

Part No./型号: SEL-3535-UVC270-6V100_45

SPECIFICATION FOR APPROVAL

Customer			
Specification			
Deliver Date			
Basic parameters			
Special Requirements			
Issued	Checked	Approved	Approved Signatures
Minghua Chen	Chao Mi	Yaohua Zhang	
Customer conditions and comments :			

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Product introduction

This series of deep uv packaging products are specially designed for applications with high radiation power and directivity requirements. The surface of the packaging body in the form of a patch device, and the use of special uv glass, so as to optimize the product life and performance. It can be used in plant lighting, fluorescence analyzer, medical testing, food and pharmaceutical processing, sterilization and other fields.

Features:

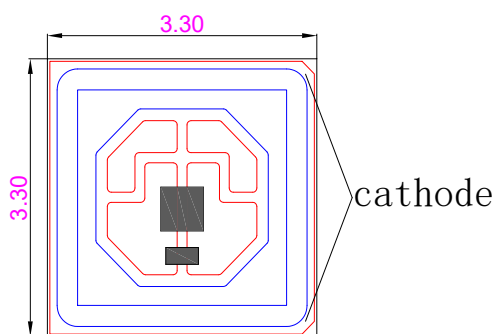
- ✧ Ceramic packaging
- ✧ Standard SMT process
- ✧ ROHS standard

Contents

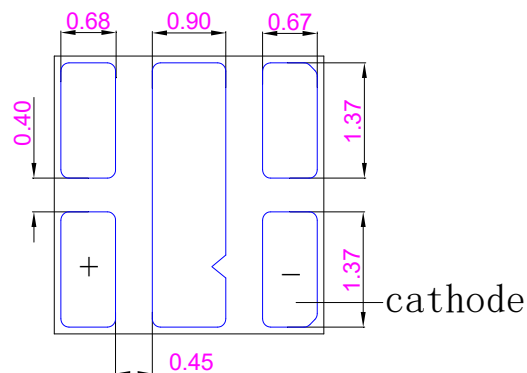
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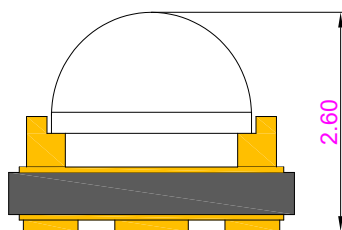
Outline dimensions: (Unit: mm, The tolerance $\pm 0.15\text{mm}$)



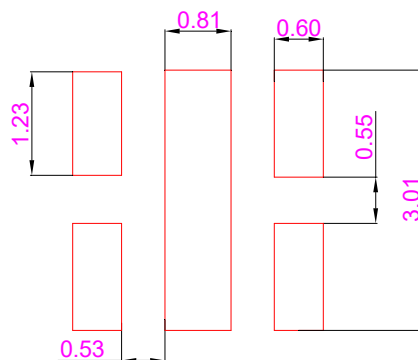
Top



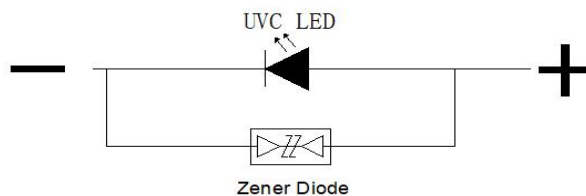
Bottom (Perspective)



Side



Recommended Mask Size



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Photoelectric properties (Ta = 25°C)

Parameter	Forward current	Symbol	Min.	Typ	Max	Unit
The peak wavelength	If=100mA	λ_p	265	270	280	nm
Output Radiated power		P_{opt}	15	20	35	mW
Forward Voltage		V_f	5.0	6.0	6.4	V
FWHM		$\Delta\lambda$	9	10	11	nm
Viewing Angle		$2\theta_{1/2}$	--	45	--	°
(Tj-Tsp)		Rth	--	/	--	°C/W

Instructions: Tc = 25°C; The tolerance of Forward voltage: $\pm 0.1V$; The tolerance of Radiation flux: $\pm 8\%$; The tolerance of peak wavelength : $\pm 3nm$.

Radiated power Rank (Ta = 25°C)

Radiated power Bin code	Rank (mW)	Forward current
	15-20	If=100mA
	20-25	
	25-30	
	30-35	

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Forward Voltage Groups Rank (Ta = 25°C)

Voltage Bin code	Rank (V)	Forward current
	5.0-5.4	If=100mA
	5.4-5.8	
	5.8-6.2	
	6.2-6.4	

Wavelength Groups Rank (Ta = 25°C)

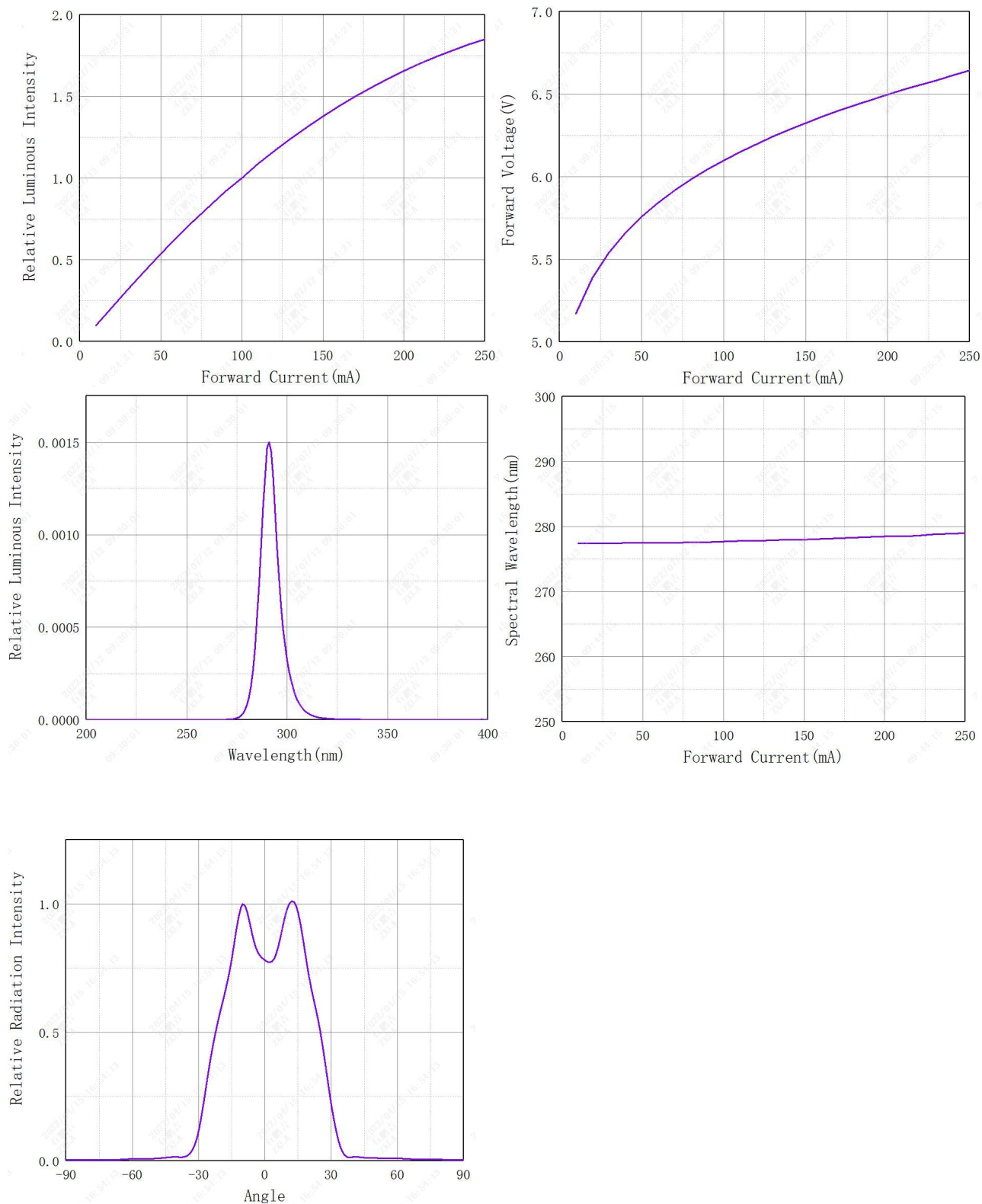
Voltage Bin code	Rank (nm)	Forward current
	265-270	If=100mA
	270-275	
	275-280	

Limit service condition:

Parameter	Symbol	Unit	Range
Forward current	If	mA	≤200
Junction temperature	Tj	°C	≤90
Working temperature	Topr	°C	-30-60
The welding conditions	Tsol	-	260°C < 5seconds

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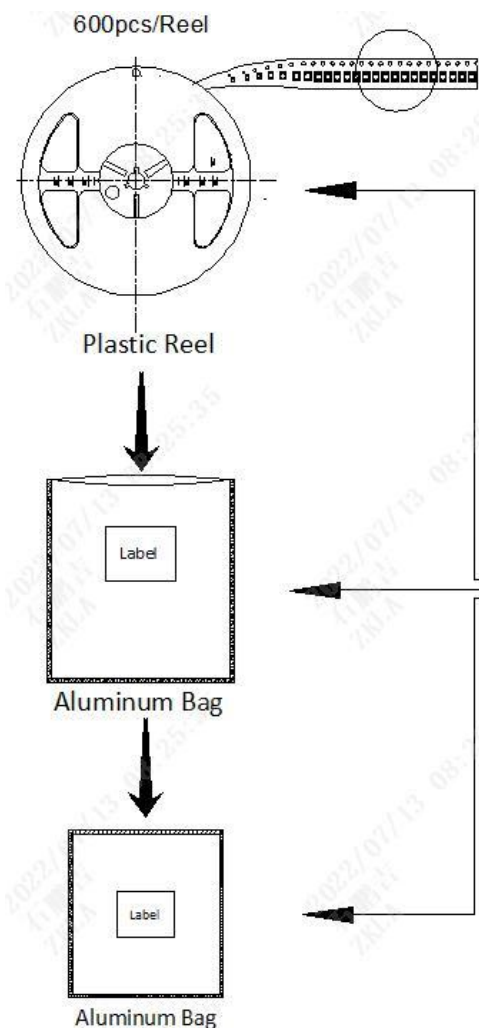
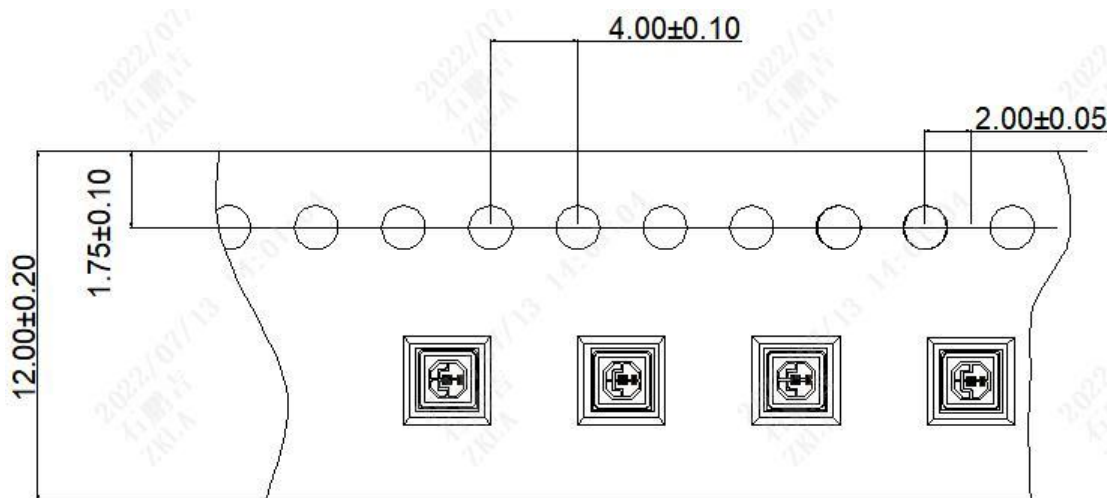
Characteristics Graf:



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Package specification

(单位: mm)



No:
P/N: SEL-3535-UVC270-6V100_45
IV code:
VF code:
Λ/Tc code:
IF: 100mA
Lot No:
Cus No:



RoHS

IV: 20-25MW
VF: 5.4-5.8V
Λ/Tc : 270-275nm
Q'ty: 600PCS QC
Date:

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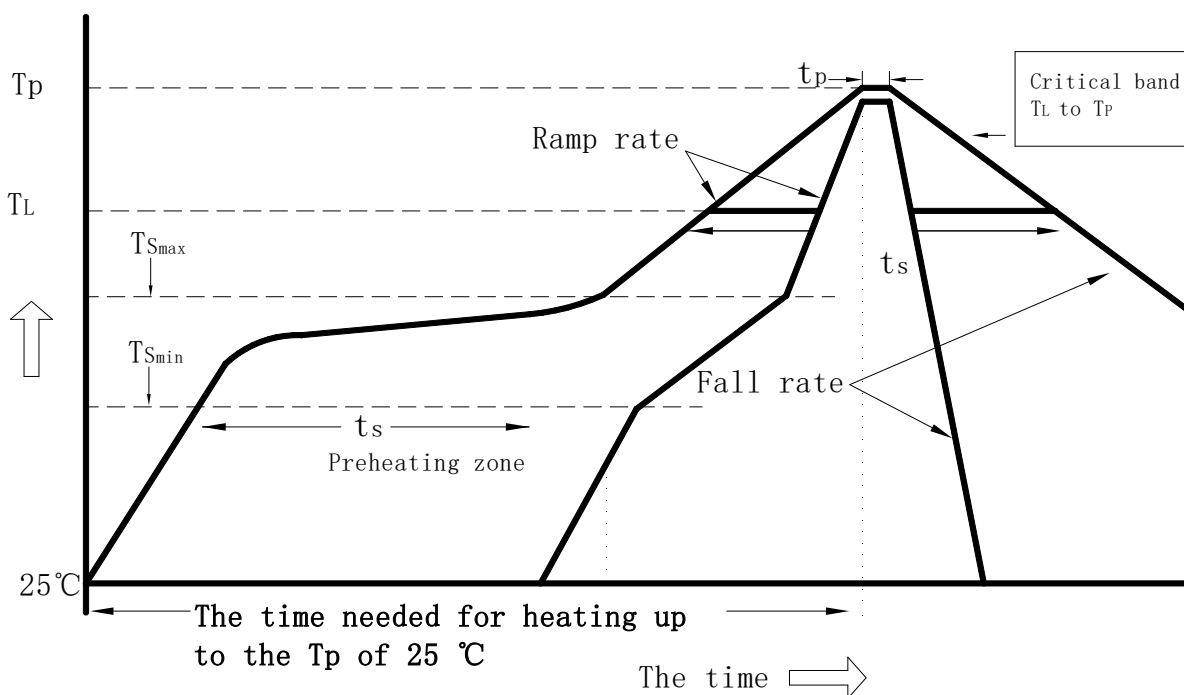
Reliability test

Test	Test Conditions	Failure Criterion
Normal temperature life test	25°C, 100mA, 1000Hours	Forward voltage, $V_f > 110\%$
High temperature storage	100°C, 1000Hours	
Low temperature storage	-40°C, 1000Hours	
Temperature cycle (100times)	-40°C (30mins) ~ +25°C (5mins) +100°C(30mins) ~ +25°C (5mins)	Radiation power, $P_{opt} < 70\%$

Notice:

Test the device at room temperature

Recommend suitable temperature curve formula



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Temperature curve characteristics	Lead-free solder
Ramp rate (T _{Smax} to T _P)	Max 3°C/S
Preheat: minimum temperature(T _{Smin})	150°C
Preheat: maximum temperature(T _{Smax})	200°C
Maintain a higher temperature: temperature (T _L)	60-180 S
Liquid temperature (T _L)	217°C
Maintain a higher temperature: time (T _L)	60-150 S
T _p /temperature	260°C
Specify the time within 5°C of the actual peak temperature	20-40 S
The slope rate (T _p to T _L)	Max 6°C/S
The time needed for heating up to the T _p of 25 °C	Max 8 min

Precautions for storage and operation**Storage**

LEDs should not be exposed to corrosive gases. The following storage conditions are recommended: Before unsealing the sealed bag: storage temperature: 10 ~ 30 °C, relative humidity: < 60% RH. Under the above storage conditions, the shelf life is within six months.

After unsealing the sealed bag: the product should be welded within 24h; if it is not used up, the product should be in the moisture-proof packaging bag with dryer.

After 24 hours, it needs to be re sealed and stored. Before the next use, dehumidification measures Should be taken. The dehumidification conditions are 60 °C and 6h.

Electrostatic discharge

Although zener diodes are built in the package for anti-static, UV LED chips are particularly sensitive to ESD. Static electricity and surge will cause serious loss of UV LED and lead to complete failure of the product. Therefore, we must pay attention to electrostatic protection when taking or operating the device.

Operation precautions

If you need to wipe the dust particles on the surface of the LED lens, you can use a lint free cotton swab to gently wipe.

Use a lint free cotton swab and alcohol to gently remove the dust on the lens surface. Do not use

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other solvents to prevent damage to the LED.

Do not use any ultrasonic equipment to clean, the LED may be damaged.

Do not use tweezers or fingers to touch the lens; if you want to clamp the LED, use tweezers to clamp it on the ceramic substrate on both sides of the LED.

It is recommended to use rubber suction nozzle to avoid damage to LED.

Do not apply a force greater than 3N to the LED lens.

Circuit management

In order to ensure the normal use of these LED products, it is very important to follow the typical electrical specifications. When using these devices, there is a strong

It is recommended to use drive circuit with current control. Using LEDs above the maximum specified temperature can cause damage or even damage

It can cause complete failure of the device.

Ultraviolet

The product is LED emitting short wavelength. In use, LED emits high intensity ultraviolet light, which can damage skin and eyes.

Ultraviolet light can damage the skin and even cause cancer. It should be avoided in operation.

Pay attention to avoid looking directly at ultraviolet light without UV protective glasses. When the LED is on, it is not allowed to look directly at its lens.

Put the following warning labels on the UV LED products

