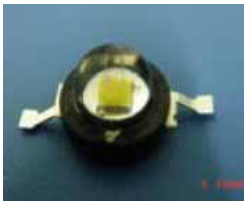
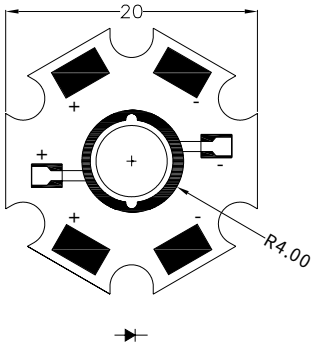
SPECIFICATIONS FOR HP LED

MODEL: GNL-L20-350HPxx

G-NOR OPTOELECTRONICS CO.,LTD.



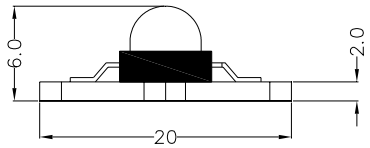


Features:

Compatible with automatic placement equipment

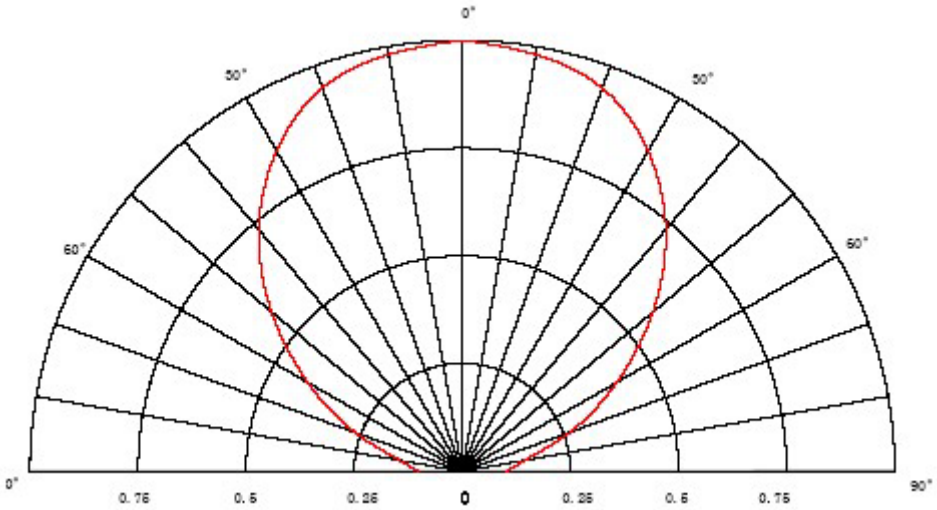
Compatible with reflow solder process

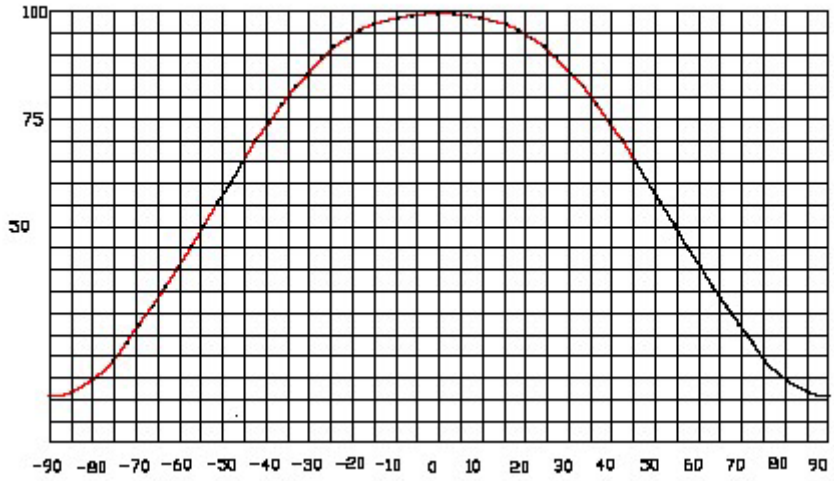
This product doesn't contain restriction Substance, comply ROHS standard.



Applications:

Automotive and Telecommunication





Flux Characteristics @ 350mA, T_j=25℃

Color	Part Number	Luminous flux ΦV(lm)			Radiation Pattern
		Min.	Typ.	Max.	
White	GNL-L20-350HPCW	80	90	100	Lambertian
Warm White	GNL-L20-350HPWW	80	90	100	
Red	GNL-L20-350HPUR	57	64	70	
Yellow	GNL-L20-350HPUY	31	35	38	
Green	GNL-L20-350HPPG	45	50	55	
Blue	GNL-L20-350HPUB	14	15	16	

Notes:

The above listed emitters are our standard series, we welcome special requirement also, you can contact our salesman for more information and serve

Optical Characteristics @ 350mA, T_j=25℃

Color	Part Number	Color Temperature CCT/ λd			Viewing Angle	Radiation Pattern
		Min.	Typ.	Max.		
White	GNL-L20-350HPCW-1	5000K	--	7000K	140°	Lambertian
	GNL-L20-350HPCW	5000K	--	7000K	140°	
Warm White	GNL-L20-350HPWW	2800K	--	4100K	140°	
Red	GNL-L20-350HPUR	615nm	--	640nm	140°	
Yellow	GNL-L20-350HPUY	580nm	--	598nm	140°	
Green	GNL-L20-350HPPG	515nm	--	535nm	140°	
Blue	GNL-L20-350HPUB	455nm	--	480nm	140°	

Notes:

The above color range is our standard specification. Actually, we can offer wider color range from 2500K to 25000K. You can contact our salesman for more information and serves.

Electrical Characteristics @ 350Ma,T_j=℃

Color	Part Number	Forward Voltage V_F			Thermal Resistance	Radiation Pattern
		Min.	Typ.	Max.		
White	GNL-L20-350HPCW-1	3.2	3.6	4.2	13	Lambertian
	GNL-L20-350HPCW	3.0	3.2	3.6	10	
Warm White	GNL-L20-350HPWW	3.0	3.2	3.6	10	
Red	GNL-L20-350HPUR	2.8	3.2	3.6	15	
Yellow	GNL-L20-350HPUY	2.8	3.2	3.6	12	
Green	GNL-L20-350HPPG	3.4	3.6	3.8	10	
Blue	GNL-L20-350HPUB	3.0	3.2	3.6	10	

Absolute Maximum Ratings

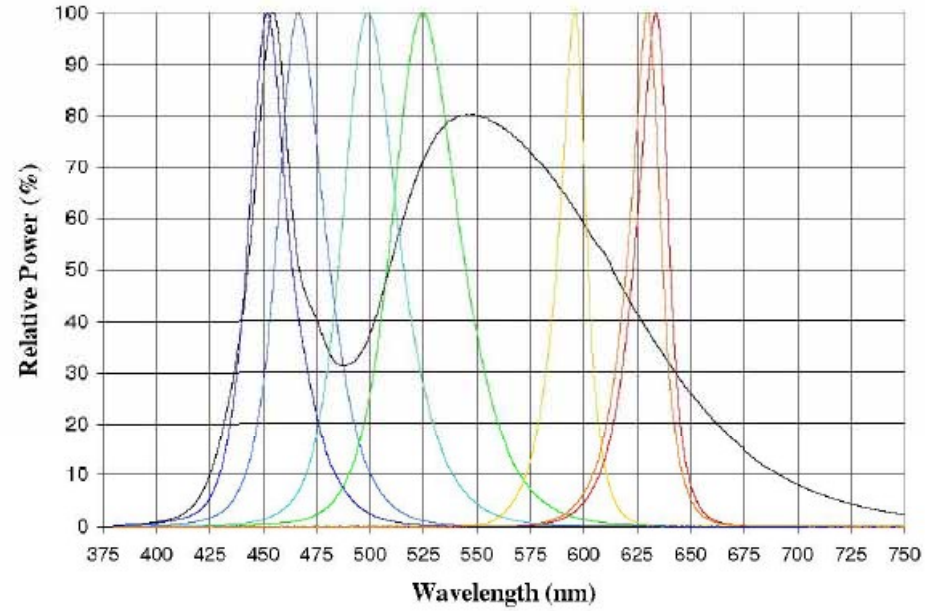
ltem	Symbol	Absolute Maximum Rating	Unit
DC Forward Current	I_F	350	mA
Peak Forward Current*	I_{FP}	500	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	1000	mW
Electrostatic discharge	ESD	±4500	V
Operation Temperature	Topr	-40~+80	℃
Storage Temperature	Tstg	-40~+100	℃
Lead Soldering	Tsol	Max.260℃ for 6 seconds Max.	

NOTES:* IFP Conditions: pulse Width≤10msec.

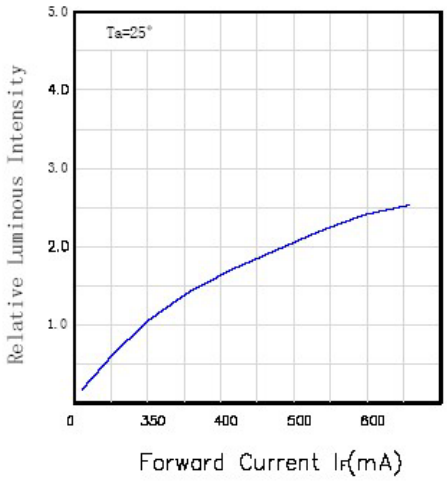
* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

* The brass column of heat sink of the high power LED is Anode. Please pay more attention to the necessary installation~when installing The heat dissipate onequipments and connecting the electric circuit in avoid of short circuit and destroying.

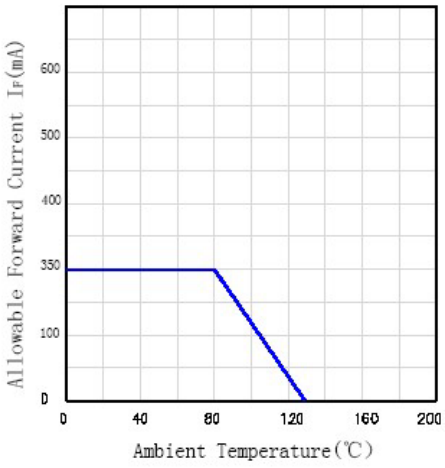
Optical Electrical Characteristics



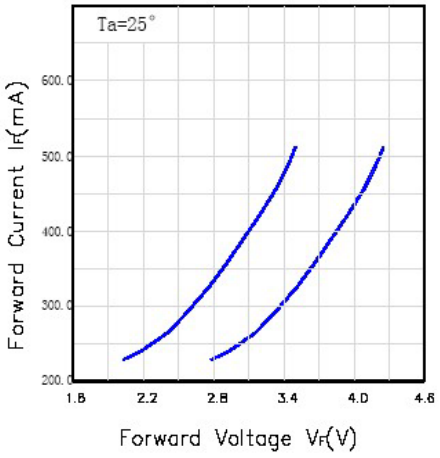
Relative Luminous Intensity - IF



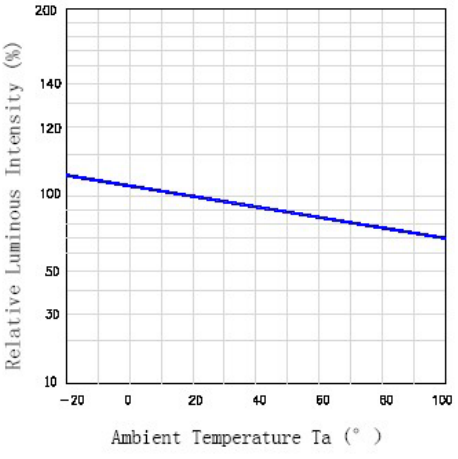
Allowable Forward Current - Ta



IF - VF



Relative Luminous Intensity - Ta



Cautions

1 Package

When moisture is absorbed into the package it may vaporize and expand during soldering. There is a possibility that this can cause exfoliation of the contacts and damage to the optical characteristics of the LEDs. So the moisture proof package is used to keep moisture to a minimum in the package.

2 Storage

Before opening the package: The LEDs should be kept at 5~30°C 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°C 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°C.

3 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.

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

5 Static Electricity

5.1 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.

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

5.3 Ground low-resistance areas where the product contacts, such as metal surfaces of the work platform, with a conductive mat (surface resistance 10^6-$10^8\Omega$).

5.4 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.