

SPECIFICATIONS FOR FLUX LED

MODEL: [GNL-R20-300HPUB/15](#)



NINGBO G-NOR ELECTRONICS CO.,LTD.

G-NOR HIGH POWER LED No. GNL-R20-300HPUB/15

Part No.	GNL-R20-300HPUB/15		
Emitted Color	Blue	Len's Color	Water Clear
Chip Material	GaAlInP		

Features:

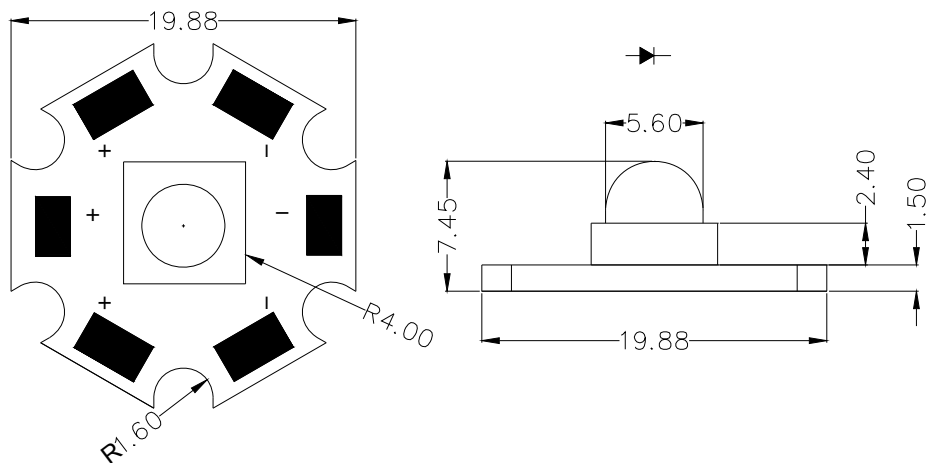
Compatible with automatic placement equipment

Compatible with reflow solder process This product doesn't contain restriction Substance, comply ROHS standard.

Applications:

Automotive and Telecommunication

General use for indicators



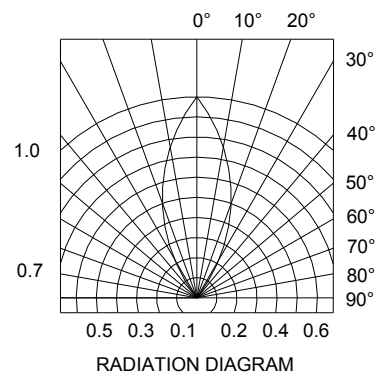
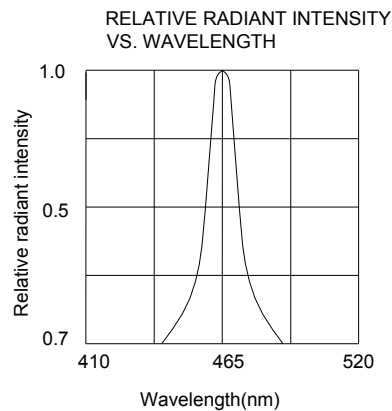
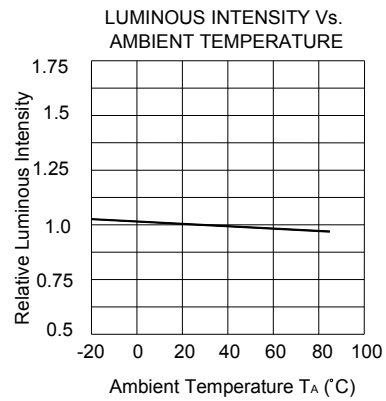
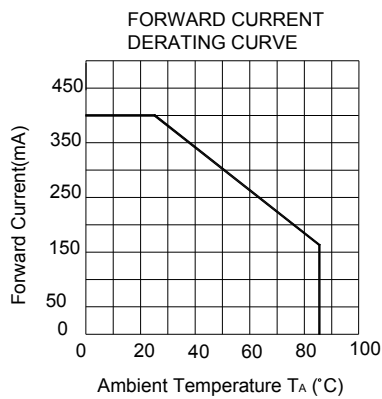
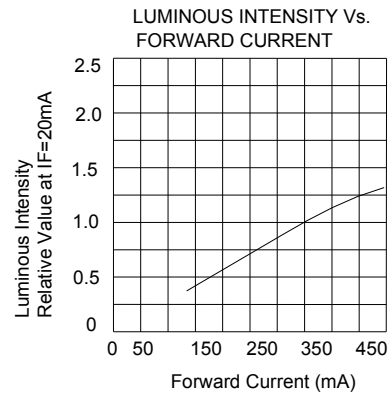
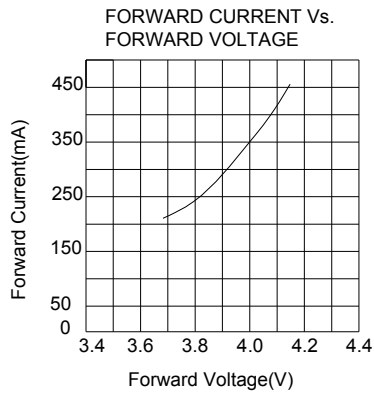
Abusolute Maximum Rating(Ta=25°C)

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I _F	350	mA
Peak Forward Current*	I _{FP}	350	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	1	W
Operation Temperature	T _{opr}	-40 ~ +100	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	

Electrical Optical Characteristics(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Unit	Test Condition
Luminous	Φ	6	12	LM	I _F =350mA
Forward Voltage	V _F	3.0	4.0	V	I _F =350mA
Reverse Current	I _R	--	10	uA	V _R =5V
Dominant Wavelength	λ _d	460	465	nm	I _F =350mA
Viewing Angle	2 θ _{1/2}	--	30	Deg.	I _F =350mA

Typical Electro-Optical Characteristics Curves



Reliability Test Items and Conditions

NO	Test Item	Test Conditions	Test Hours/Cycle	Sample Size	Judgment
1	Solder Heat	TEMP: 260±5℃	5 SEC	76 PCS	OK
2	Temperature Cycle	H: +85℃ 30min └ 5min L: -55℃ 30min	50 CYCLES	76 PCS	OK
3	Thermal Shock	H: +100℃ 5min └ 10set L: -10℃ 5min	50 CYCLES	76 PCS	OK
4	High Temperature Storage	TEMP: 100℃	1000 HRS	76 PCS	OK
5	Low Temperature Storage	TEMP: -55℃	1000 HRS	76 PCS	OK
6	DC Operating Life	TEMP: 25℃	1000 HRS	76 PCS	OK
7	High Temperature / High Humidity	85℃ / 85%RH	1000 HRS	76 PCS	OK

Cautions**1 Storage**

Before opening the package: The LEDs should be kept at 5~30℃ and 60%RH or less. The LEDs should be used within a year.

After opening the package: The LED must be used within 24 hours, else should be kept at 5~30℃ and 30% RH or less. The LEDs should be used within 7days after opening the package. If unused LEDs remain, they should be stored in moisture proof packages, recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

If the LEDs have exceeded the storage time, baking treatment should be performed more than 12 hours at 60 ± 5℃.

2 The LED electrode sections are comprised of a gold plated. The gold surface may be affected by environments which contain corrosive gases and so on. Please avoid conditions which may cause the LED to corrode or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the User use the LEDs as soon as possible.

3 Please avoid rapid transitions in ambient temperature, especially in high humidity environments where condensation can occur.

4 Static Electricity

4.1 These products are sensitive to static electricity charge, and users are required to handle with care. Particularly, if an current and or voltage which exceeds the Absolute

Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the Products. The customer is requested to take

adequate countermeasures against static electricity charge and surge when handling Products.

4.2 Proper grounding of Products , use of conductive mat, conductive working uniform and shoes, and conductive containers are effective against static electricity and surge.

4.3 Ground low-resistance areas where the product contacts, such as metal surfaces

of the work platform, with a conductive mat (surface resistance 10^6 - $10^8 \Omega$).

4.4 A tip of soldering iron is requested to be grounded. An ionizer should also be installed where risk of static generation is high.

Notes:

1 Above specification may be changed without notice. We will reserve authority on material change for above specification.

2 When using this product, please observe the absolute maximum ratings and the instructions for the specification sheets. We assume no responsibility for any damage

resulting from use of the product which does not comply with the instructions included in

the specification sheets.

Prepared date August 2006

<http://www.g-nor.com>

Page5 of 5