LEDGUHON 巨宏光电

PRODUCT SPECIFICATION

Part No. : JH-1RGB14G38-S2
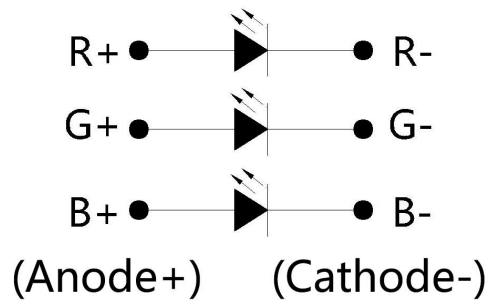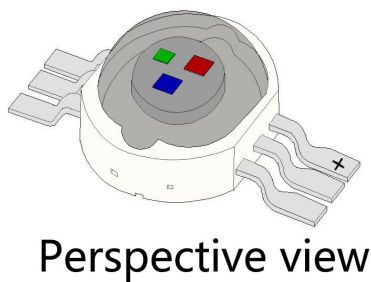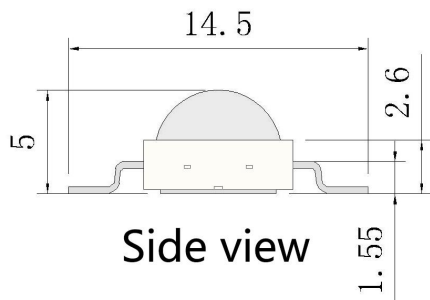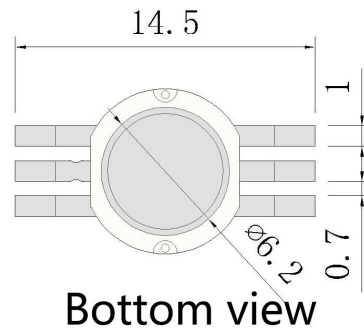## High Power LED

Catalog

1.Product Features

- High Brightness RGB LED Round Package

- Viewing Angle 140 Degree

- Transparent Silicone

- Chip Material: InGaN AlGaInP

- RoHS Compliant

2.Dimensions

Top view

Bottom view

Side view

Perspective view

R+ ▶ R-
G+ ▶ G-
B+ ▶ B-
(Anode+) (Cathode-)
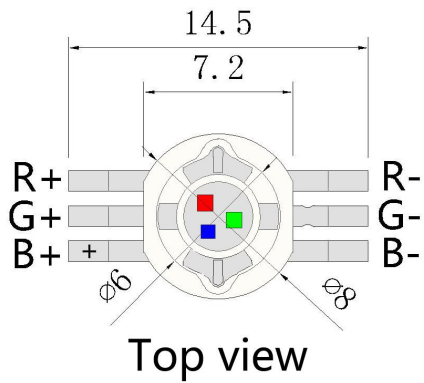
Circuit diagram

Notes:

1. All dimensions are in millimeters.

2. Tolerance is ±0.1mm unless otherwise noted.

3.Absolute Maximum Rating @ Ta=25°C

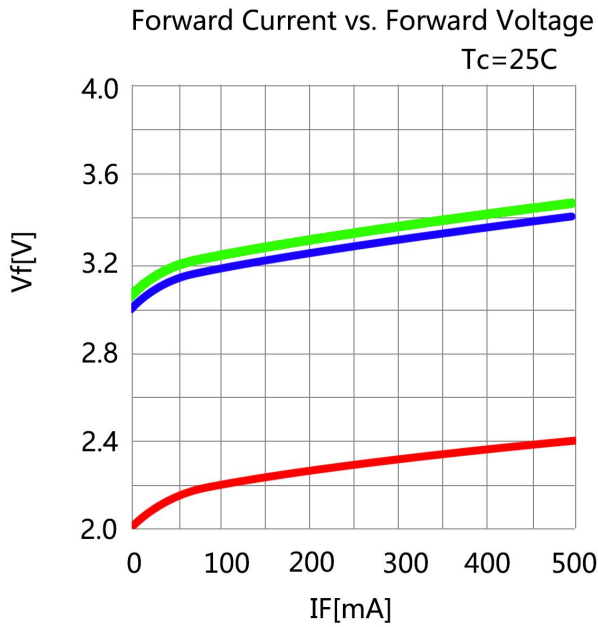| Parameter	Symbol	Maximum Rating	Unit
Continuous Forward Current	IF	350	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFp	500	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	1	W
Electrostatic Discharge	ESD	1000	V
Operating Temperature Range	TOPR	-25°C to +80°C	
Storage Temperature Range	TSTG	-35°C to +100°C	
Lead Soldering Temperature	TSOL	260°C	

4.Optical Character @ Ta=25°C

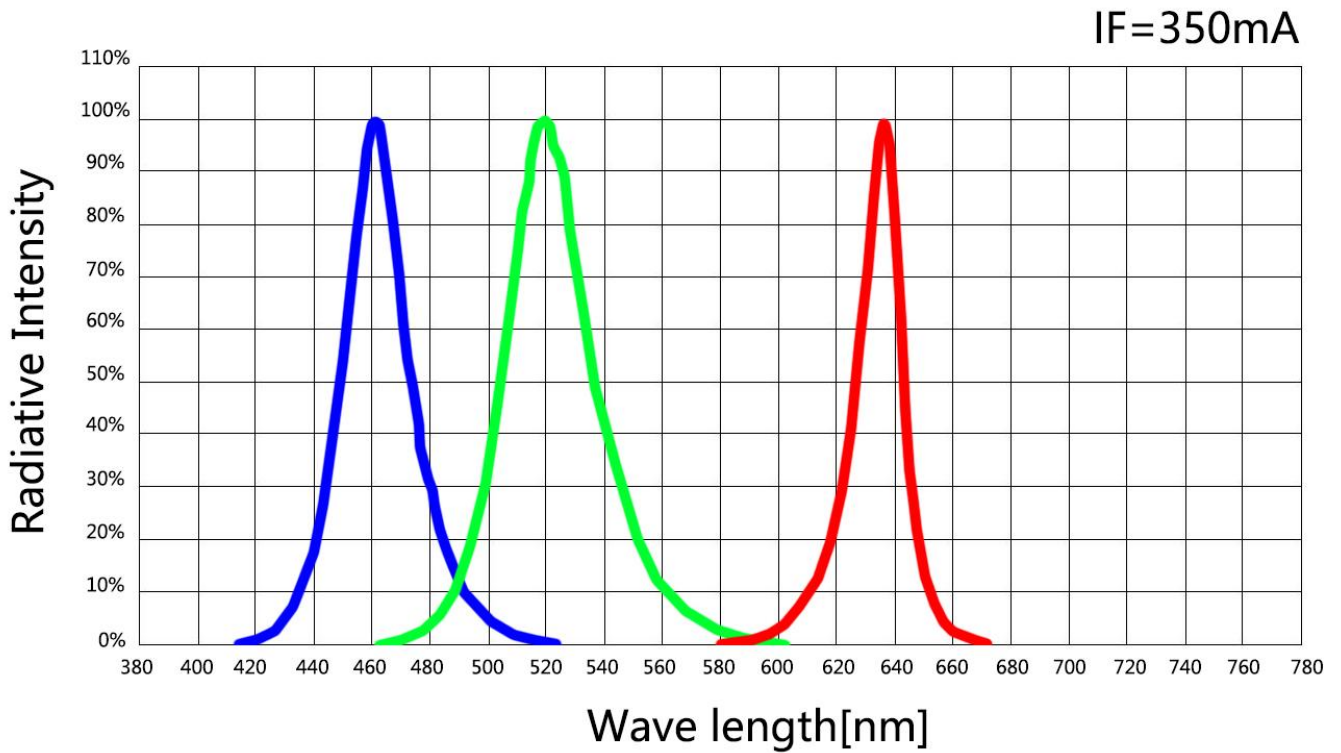| Parameter	Symbo	Color	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	VF	R	2.0	2.2	2.4	V	I_F=350mA
		G	3.0	3.2	3.4	V	I_F=350mA
		B	3.0	3.2	3.4	V	I_F=350mA
Luminous Flux	Φ	R	40	45	50	Lm	I_F=350mA
		G	60	65	70	Lm	I_F=350mA
		B	20	22	25	Lm	I_F=350mA
Dominant Wavelength	Wld	R	620	623	625	nm	I_F=350mA
		G	520	522	525	nm	I_F=350mA
		B	460	462	465	nm	I_F=350mA
Reverse Current	IR				10	μA	V_R=5V
Viewing Angle	2θ1/2			120	140	deg	I_F=350mA
Recommend Forward Current	IF(rec)	RGB			350	mA	

Notes:

Measurement tolerance of forward voltage±0.1V

5. Optical Character Curves

(25 ° Ambient Temperature Unless Otherwise Noted)

Forward Current vs. Forward Voltage
Tc=25C

Forward Current vs. Relative Luminous Flux
Tc=25C

Case Temperature vs. Forward Voltage
If=350mA

Case Temperature vs. Relative Luminous Flux
If=350mA
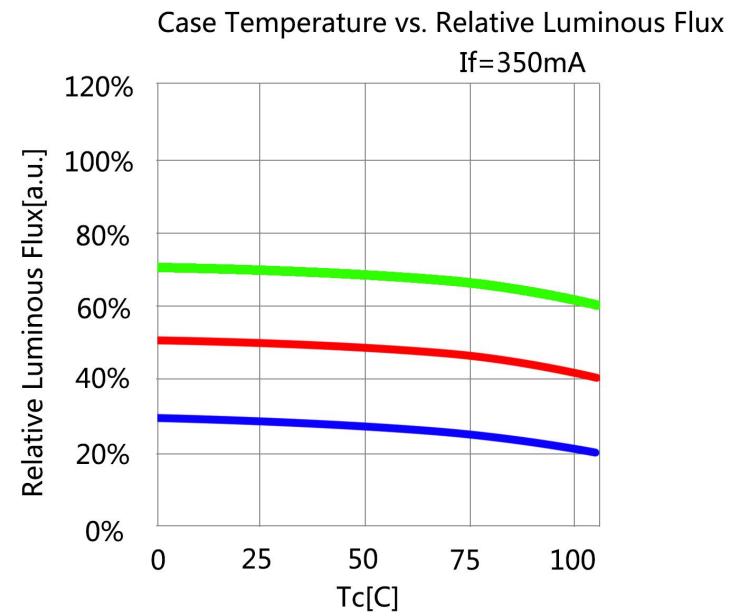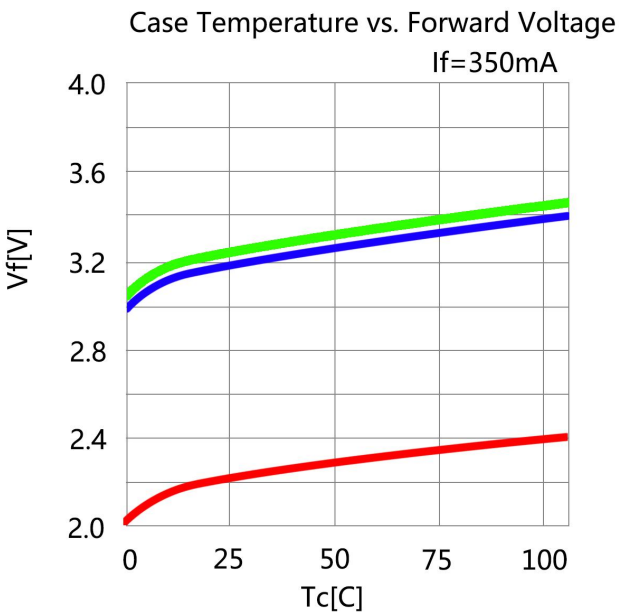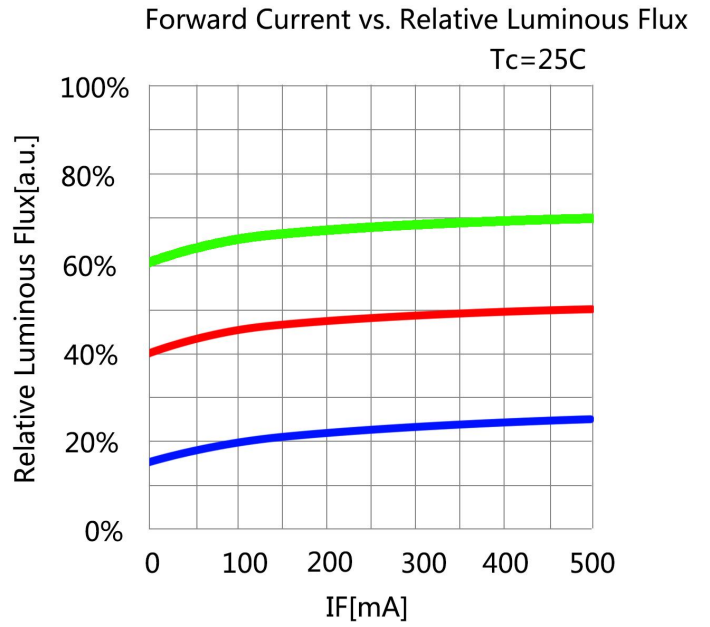
6. Spectrum Curves

IF=350mA
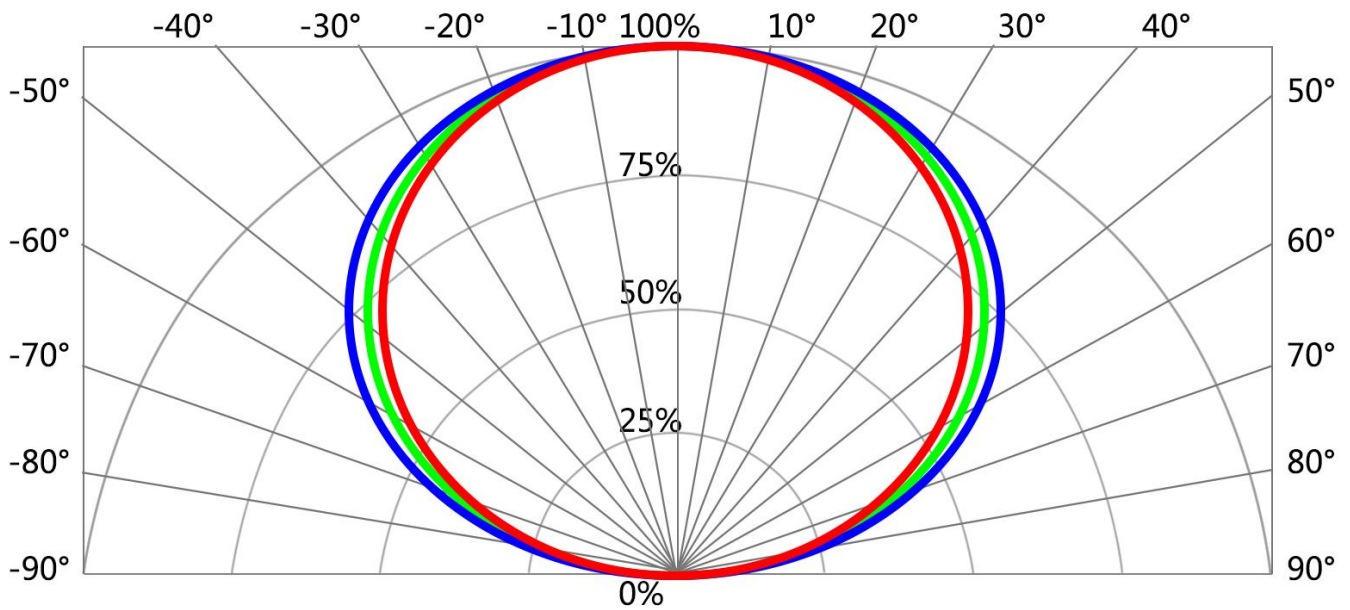

## 7. Viewing Angle Curves

Radiation Characteristic   IF=350mA

8.Tape&Reel Packing

1. Recommend unpacked LED beads be welded within one day,if not,please vacuumize again and store in an environment of 20-35℃ and 30-60% humidity. If can't vacuumize,please store LED beads in moisture proof box,control at 25℃±3℃, humidity 50-60%.If unpacked above 1week,bake at 60±5℃ for 10-12 hours before weld.
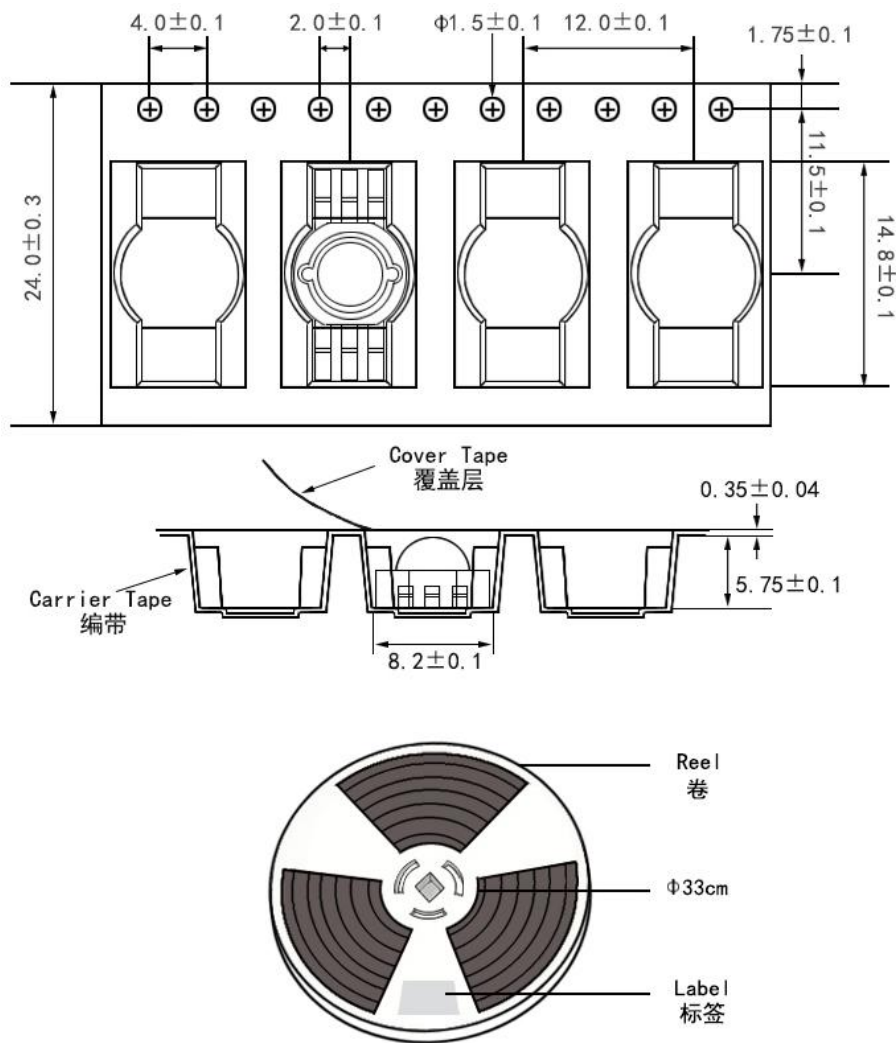
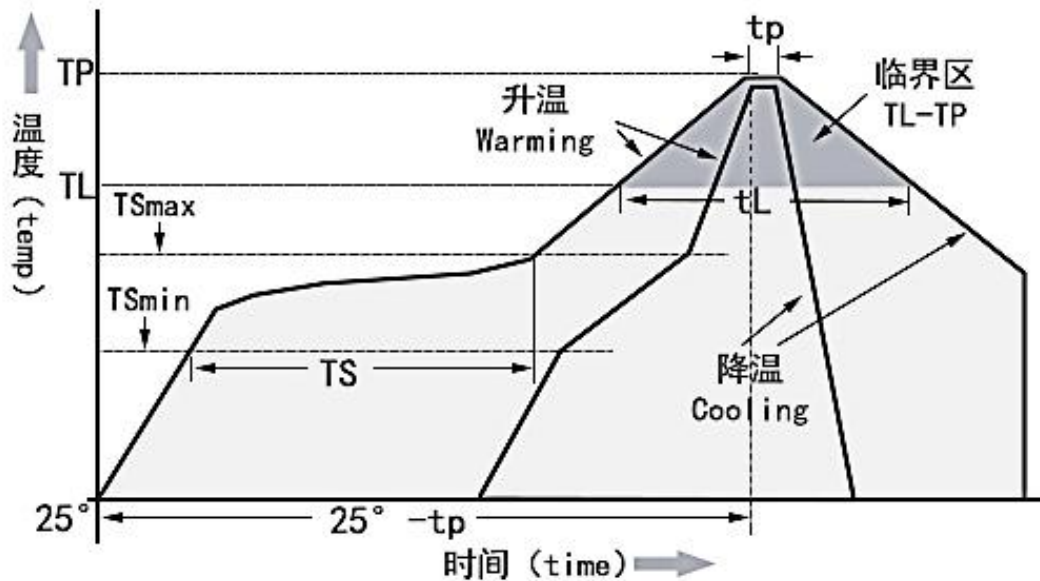## Notes:

1. QTY: 1000pcs/Reel

2. Tolerance ±0.2mm.

3. Package: P/N

9.Soldering Advice

1. When soldering,don't touch the LED appearance gel during,this bad operation will destroy the LED.Moding LED usually use reflow soldering, please refer to the following reflow temperature curve , and recommend the user follow the soldering temperature curve of the solder paste.

| Temperature Curve Character	Lead-free solder
Average heating rate(TSmin to Tp)	最高 3℃/秒 Top 3 ℃ / s
Preheating: Minimum temperature（TSmin）	90℃
Preheating: Maximum temperature（TSmax)	200℃
Preheating: Time（TSmin to TSmax)	60-180 s
Duration above temperature: Temperature TL	240℃
Duration above temperature: Time tL	60-150 s
Peak/classification temperature (Tp)	260℃
Time within 5℃ of actual peak temperature (tp)	20-40 s
Cooling speed	最高 6℃/秒 The highest 6 ℃ / s
Time to reach peak temperature at 25℃	最多 8 分钟 8 minutes Max

10.Cautions

1. Electrostatic Treatment

Do a full range of anti-static measures (such as: anti-static ring,

anti-static clothes, machine, equipment grounding wire, etc.)

2. Heat Dissipation

A、It is recommend to configure reasonable heat dissipation device for the product.

B、The best working temperature range of the product is 40-60°. It is recommended to control

the working temperature of the product within a reasonable range.
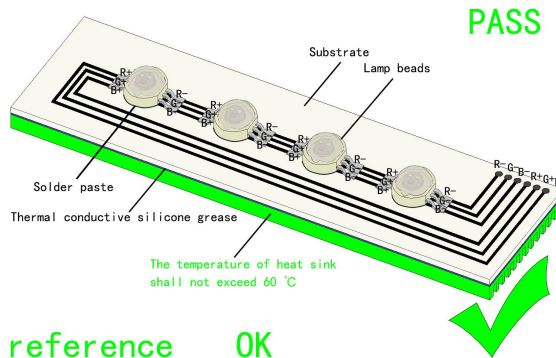
3. Installation Conditions

A、Do not exert any pressure on the LED area during the use of the led beads. If the machine is

used to take materials, select a suction nozzle of reasonable size,such as below: