Description

Features.

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

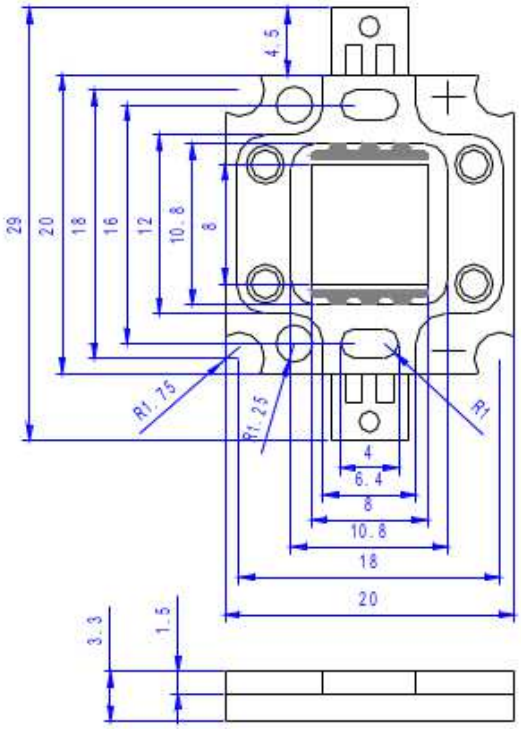
Applications.

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

Table of Contents

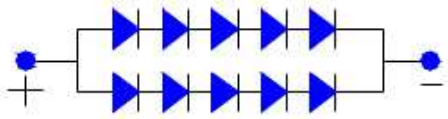
Outline Dimensions

1、Dome Type



2、Circuit diagram

INRERNAL CIRCUIT DIAGRAM



Anode Cathode

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℃

Parameter	Symbol	Min	Typ	Max	Unit
Wavelength	λD	400	~	410	nm
Forward Voltage	V_F	15	~	18	V
Power Dissipation	P_D	10.50	~	12.6	W
View Angle	2θ1/2	~	120	~	deg.
Thermal Resistance	$R\theta_{J-B}$	~	12	~	℃/W

Absolute Maximum Ratings

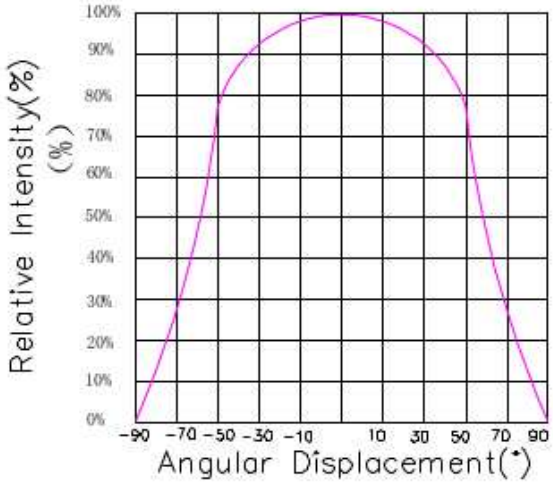
Parameter	Symbol	Value	Unit
Forward Current	I_F	700	mA
Junction Temperature	T_j	115	℃
Operating Temperature	T_{opr}	-40~+60	℃
Storage Temperature	T_{stg}	0~+60	℃
ESD Sensitivity	~	±2,000V HBM	~
Temperature Coefficient of voltage	~	-5	mV/℃
DC Pulse Current(@ 1 KHz,10% duty cycle)	I_{FP}	1000	mA
Reverse Voltage	V_R	Not designed for reverse operation	

*Notes

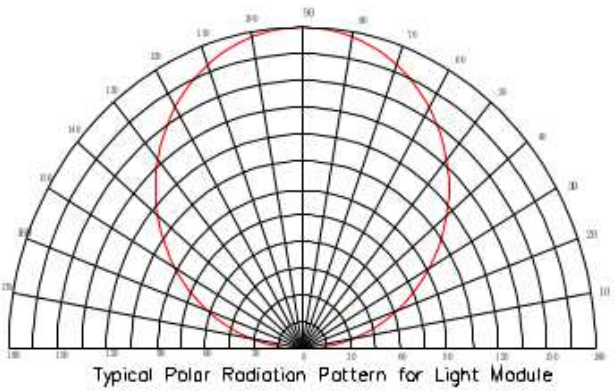
1. Tolerance of Luminous Flux is ±3%.
2. Tolerance of Forward Voltage is ±0.1V.

Typical Characteristic Curves(1)

1. Typical Light Distribution Curve

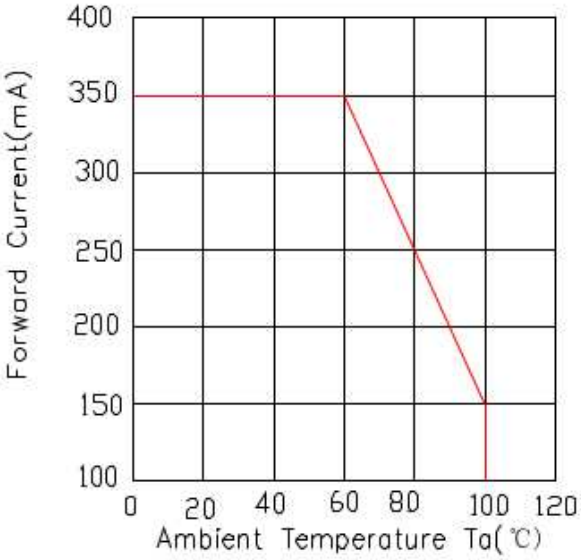


2. Typical Light-Emitting Angle Radiation Pattern

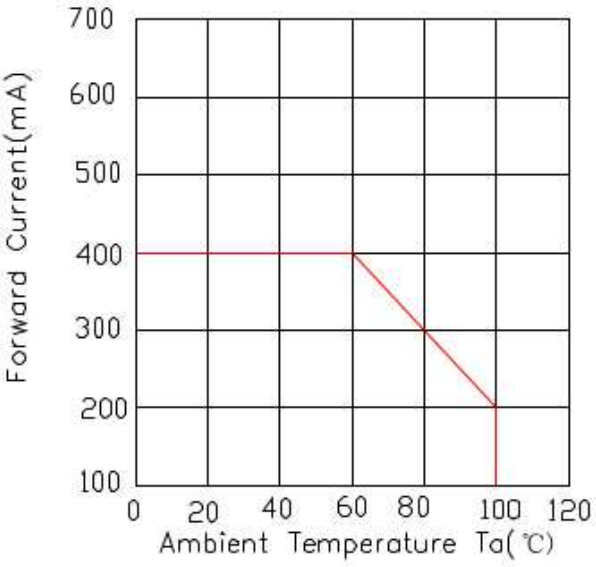


3. Forward Current Derating Curve,Derating based on Timax=115℃

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

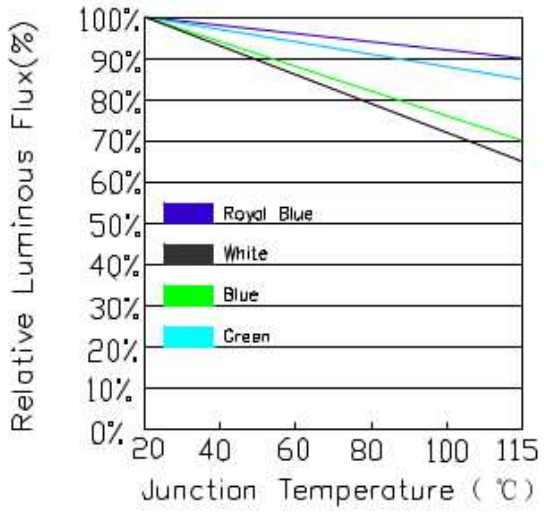


3-2: Amber, Red

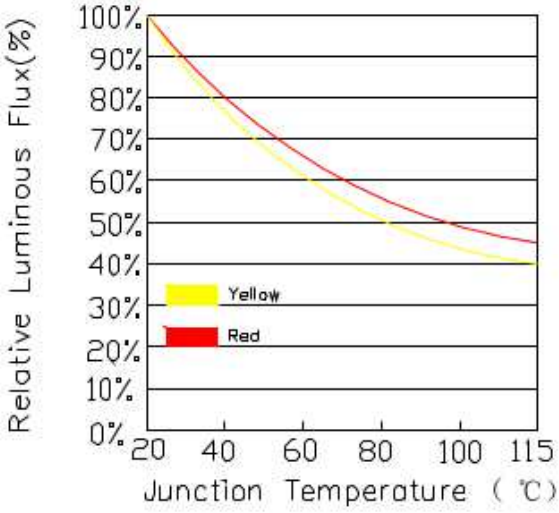


Typical Characteristic Curves(2)

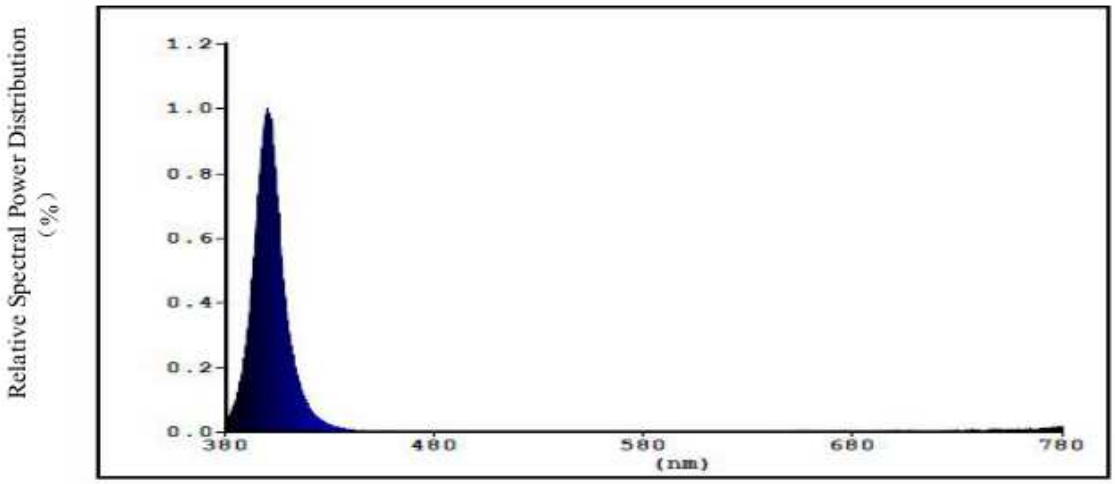
4-1. Relative Flux vs. Junction Temperature White, Royal Blue, Blue, Green



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



5. Relative Spectral Power Distribution



Wavelength(nm)

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_F	I_F=700mA	Initial Data±10%
Reverse Current	I_R	V_R=25V	$I_R \leqslant 20\mu A$
Luminous Flux	ϕ_V	I_F=700mA	Average ϕ_V degradation≤30% Single LED ϕ_V degradation≤50%

Soldering Condition

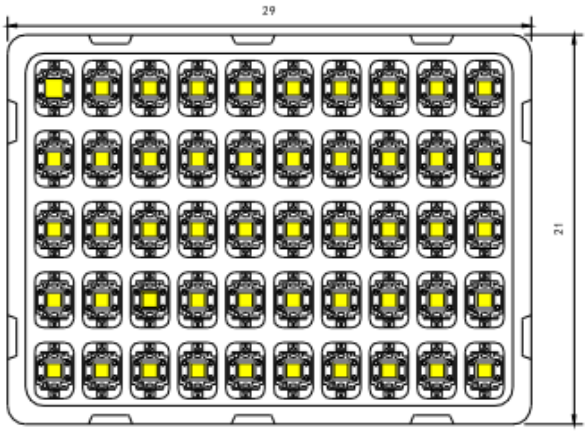
Only By Manual Welding

Temperature	Soldering time
Highest 350℃	3ses once

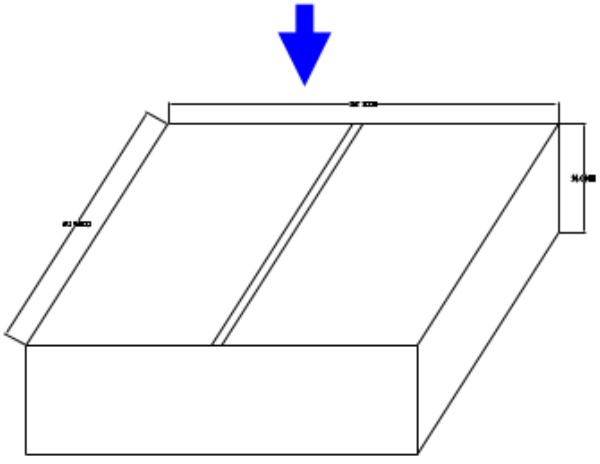
*Notes

Module holder products don't use reflow soldering.

Packing Dimention



Inner pack



Outer pack