

# PRODUCT SPECIFICATION



**Part No. : JH-5050RIRIRIR12DR7-T12A-ZLS650-1064**  
**High Power LED**

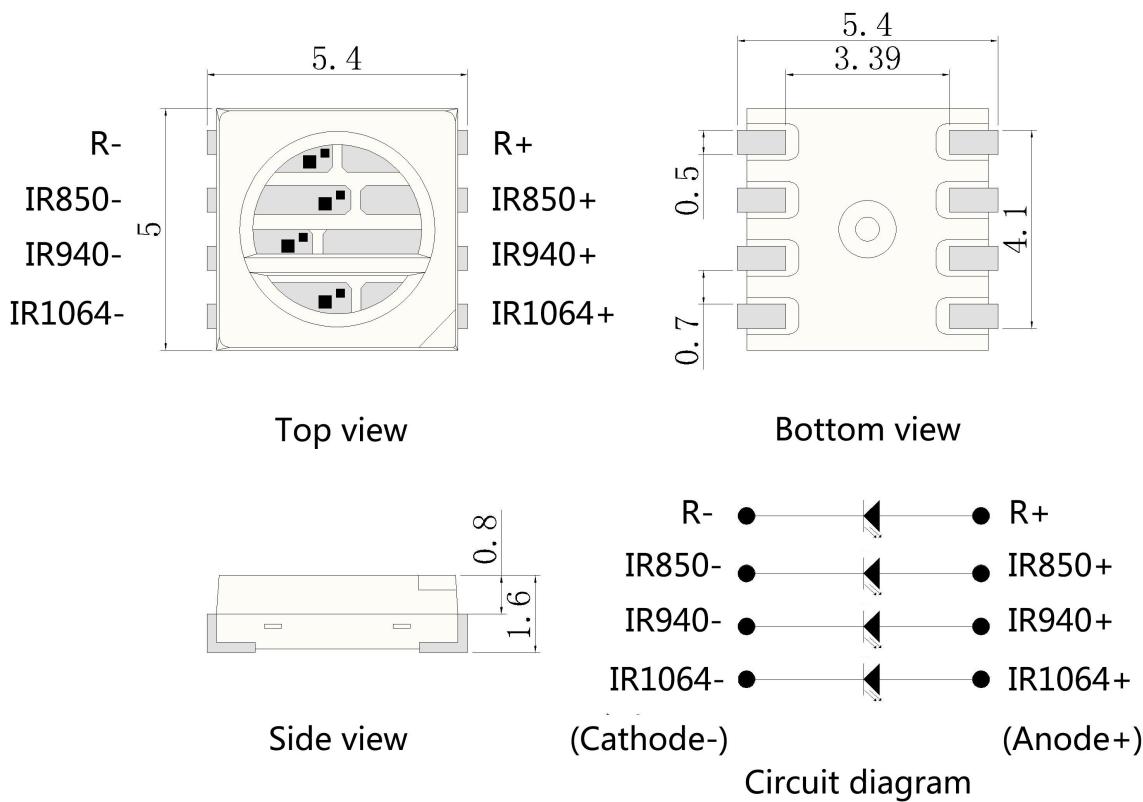
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## 1. Product Features

- High Brightness RIRIRIR LED
- Plane Package
- Viewing Angle 20 Degree
- Chip Material: InGaN AlGaInP
- RoHS Compliant

## 2. Dimensions



### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.

### 3. Absolute Maximum Rating @ Ta=25° C

Parameter	Symbol	Maximum Rating	Unit
Continuous Forward Current	IF	3/7/25	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFp	10/30	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD		W
Electrostatic Discharge	ESD	1000	V
Operating Temperature Range	TOPR	-25°C to +60°C	
Storage Temperature Range	TSTG	-35°C to +80°C	
Lead Soldering Temperature	TSOL	260°C	

### 4. Optical Character @ Ta=25° C

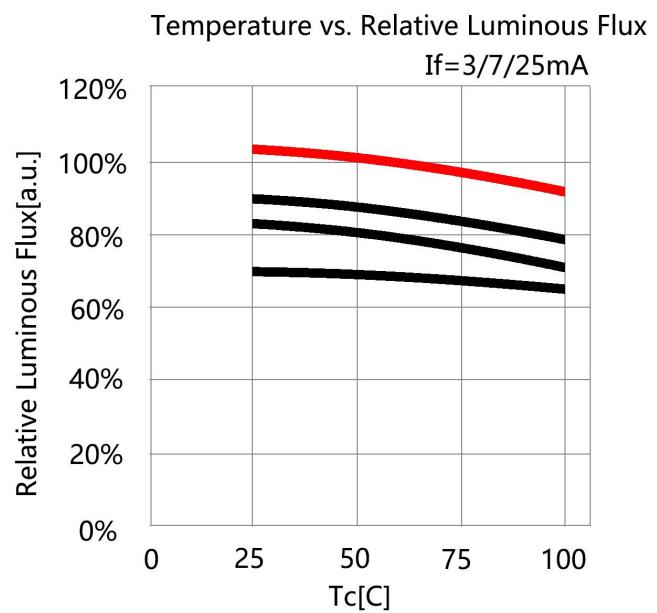
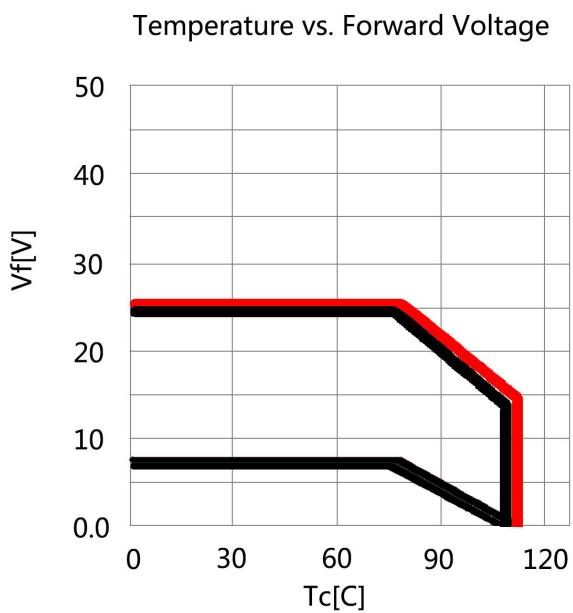
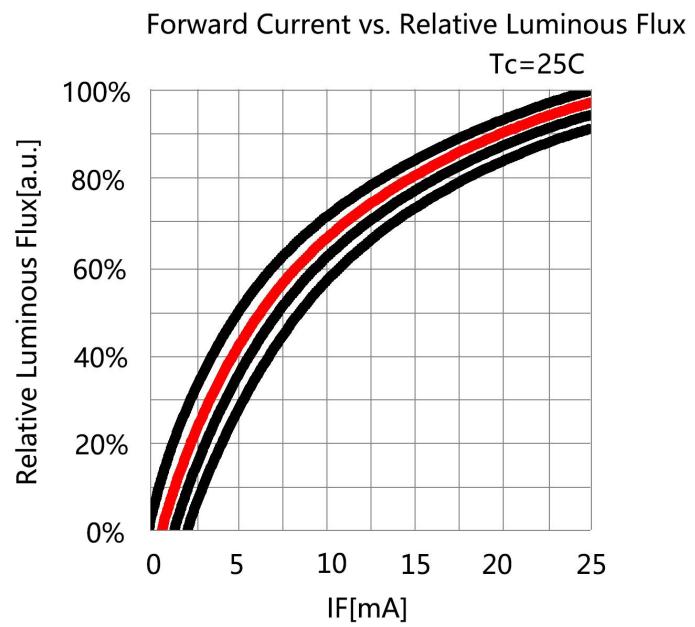
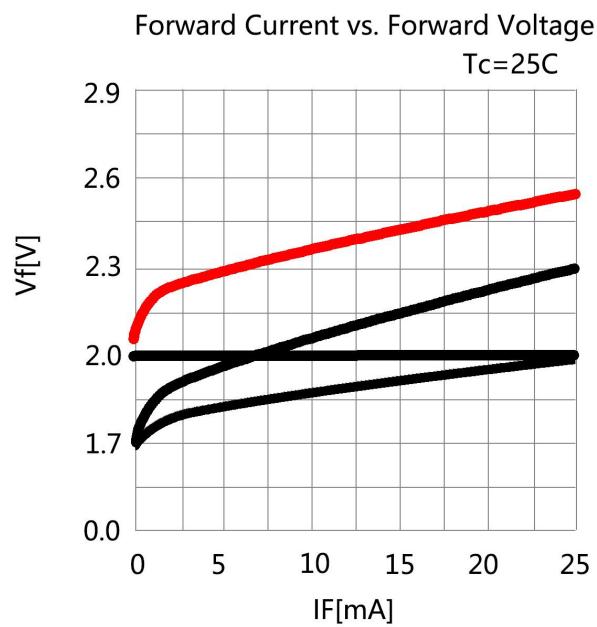
Parameter	Symb	Color	Min.	Typ.	Max.	Unit	Test
Forward Voltage	VF	R	2.1		2.5	V	I <sub>F</sub> =25mA
		IR850	1.7		2.3	V	I <sub>F</sub> =3-7mA
		IR940	1.7		2.0	V	I <sub>F</sub> =7mA
		IR1064		2		V	I <sub>F</sub> =25mA
Luminous flux	PO	R	8		15	mW	I <sub>F</sub> =25mA
		IR850	1.6		6	mW	I <sub>F</sub> =3-7mA
		IR940	5		6	mW	I <sub>F</sub> =7mA
		IR1064	9		20	mW	I <sub>F</sub> =25mA
Luminous power	Wlp	R	650	660	670	nm	I <sub>F</sub> =25mA
		IR850	840	850	860	nm	I <sub>F</sub> =3-7mA
		IR940	930	940	950	nm	I <sub>F</sub> =7mA
		IR1064	1060		1064	nm	I <sub>F</sub> =25mA
Reverse Current	IR				10	uA	V <sub>R</sub> =5V
Viewing Angle	2θ1/2				20	deg	I <sub>F</sub> =20mA
Recommend Forward Current	IF(rec)	RIRIRIR			20	mA	

#### Notes:

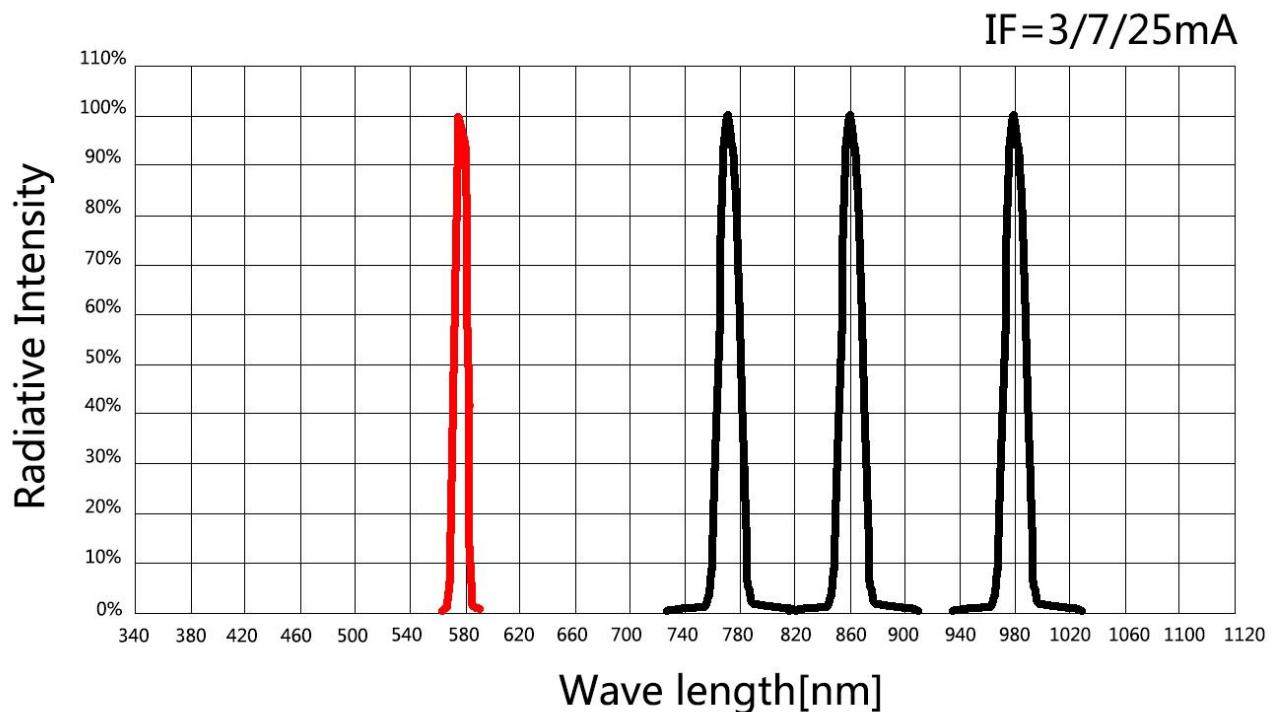
Measurement tolerance of forward voltage  $\pm 0.1V$

## 5. Optical Character Curves

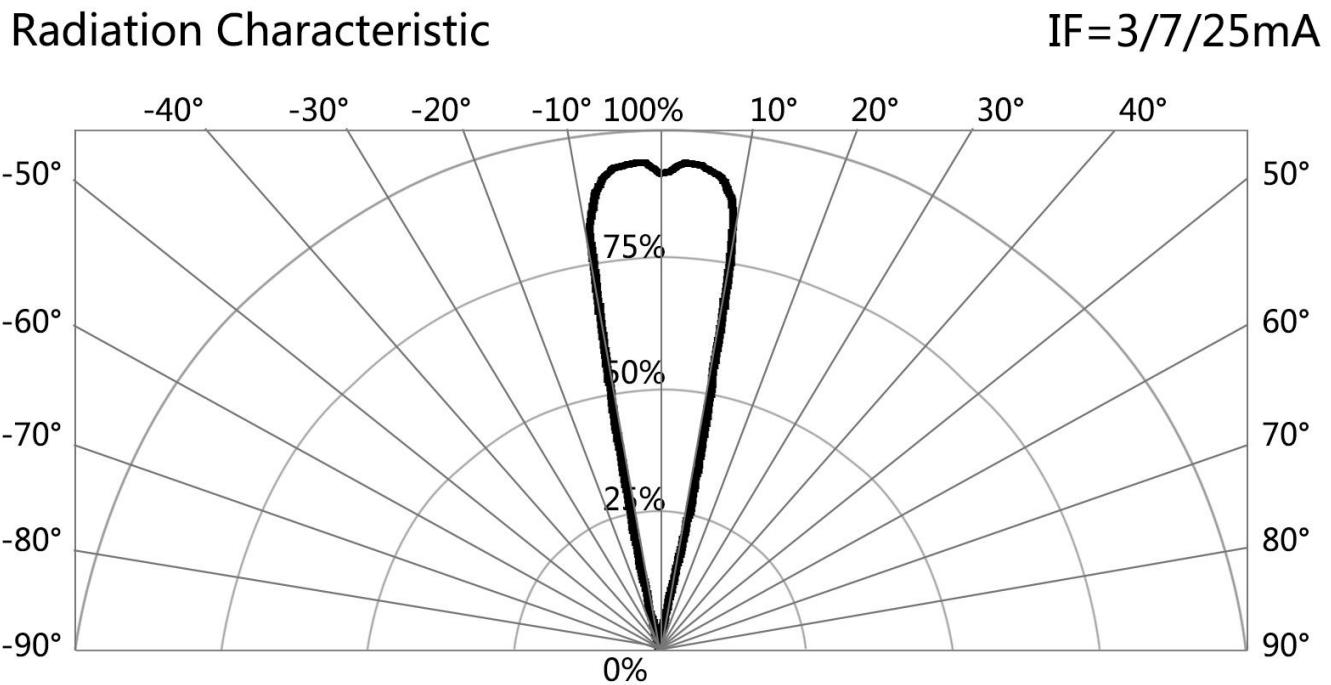
( 25 ° Ambient Temperature Unless Otherwise Noted )



## 6. Spectrum Curves

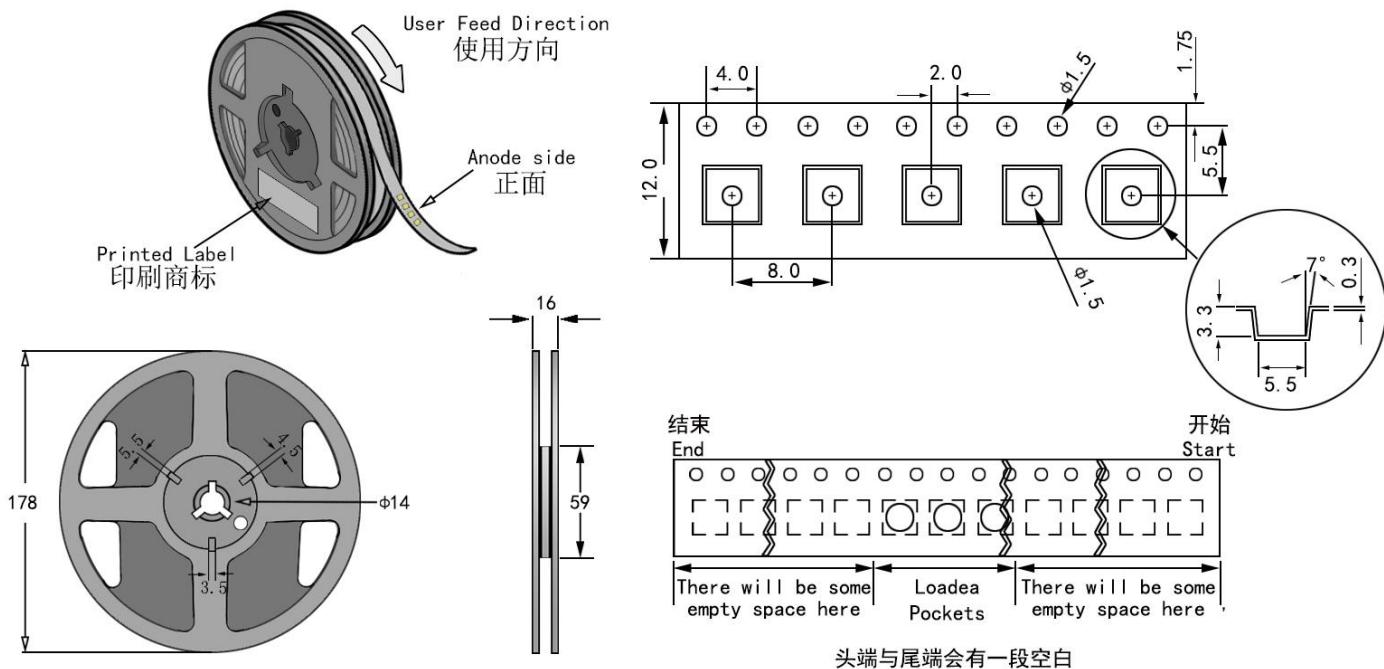


## 7. Viewing Angle Curves



## 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°C and 30-60% humidity. If can't vacuumize, please store LED beads in moisture proof box, control at 25°C±3°C, humidity 50-60%. If unpacked above 1 week, bake at 60±5°C for 10-12 hours before weld.

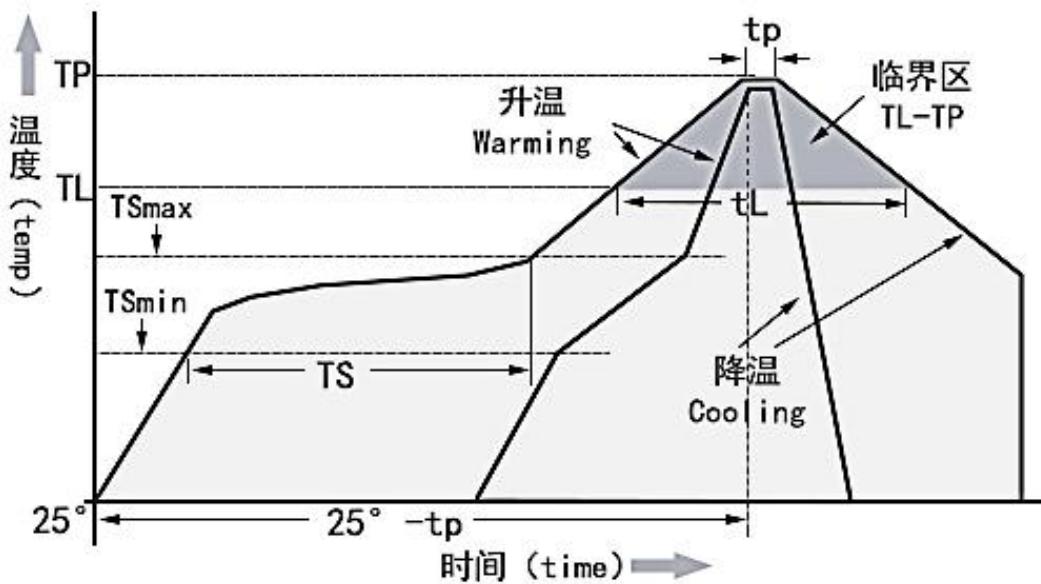


### Notes:

1. QTY: 1000pcs/Reel
2. Tolerance  $\pm 0.2\text{mm}$ .
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°C/秒 Top 3 °C / s
Preheating: Minimum temperature ( TSmin )	90°C
Preheating: Maximum temperature ( TSmax)	200°C
Preheating: Time ( TSmin to TSmax)	60-180 s
Duration above temperature: Temperature TL	240°C
Duration above temperature: Time tL	60-150 s
Peak/classification temperature (Tp)	260°C
Time within 5°C of actual peak temperature (tp)	20-40 s
Cooling speed	最高 6°C/秒 The highest 6 °C / s
Time to reach peak temperature at 25°C	最多 8 分钟 8 minutes Max

## 10. Cautions

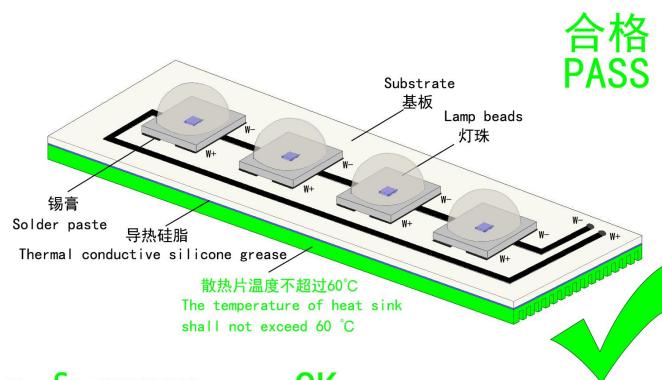
### 1. Electrostatic Treatment

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 recommended 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

reference

OK

- A、Do not exert any pressure on the LED area during the use of the led beads, such as below:

