

PRODUCT:

6565 SURFACE MOUNT UVC LED

FEATURES:

6.5 mm × 6.5 mm × 3.35 mm surface-mount LED
 30° emission angle
 Lens Appearance: Quartz
 Peak wavelength 270 – 280 nm



DESCRIPTION

- Suitable for all SMT assembly methods
- Compatible with infrared and vapor phase reflow solder process
- Compatible with automatic placement equipment
- Disinfection sterilization
- Ultraviolet detection、communication technology
- Air sterilization, water sterilization
- Medical treatment and skin disease treatment



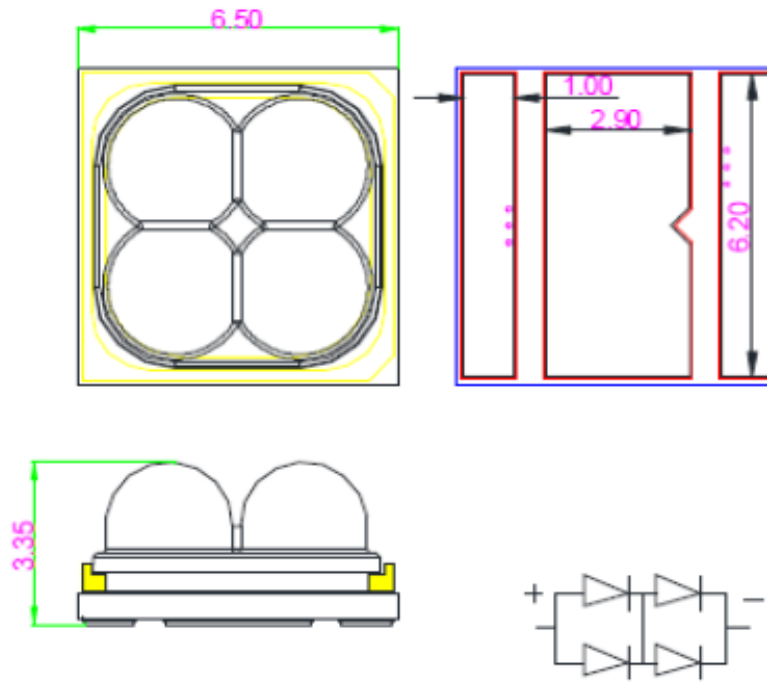
ELECTRICAL-OPTICAL CHARACTERISTICS (T _A = 25 °C)						
PARAMETER	SYMBOL	VALUE			UNIT	CONDITION
		MIN.	TYP.	MAX.		
Forward Voltage	V _f		12		V	I _f =300mA
Radiant Flux	Φ _e	90	100	115	mW	I _f =300mA
Peak wavelength	λ _P		275	280	nm	I _f =300mA
Reverse Current	I _r			10	μA	V _r =20V
Viewing angle	2θ _{1/2}		30		Deg	I _f =300mA

ABSOLUTE MAXIMUM RATING (T _A = 25 °C)			
PARAMETER	SYMBOL	LIMIT	UNIT
Power Dissipation	P _D	4	W
DC Forward Current (pulsed)*	I _{Fp}	300	mA
DC Forward Current	I _F	300	mA
Reverse Voltage	V _R	10	V
Operating Temperature	T _{opr}	-30 ~ +80	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
Soldering Temperature	T _{sol}	260 for 5 sec**	°C

* Duty 1/10, Pulse Width 0.1ms.

**Soldering time max 10 sec

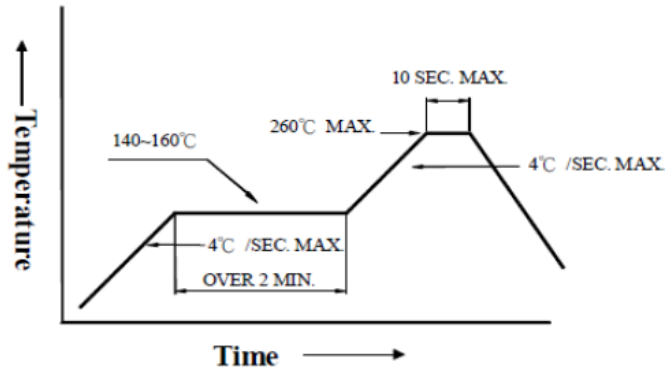
PACKAGE LAYOUT



All dimensions are in millimeters.
Tolerance is $\pm 0.10\text{mm}$ unless otherwise specified.

REFLOW PROFILE

SOLDERING RAMP-UP TIME (Pb-FREE)



1. Manual Soldering

The temperature of the iron tip should not be higher than 350°C and Soldering time to be within 3 seconds per solder-pad.

2. Reflow Soldering

Preheating: 140°C ~160°C±5°C within 2 minutes

Operation heating: 260°C (Max.) within 10 seconds(Max)

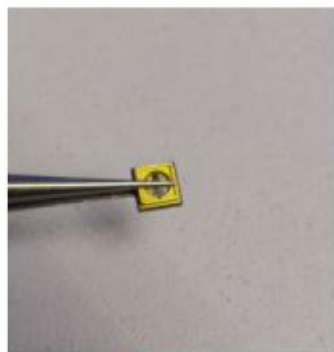
Gradual Cooling(Avoid quenching)

INSTRUCTIONS FOR SMT
Problems caused by improper selection of collet

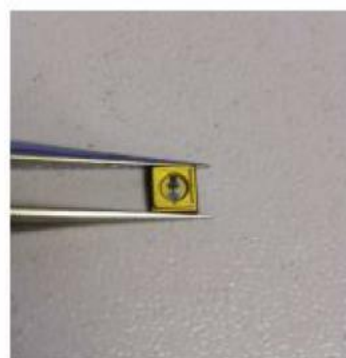
Choosing the right collet is important in ensuring product quality after SMT. LEDs are different from other electronic components, as they are not only concerned with electrical output but also optical output. This characteristic makes LEDs more fragile in the process of SMT. If the collet's lowering height is not well set, it will bring damage to the gold wire at the time of collet's pick-and-place process which can cause the LED to not illuminate, flicker or contribute to other quality problems, some of which may not be immediately detectable.

Collet selection

During SMT, do not press the silica gel surface with any sharp object (e.g. tweezers). Do not leave finger marks on the silicone surface. The normal pressure on the front of the silicone body should be less than 2 newtons, and the press times should be less than 3 times. The pressure on the side of the silicone body is less than 1.5 newtons, and the press times are less than 3 times. Pick up materials correctly (as shown below)



NG



OK

Setting the height of the collet is crucial in order to avoid damage to the top view SMD. If the collet setting is set to too low of an altitude, the collet will press down on the SMD, causing damage or breakage to the encapsulant and cause distortion or breakage of the gold wire.

Other notes of caution:

- No pressure should be exerted to the epoxy shell of the SMD under high temperature.
- Do not scratch or wipe the lens since the lens and gold wire inside are rather fragile and cross out easy to break.
- LED should be used as soon as possible when being taken out of the original package, and should be stored in anti-moisture and anti-ESD package.
- This usage and handling instructions are for reference only.
- **When the UV led is lighting, users must not look straight at the UV leds, or, the UV light will damage your eyes permanently; When it lighting a long time , human or other animals must keep away from it, only if they put on the UV protective clothing(include your eyes) .**