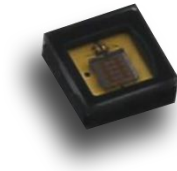

Deep UV LED SPECIFICATIONS

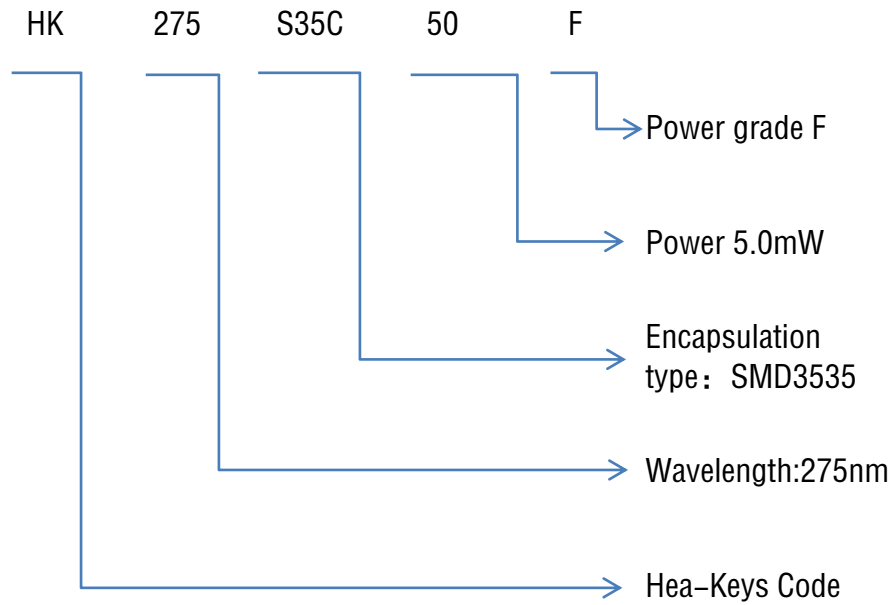


HK275S35C-50-F



REV: V001

1、Product naming rules



For example: HK275S35C-50-F

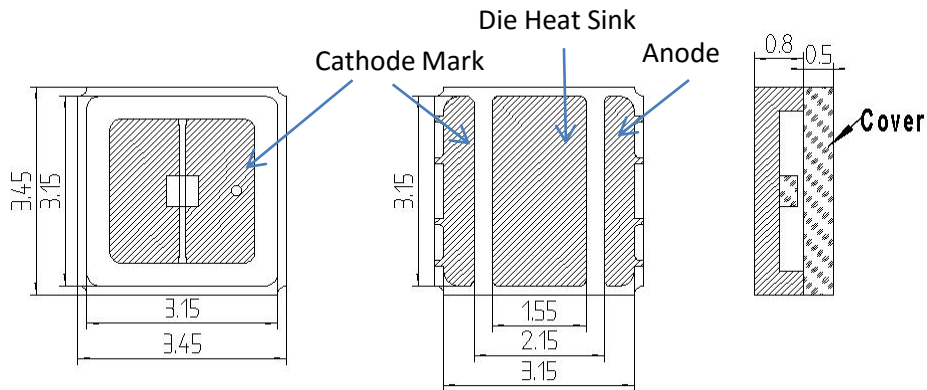
Product wavelength: 275nm

Encapsulation type: Ceramics SMD3535

Chip output power: 4.0-6.0mW

2、 Size

(Tolerance : ± 0.2 , Unit :mm)



In order to have a stable output, UV LED need a very good heat release enviroment or a good heat release system. We suggest the temperature of holder could not be over 50℃ when LED is working.

3、 Limitation use conditions

Project	Unit	Range
Working temperature	℃	Minus 30~60
Storage temperature	℃	Minus 30~100
Max welding temperature	℃	170~180

Note: It will affect the quality of the equipment,even broken if out of the limitation of the LED use confition. It is not recommended to operate over the above limits

4、 Optoelectronic parameter value (TA=25℃)

Parameter	Unit	Condition	Max	Ave	Min
Forward voltage	V	IF=100mA	5	6.5	8
Output power	mW	IF=100mA	4	5	6
Peak wavelength	nm	IF=100mA	270	275	285
Half wave width	nm	IF=100mA	9	11	14
Luminescence angle	deg			120	
ESD(H.B.M)	V		4000V		

Note:

- ①: Output power measurement tolerance is 10%
- ②: Voltage measurement tolerance is 0.1V
- ③: Wavelength measurement tolerance is 1nm
- ④: Average Pulse: (Frequency1KHZ, Bias:5%);
The biggest working electric curren:300mA;Average Pulse

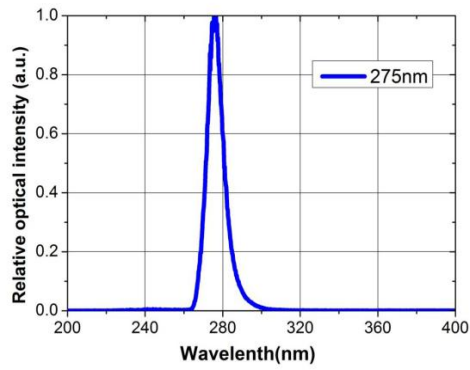
5、 Output power levels

30	40	50	60
2.0~3.0mW	3.0~4.0mW	4.0~5.0mW	5.0~6.0mW

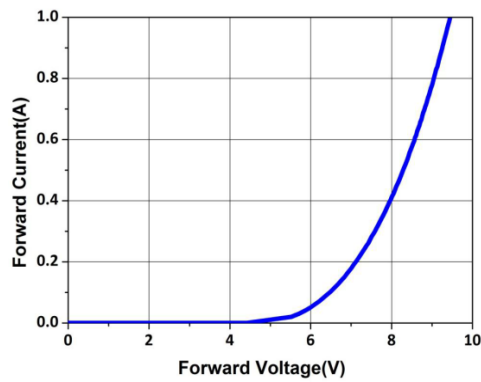
6、 Photoelectric characteristics

(TA=25 °C)

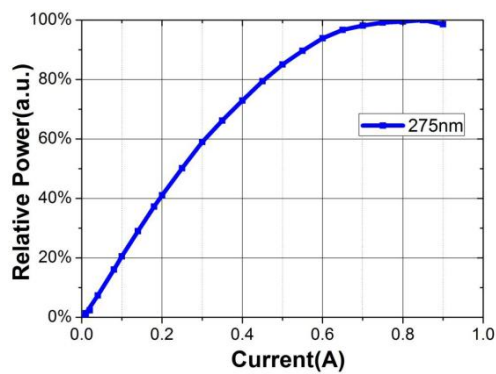
Relative spectral distribution



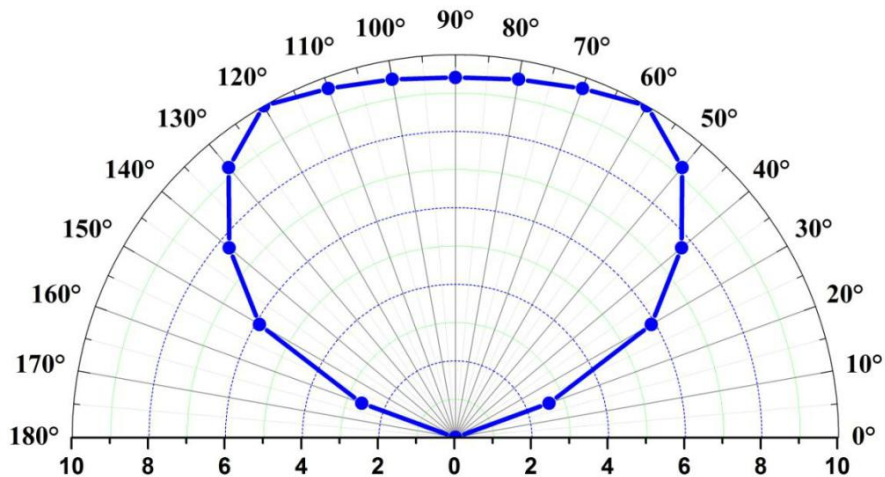
I-V Characteristic



Radiated power VS current



7、 Typical light distribution curve



Light distribution curve 120° (for reference only)

8、 Instructions

(1) LED storage: suggest to sealed stock in under the temperature of 10°C–55°C , humidity of 30%–65%.In order to keep a good quality, pls use it within 1 year after the prodcution date; and use it out within 28days after open the package.

(2) When taking or touch the LED, pls make sure to wear the gloves. Seal the package in time in orde to avoid the pin oxidation. When opening the package, need to use the weezers clamped on both sides of LED in order not to touch the face of the LED.

(3) Installation: This process is mainly to protect the static electricity :

① Check if the grounding wire of the machine equipment is normal before production;

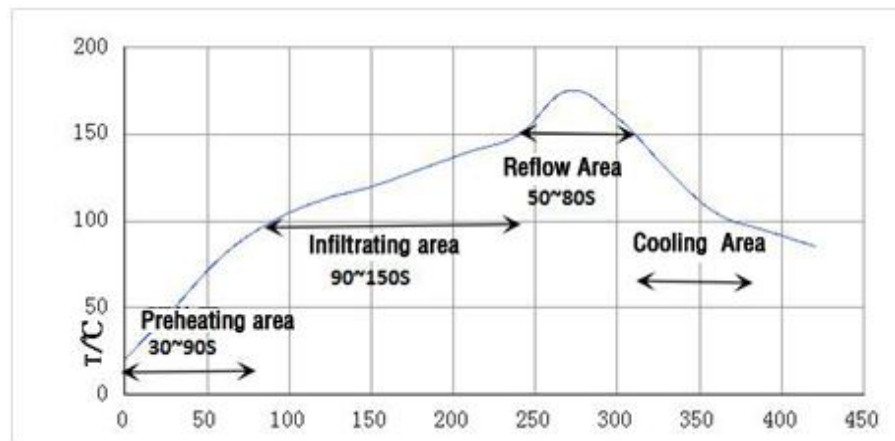
② Check if the static ring is normal, check static metal and human skin contact closely;

③ Check if the workers wear anti-static gloves;

④ Check if the working table is paved with electrostatic rubber cloth, and the rubber cloth is connected to each other.

⑤ After opening the seal, it is better to use it out in 24 hours, otherwise it may cause the oxidation of the foot.

(4) It is recommended to use low temperature solder paste for reflow, and the temperature curve is shown in the following diagram.



① Preheating area

The temperature speed is 1.0–3.0°C/S. If the temperature rises too fast, it is easy to cause paste mobility and component deterioration, then cause the tin explosive and phenomenon.

② Infiltrating area

The temperature is 110–130°C, 90–100s is the most suitable. If the temperature is too low, then the solder will not melt if it is reworked. It is recommended that the temperature rise speed is <2°C/s.

③ Reflow Area

The peak temperature should be set at 170–180°C. The melting time suggests to adjust to 50–80 seconds when above 138°C

④ Cooling Area

Temperature cooling speed is better <4°C/s.

(5) With the increase of current and temperature, the life of LED will decrease, which leads to the acceleration of the attenuation of LED.

(6) It is suggested that a grounding circuit should be used in the design of PCB. Pay special attention to the usage environment of LED: the temperature is between -30°C to 55°C , and the humidity is between

(7) We have been making constant efforts to improve the performance of LED products. Pls contact us for the latest specifications.

****Major security tips****

This product is a deep ultraviolet LED, which will produce ultraviolet light after the correct operation of electricity. Thus it is harmful to the skin and eyes of the human body. No protective measures should be avoided directly in deep ultraviolet light.

It is recommended to wear protective clothing, gloves and glasses during operation

