### **UV LED LAMP**

#### VAOL-3EUV8Y4

#### **Feature**

- Low Power Consumption
- I.C. compatible

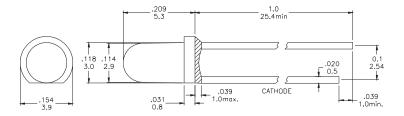
## **Applications**

- Disinfection and Sterilization
- Adhesive Curing
- Leak Detection
- Authentication

## **Description**

- These LEDs are Based on InGaN Material Technology
- Emitted color: Purple (UV)
- Water Transparent Lens

## Package Dimension



\* Tolerance:  $\pm$ Unit :  $\pm$ 

#### ↑ CAUTION : EMITS ULTRAVIOLET RADIATION!!!



- This UV (ultraviolet) LED during operation radiates intense UV light.
- Do Not look directly into the UV light during operation of device. This can be harmful to the hu
- to the eyes and skin, even for brief period due to the intense UV light. • If viewing the UV light is necessary, please use UV filtered glasses to avoid damage by the UV light
- If the UV LED in your product might be viewed directly, please affix a caution label to your product to that effect
- Keep reach out of children

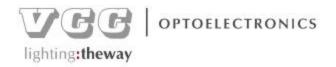
## Absolute Maximum Ratings at Ta=25°C

Symbol	Parameter	Max.	Unit			
PD	Power Dissipation	120	mW			
VR	Reverse Voltage	5	V			
IAF	Average Forward Current	30	mA			
IPF	Peak Forward Current (Duty=0.1, 1kHz)	100	mA			
_	Derating Linear Form 25°C	0.4	mA/°C			
Topr	Operating Temperature Range	-20  to + 80	°C			
Tstg	Storage Temperature Range	-20  to + 100	°C			
Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds.						

# Electrical / Optical Characteristics and Curves at Ta=25°C

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Unit
VF	Forward Voltage	IF= 20 mA	2.8	3.0	3.6	V
IR	Reverse Current	VR = 5 V			100	μΑ
Δθ	Half Intensity Angle	IF= 20 mA		15		Deg.
IV	Luminous Intensity	IF = 20  mA		72		mcd.
λp	Peak Wavelength	IF= 20 mA	380	385		nm





### Electrical Characteristics at Ta=25°C

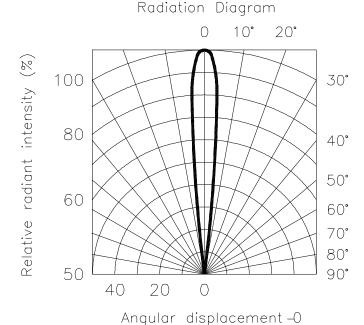
Symbol		Iv		VF		λp	
Parameter	Luminous Intensity		Forward Voltage		Peak Wavelength		
Condition	IF=20mA		IF=20mA		IF=20mA		
Unit	mcd			V		nm	
	Grade	Range	Grade	Range	Grade	Range	
	BIN7	45~65	P0	2.8~3.0	U2	380~385	
	BIN8	65~90	P1	3.0~3.2	U3	385~390	
Binning			P2	3.2~3.4			
			Р3	3.4~3.6			

Intensity: Tolerance of minimum and maximum =  $\pm$  15% Vf: Tolerance of minimum and maximum =  $\pm$  0.05v

NOTE:

## **Radiation Diagram**

## IF=20 mA 50% Power Angle Angle =15°







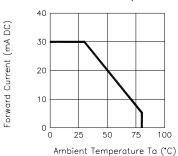
<sup>1.</sup> Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.



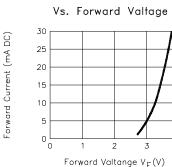
#### UV

Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)

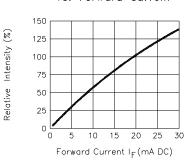
Forward Current Vs. Ambient Temmperature



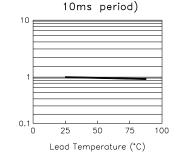
Forward Current



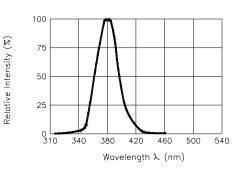
Relative Intensity Vs. Forward Current



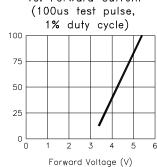
Relative Intensity Vs. Lead Temperarture (Pulsed 20 mA; 300us pulse,



Relative Intensity Vs. Wavelength



Peak Forward Voltage Vs. Forward Current (100us test pulse,





Relative Intensity

