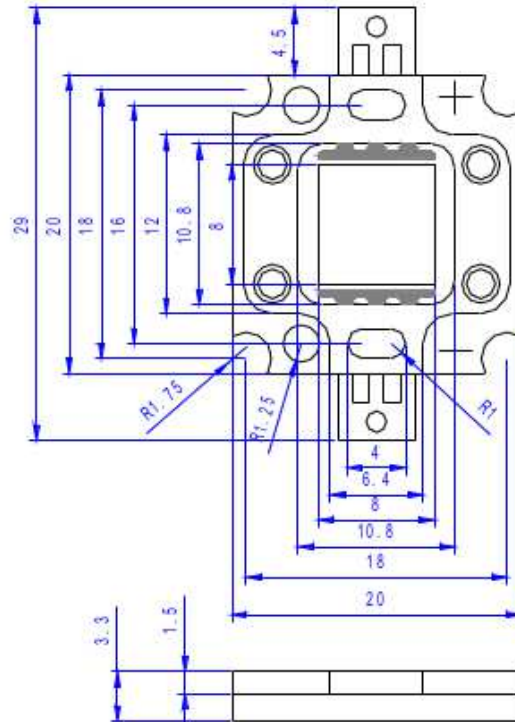
Soldering Condition./Packing Dimention.

---

---

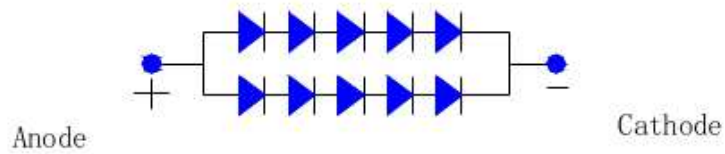
## Outline Dimensions

### 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 Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit
Luminous Flux	$\phi_v$	350	~	500	lm
Wavelength	$\lambda_D$	620	~	630	nm
Forward Voltage	$V_F$	10	~	13	V
Power Dissipation	$P_D$	8.00	~	10.4	W
View Angle	2 $\theta_{1/2}$	~	120	~	deg.
Thermal Resistance	$R\theta_{J-B}$	~	12	~	°C/W

### Absolute Maximum Ratings

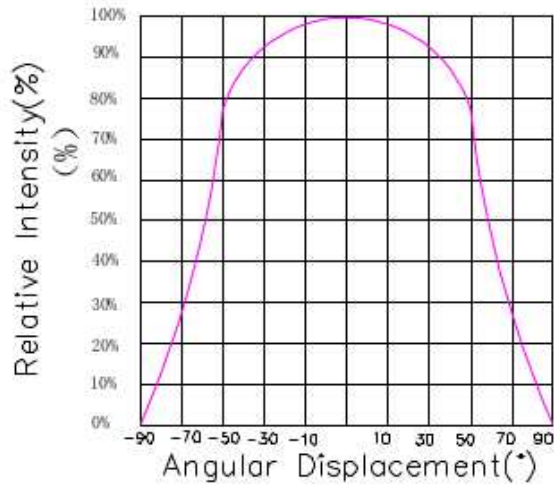
Parameter	Symbol	Value	Unit
Forward Current	$I_F$	800	mA
Junction Temperature	$T_j$	115	°C
Operating Temperature	$T_{opr}$	-40~+60	°C
Storage Temperature	$T_{stg}$	0~+60	°C
ESD Sensitivity	~	±2,000V HBM	~
Temperature Coefficient of voltage	~	-5	mV/°C
DC Pulse Current(@ 1 KHz,10% duty cycle)	$I_{FP}$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

\*Notes

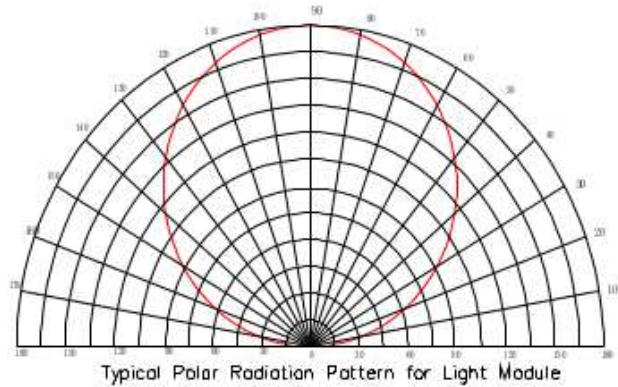
1. Tolerance of Luminous Flux is ±3%.
2. Tolerance of Forward Voltage is ±0.1V.

## Typical Characteristic Curves(1)

1. Typical Light Distribution Curve

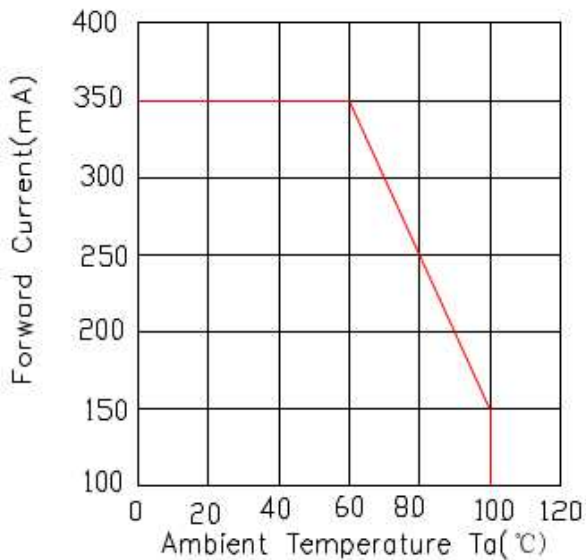


2. Typical Light-Emitting Angle Radiation Pattern

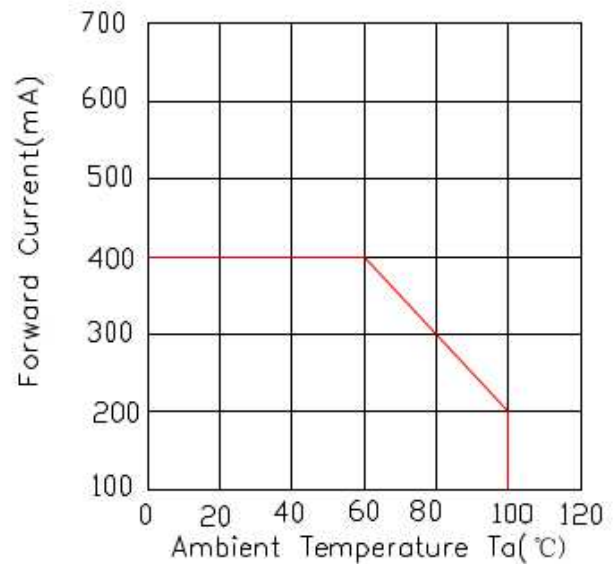


3. Forward Current Derating Curve, Derating based on  $T_{imax}=115^{\circ}C$

3-1: White, Royal Blue, Blue, Green

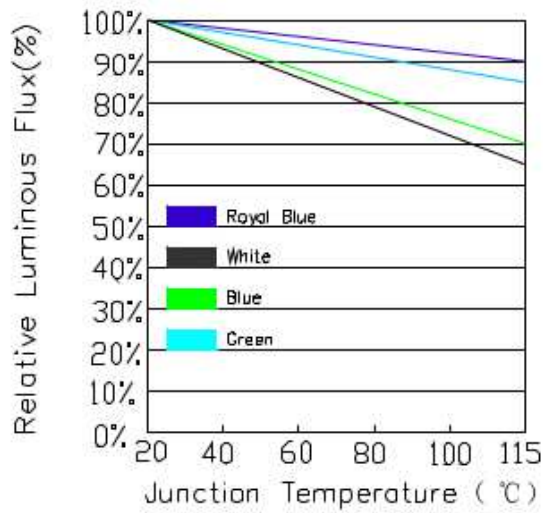


3-2: Amber, Red

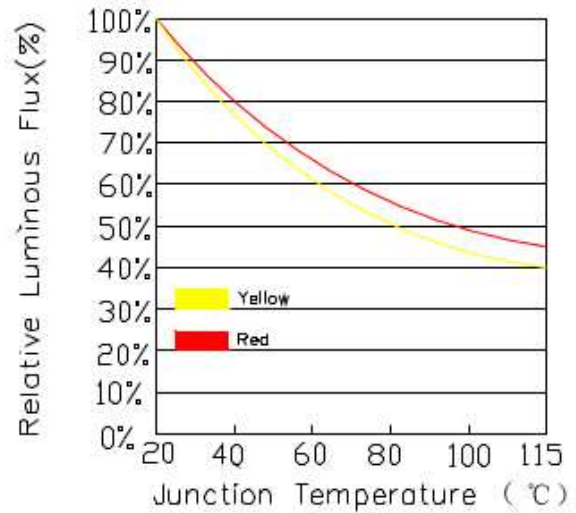


## Typical Characteristic Curves(2)

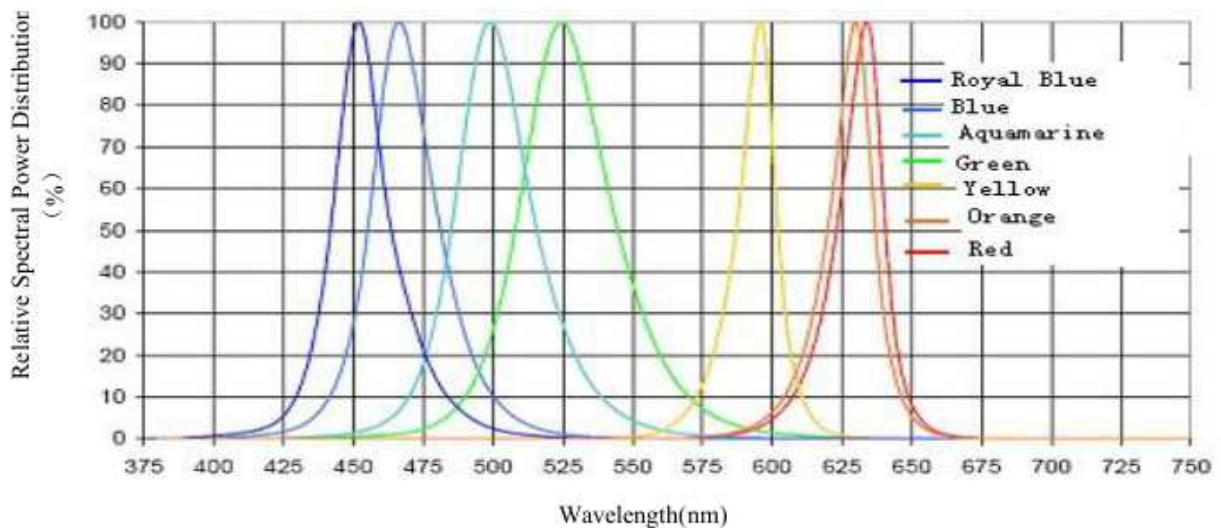
4-1. Relative Flux vs. Junction Temperature White, Royal Blue, Blue, Green



4-2. Relative Flux vs. Junction Temperature Amber, Red



## 5. Relative Spectral Power Distribution



## Reliability Test Items And Conditions

Test Items	Test Condition	Test Hours Cyles	Sample Size	Ac/Re
DC Aging	Ta=25℃ IF=700mA	1000H	22	0/1
Hot and cold shock	-40℃/30min +100℃/30min	100Cycles 100	22	0/1
High Temperature Storage	Ta=100℃	1000H	22	0/1
High Temperature High Humidity	85℃/85%RH	1000H	22	0/1
Low Temperature Storage	Ta=-40℃	1000H	22	0/1
ESD(HBM)	2000V HBM	1Time	10	0/1

## Criteria For Judging the Damage

Items	Symbol	Test Condition	Criteria For Judging Damage
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =700mA	Initial Data±10%
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =25V	I <sub>R</sub> ≤20μA
Luminous Flux	φ <sub>v</sub>	I <sub>F</sub> =700mA	Average φ <sub>v</sub> degradation≤30% Single LED φ <sub>v</sub> degradation≤50%

---

## Soldering Condition

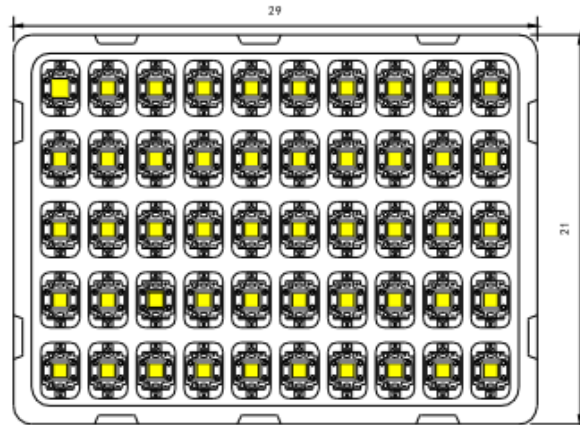
Only By Manual Welding

Temperature	Soldering time
Highest 350°C	3ses once

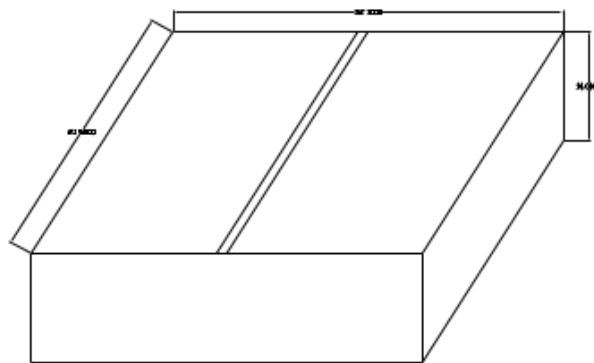
\*Notes

Module holder products don't use reflow soldering.

## Packing Dimention



Inner pack



Outer pack

---