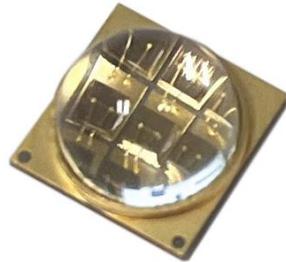


PRODUCT SPECIFICATION



Part No.: WL-10P9090EP100IR-850
SMD High Power LED

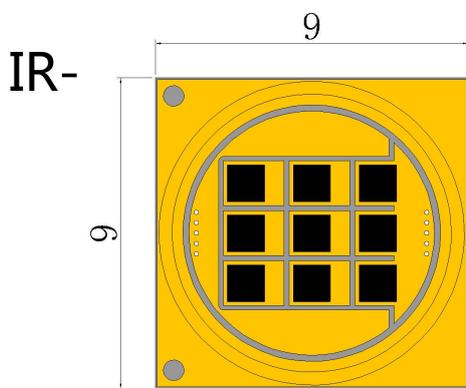
Catalog

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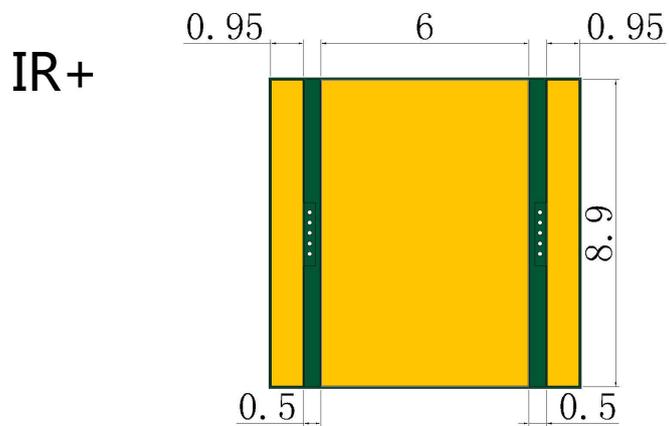
1. Product Features

- High Brightness IR LED Round Package
- Viewing Angle 100 Degree
- Chip Material: AlGaInP
- RoHS Compliant

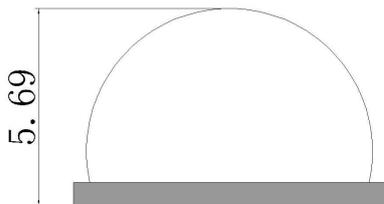
2. Dimensions



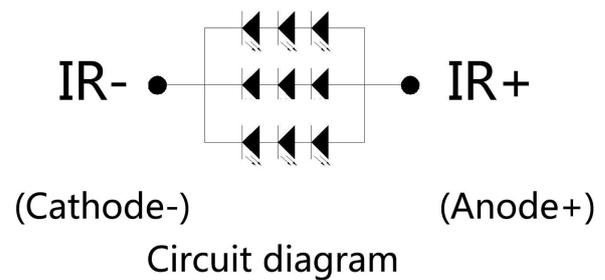
Top view



Bottom view



Side view



Notes:

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

3. Absolute Maximum Rating @ Ta=25° C

Parameter	Symbol	Maximum Rating	Unit
Continuous Forward Current	IF	2100	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFp	2300	mA
Reverse Voltage	VR	9	V
Power Dissipation	PD	10	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

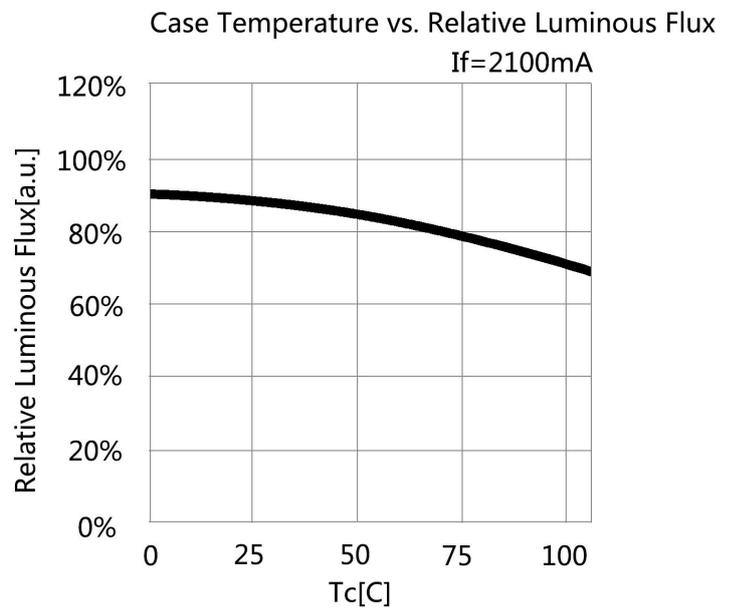
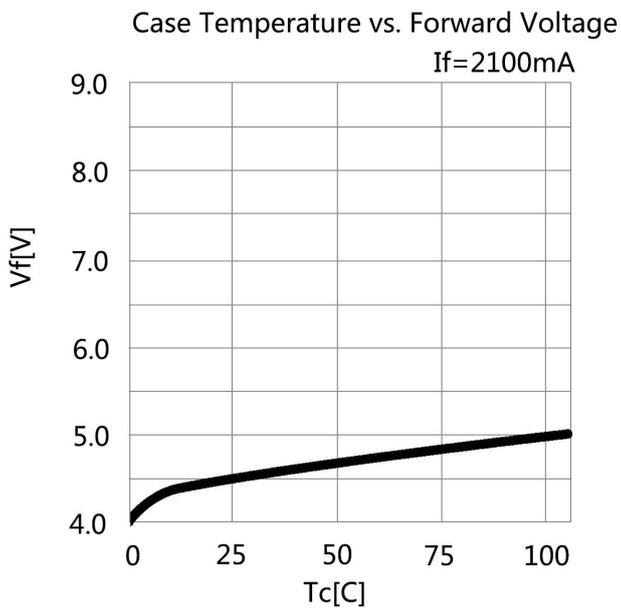
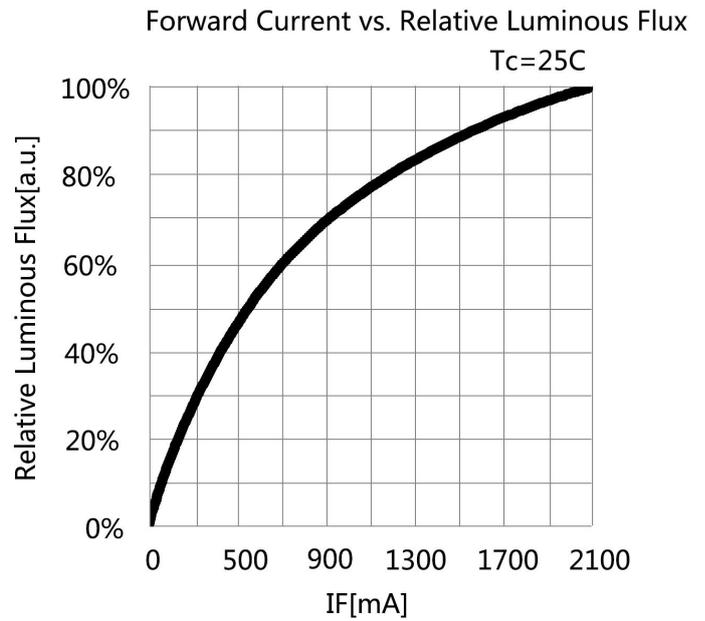
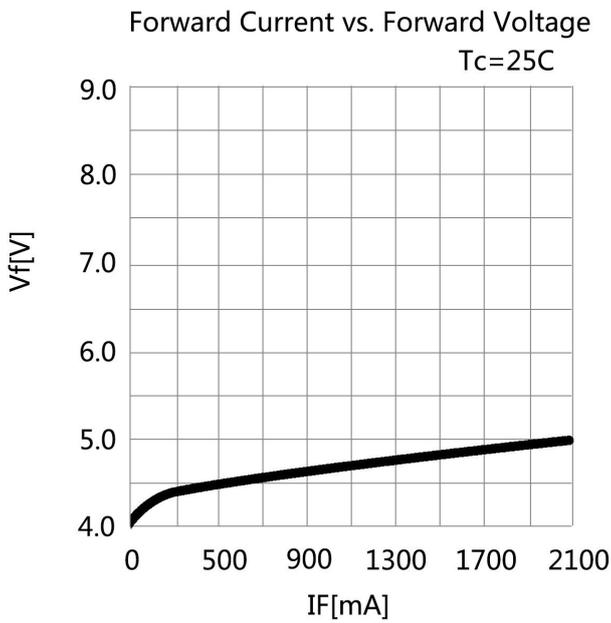
Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	VF	IR	4		5	V	IF=2100mA
Luminous power	PO	IR	3500	3750	4000	mW	IF=2100mA
Wavelength	WIP	IR	845	848	850	nm	IF=2100mA
Reverse Current	IR		0		10	μA	VR=9V
Viewing Angle	2θ1/2				100	deg	IF=2100mA
Recommend Forward Current	IF(rec)	IR			2100	mA	

Notes:

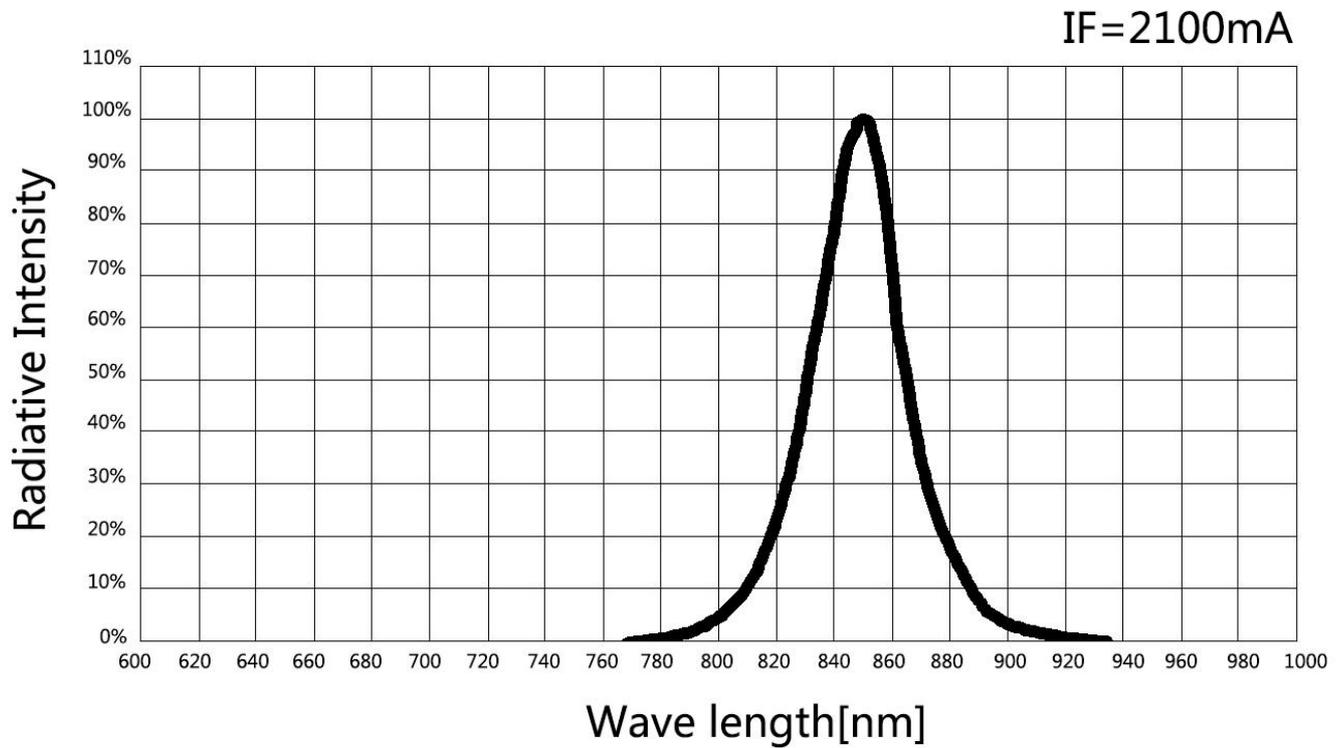
Measurement tolerance of forward voltage ±0.1V

5. Optical Character Curves

(25 ° Ambient Temperature Unless Otherwise Noted)



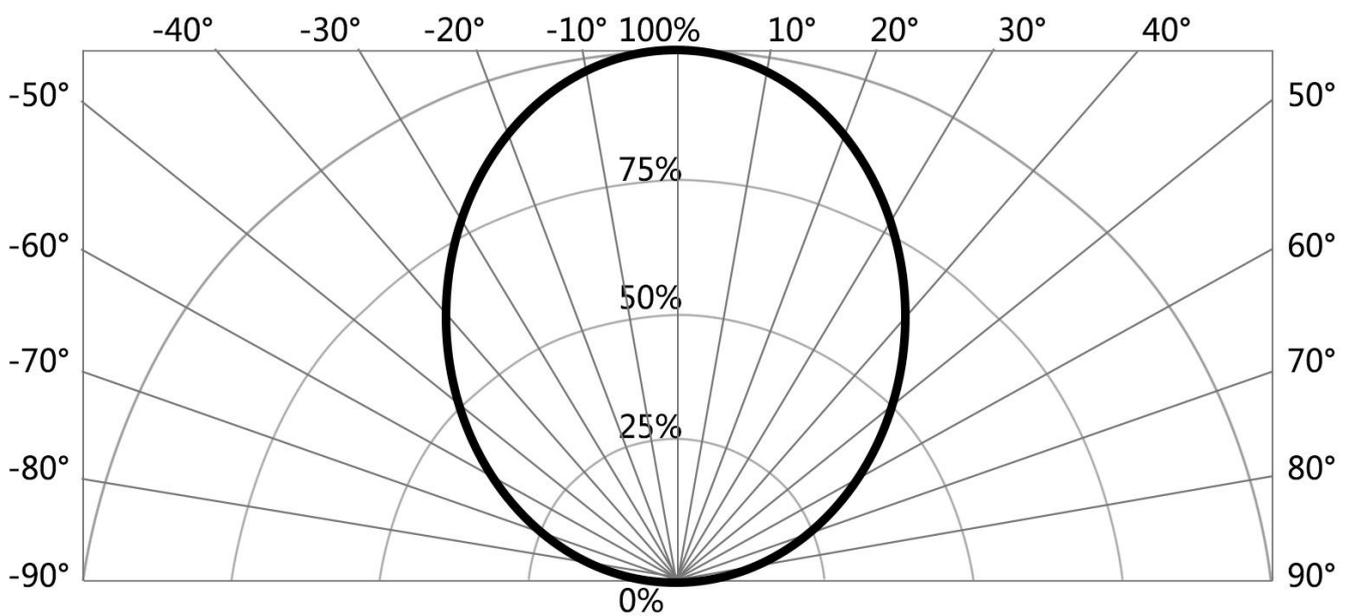
6. Spectrum Curves



7. Viewing Angle Curves

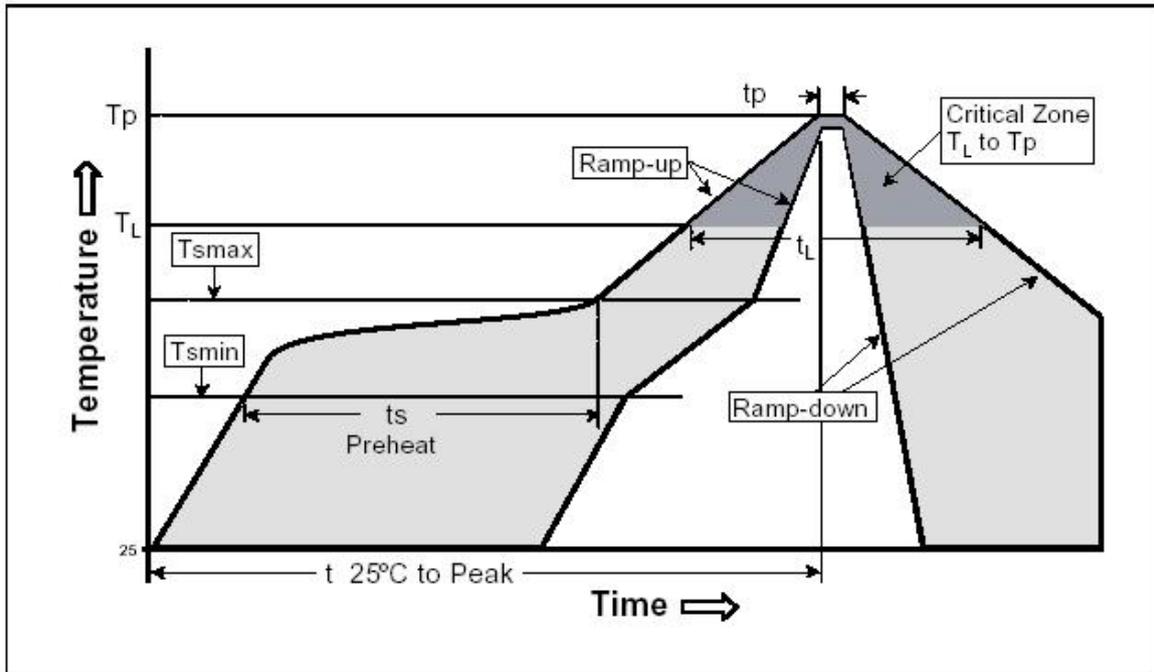
Radiation Characteristic

IF=2100mA



8.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)	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	The highest 6 °C / s
Time to reach peak temperature at 25°C	8 minutes Max

9. Cautions

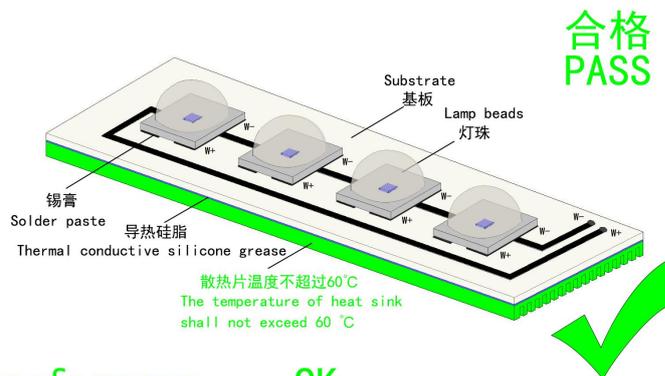
1. Electrostatic Treatment

Do a full range of anti-static measures (such as: anti-static ring, anti-static clothes, machine, equipment grounding wire, etc.)



2. Heat Dissipation

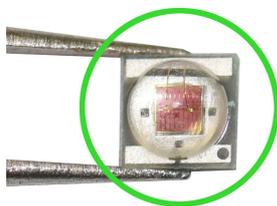
- A、 It is recommend to configure reasonable heat dissipation device for the product.
- B、 The best working temperature range of the product is 40-60°. It is recommended to control the working temperature of the product within a reasonable range.



3. Installation Conditions

reference OK

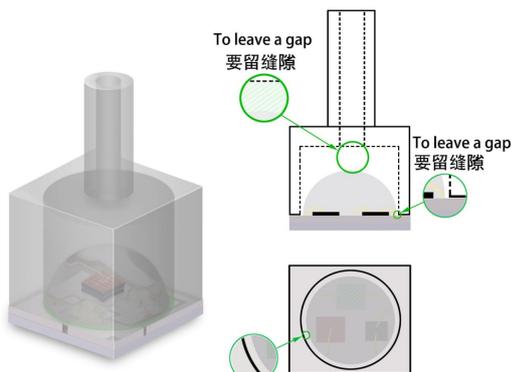
A、 Do not exert any pressure on the LED area during the use of the led beads. If the machine is used to take materials, select a suction nozzle of reasonable size, such as below:



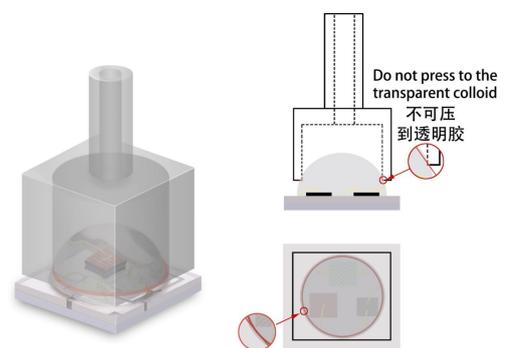
OK



NG



OK



NG