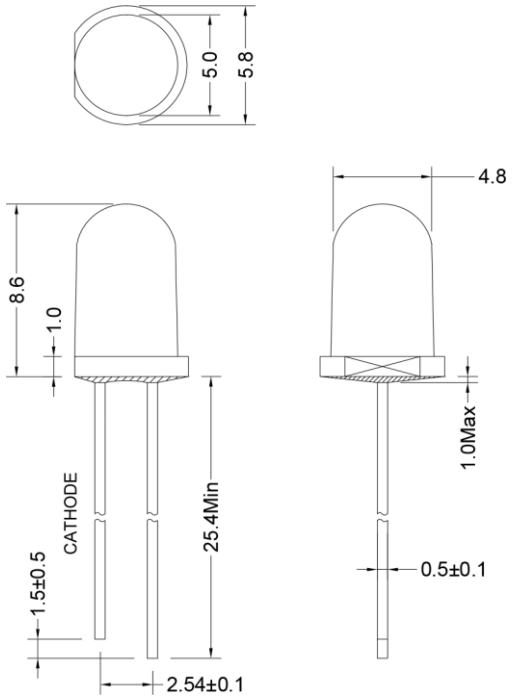
DIP LED Data sheet

Part No./: SOL-5030BGC

➢ Features:

- **Single color**
- **High bright output**
- **Low power consumption**
- **High reliability and long life**

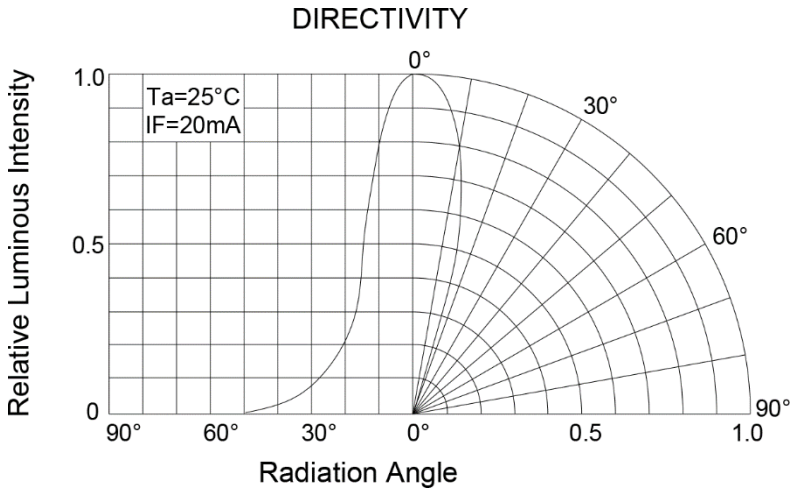


1. All dimensions are millimeters： mm.
2. Tolerance is +/-0.20mm unless otherwise noted：±0.20mm.

➢ Descriptions:

- **Dice material：InGaN**
- **Emitting Color：Super Bright Blue Green**
- **Device Outline：φ5mm Round Type/ 5mm**
- **Lens Type ： Water Clear**

➢ Directivity:



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➢ Absolute Maximum Ratings (Ta = 25℃) :

Parameter	Symbol	Test Condition	Values		Unit
			Min.	Max.	
Reverse Voltage	V_R	I_R = 5 μ A	5	--	V
Forward Current	I_F	----	----	25	mA
Power Dissipation	P_d	----	----	90	mW
Pulse Current	I_{peak}	Duty=0.1mS，1kHz	----	100	mA
Operating Temperature	T_{opr}	----	-40	+85	℃
Storage Temperature	T_{str}	----	-40	+100	℃

➢ Electrical and optical characteristics (Ta = 25℃) :

Parameter	Symbol	Test Condition	Values			Unit
			Min.	Typ.	Max.	
Forward Voltage	V_F	I_F=20mA	----	3.2	3.6	V
Reverse Current	I_R	V_R=5V	----	----	5	μ A
Dominate Wavelength	λ_d	I_F=20mA	503	----	512	nm
Peak Wavelength	λ_p	I_F=20mA	----	500	----	nm
Spectral Line half-width	$\Delta\lambda$	I_F=20mA	----	35	----	nm
Luminous Intensity	I_V	I_F=20mA	——	9000	----	mcd
Viewing Angle	$2\theta_{1/2}$	I_F=20mA	----	26	----	deg.

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➢ Typical electrical/optical characteristic curves:

Fig.1 Forward Current Vs. Forward Voltage

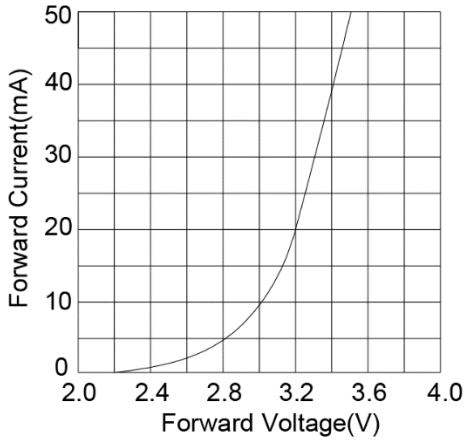


Fig.2 Relative Brightness Vs. Forward Voltage

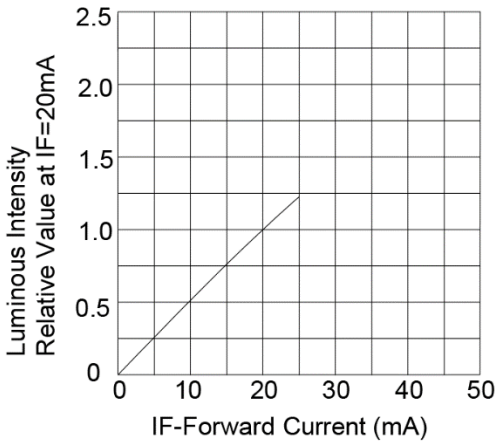


Fig.3 Forward Current Vs. Ambient temperature

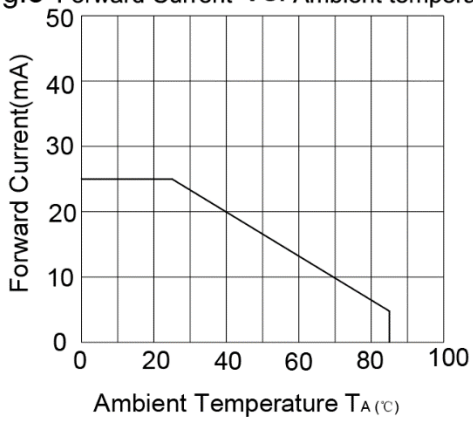


Fig.4 Relative Brightness Vs. Ambient temperature

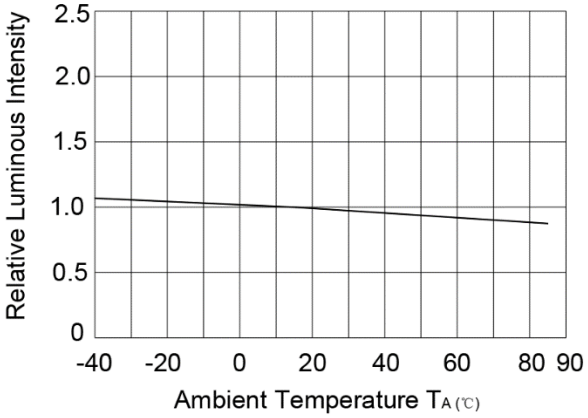
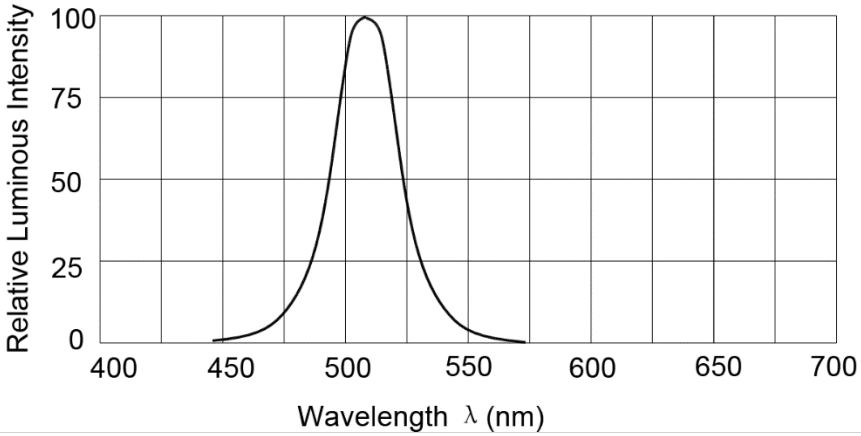


Fig.5 Relative brightness Vs. Wavelength



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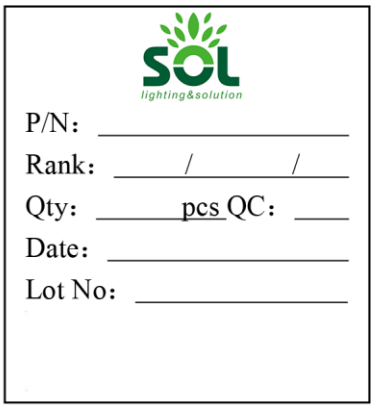
➢ Label Form Specification:



P/N: Customer's Production Number

QTY: Packing Quantity

Ranks: Iv / Vf / WD

Iv：Iv Rank；Vf：Vf Rank；WD：Color Group

QC: Quality Control chapter

Date: mm / dd / yy

mm：Month；dd：Date；yy：Year；

Lot No: Production batch Number

➢ Lead Forming：

1. Any lead forming or bending must be done before soldering.

2. When forming leads, there must be a minimum of 2mm clearance between the base of the LED lens and the lead bend.

3. Avoid bending the leads at the same point more than once.

4. During assembly onto PCB, the lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement.

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➢ Soldering Condition:

Careful attention should be paid during soldering. When soldering, leave more then 2mm from solder joint to case, and soldering beyond the base of the tie bar is recommended.

Avoiding applying any stress to the lead frame while the LEDs are at high temperature particularly when soldering.

➢ Recommended soldering conditions：

Hand Soldering		DIP Soldering	
Temp.at tip of iron	300℃Max.(30WMax.)	Preheat temp.	100℃ Max. (60 sec Max.)
Soldering time	3 sec Max.	Bath temp.	260℃ Max
Distance	2mm Min.(From solder joint to case)	Bath time.	3 sec Max.
		Distance	2mm Min

➢ Cleaning：

1. Do not clean LEDs with water, Alcohol are recommended solvents for cleaning. When using other solvents, it should be confirmed beforehand whether the solvents will dissolve the resin or not.

2. LEDs may be damaged by ultrasonic-washed. Before cleaning, a pre-test should be done to confirm whether any damage to the LEDs will occur.

➢ Storage：

1. Environmental temperature: -40℃---100℃, Recommended: -20℃---50℃

2. Environmental humidity: 30%---70%, Recommended: 40%---60%

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➢ Static Electricity：

1. Static Electricity or power surge will damage the LED. It is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.

2. All production machinery and test instruments must be electrically grounded.

3. Maintain a humidity level of 50% or higher in production areas.

4. Use anti-static packaging for transport and storage.

➢ Notes：

1. This datasheet will be update regularly, if there comes out any changes, pls confirmed by the latest datasheet.

2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. SUNPU assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

Thank You!