

# EDILUV 3535 275nm 1.0W

## UAIC0104F3C0C097

### Datasheet



#### Features:

- Ultraviolet Lighting, Typ. 275nm
- Compact Package Size: 3.45×3.45×1.63mm
- Radiant Power , Typ. 12mW
- High Thermal Dissipation
- High Reliability with 1,000hr test

#### Typical Applications:

- Disinfection
- Sterilization
- Special Recognition

### Optical and Electrical Characteristics ( at room temperature, $T_a=25^{\circ}\text{C}$ )

Parameter	Symbol	Operating Condition	Value			Units
			Min.	Typ.	Max.	
Radiant power	$P_o$	$I_F=100\text{mA}$	8	12	15	mW
Forward voltage	$V_F$	$I_F=100\text{mA}$	5	6	8	V
Peak wavelength	$\lambda_p$	$I_F=100\text{mA}$	260	270	285	nm
Spectral width (FWHM)		$I_F=100\text{mA}$		15	20	nm
Viewing Angle	$2\theta_{1/2}$			120		degree

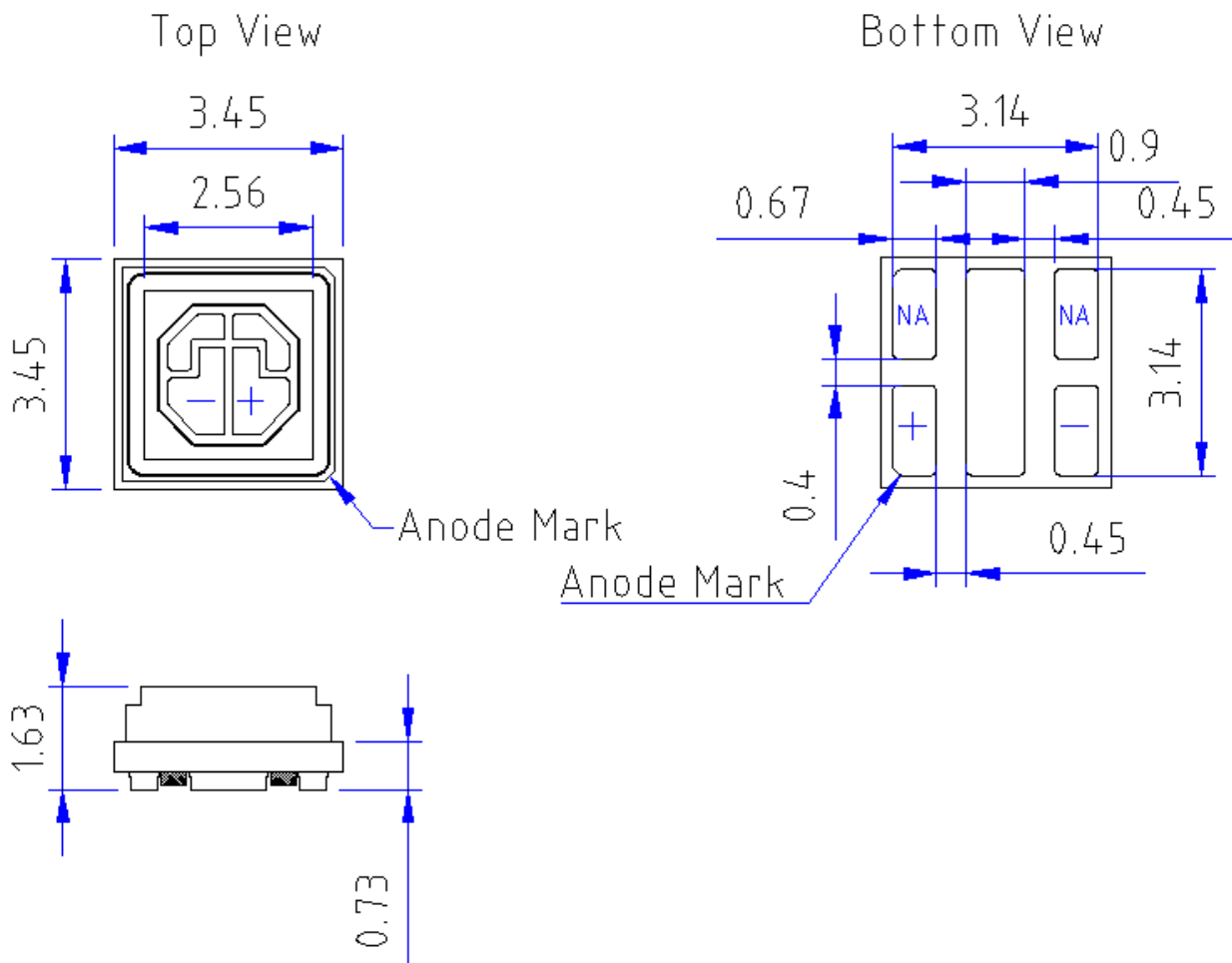
Notes:

1. Forward voltage tolerance is  $\pm 0.1\text{ V}$
2. Optical output power tolerance is  $\pm 10\%$ .
3. The pulse operation was tested on good thermal management with  $2.25\text{ cm}^2$  MCPCB.

### Absolute Maximum Rating

Parameter	Symbol	Operating Condition	Value			Units
			Min.	Typ.	Max.	
Power Dissipation	$P_D$	$25^{\circ}\text{C}$		0.6		W
DC Forward Current	$I_F$	$25^{\circ}\text{C}$			100	mA
Operating Temperature	$T_{OPR}$		-40		60	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$		-40		100	$^{\circ}\text{C}$

## Mechanical Dimensions

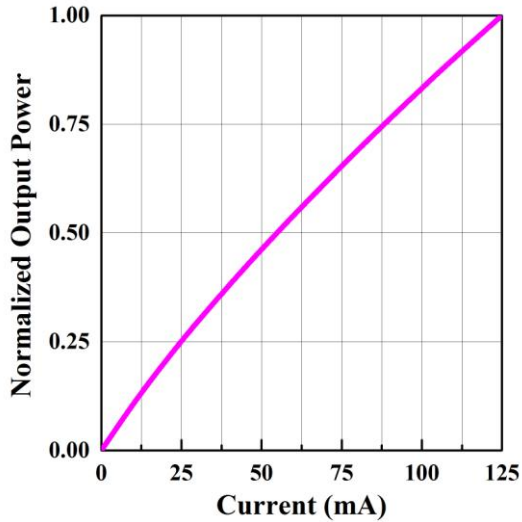


Unit: mm

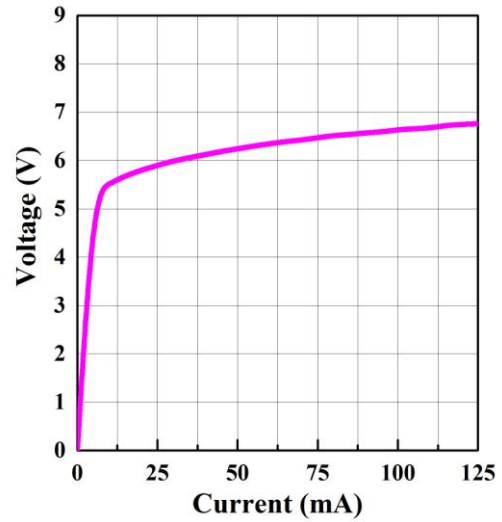
Tolerance:  $\pm 0.20\text{mm}$

## Figures

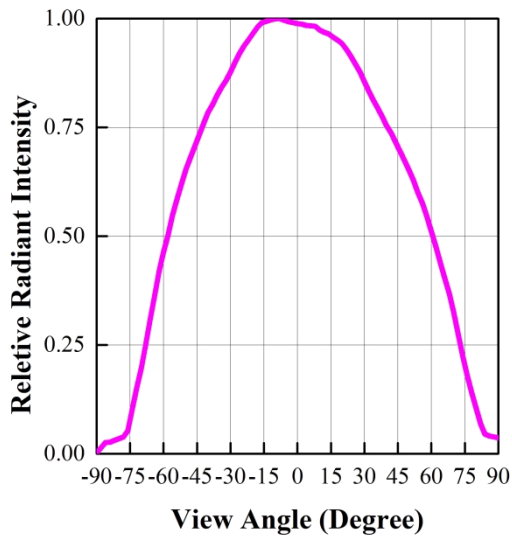
■ **Output Power vs. Current**



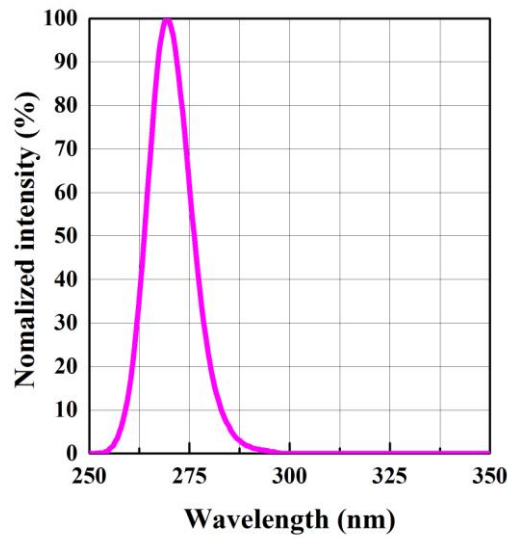
■ **Voltage vs. Current**



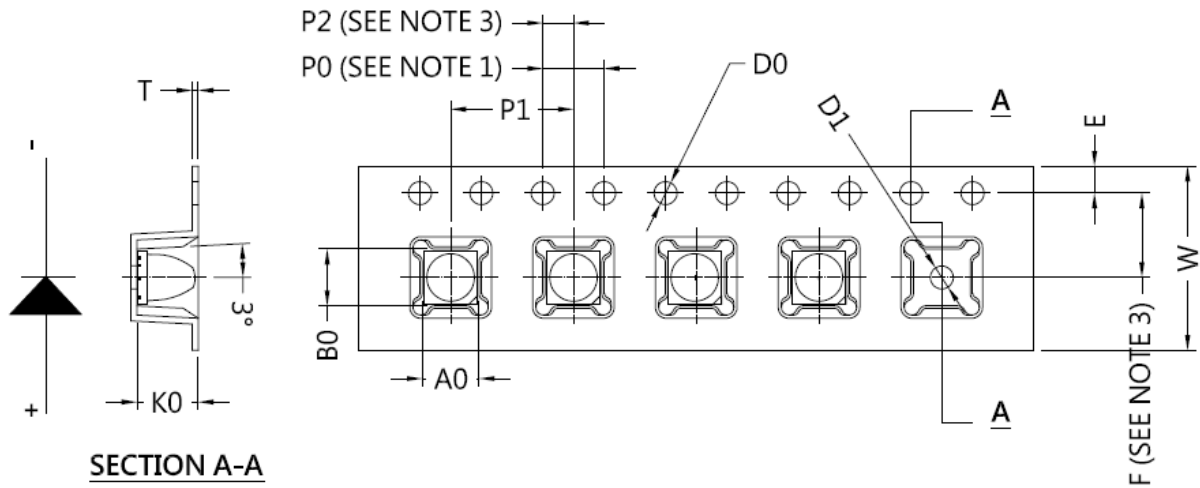
■ **Emitting Angle**



■ **Emission Spectrum**



## Product Packaging Information



Unit: mm

symbol	Ao	Bo	Ko	Po	P1	P2
spec	3.75±0.10	3.75±0.10	2.10±0.10	4.00±0.1	8.00±0.10	2.00±0.05
symbol	E	F	Do	D1	W	T
spec	1.75±0.10	5.50±0.10	1.50±0.10	1.50±0.1	12.0±0.20	0.25±0.05

Note:

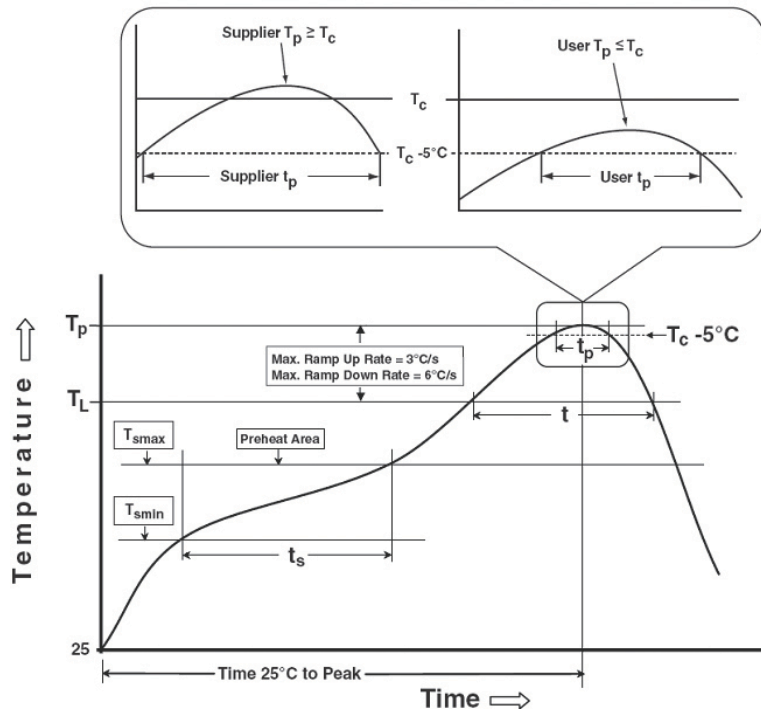
1. 10 sprocket hole pitch cumulative tolerance  $\pm 0.2$
2. Camber in compliance with EIA 481
3. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

Item	Quantity	Total	Dimensions(mm)
Reel	(Max) 1000 pcs	(Max) 1000 pcs	R-176
Carton	(Max) 20 Reels	(Max) 20000 pcs	330×220×290mm

Starting with 100pcs empty and 100pcs empty at the last.

## Reflow Profile

The following reflow profile is from IPC/JEDEC J-STD-020D which provided here for reference.



Profile Feature	Pb-Free Assembly
Preheat & Soak	150 °C
Temperature min (Tsmmin) Temperature max (Tsmmax) Time (Tsmmin to Tsmmax) (ts)	200 °C 60-120 seconds
Average ramp-up rate (Tsmmax to Tp)	3 °C/second max.
Liquidous temperature (TL)	217 °C
Time at liquidous (tL)	60-150 seconds
Peak package body temperature (Tp)	255 °C ~260 °C
Classification temperature (Tc)	260 °C
Average ramp-down rate (Tp to Tsmmax)	6°C/second max.
Time 25 °C to peak temperature	8 minutes max.

※Notice: Do not use hot plate to mount the package at the peak temperature (Tp) of 260°C over 5 seconds.

## Caution

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According to the international standard IEC/EN 62471 “Photo biological Safety of Lamps and Lamp Systems”, there are various biological hazards that are considered within different wavelength ranges. As the light in the ultraviolet (UV) region 200-400nm, the biological effects were on both the eyes and skin.

The UV light from an LED while in operation is intense and harmful. If human eyes and skin are exposed to this light, it may cause damage to them. So, do not look directly or indirectly (e.g. through an optic device) at the UV light and prevent the eyes from being exposed to the UVC light.