VCC | OPTOELECTRONICS
lighting:theway

UV LED LAMP

VAOL-3GUV0Y4

Feature

- Low Power Consumption
- I.C. compatible

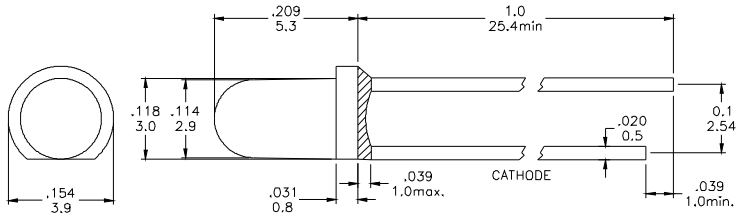
Applications

- 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：± 0.01/0.25　　Unit：± inch/mm

Absolute Maximum Ratings at Ta＝25℃

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℃	0.4	mA/℃
Topr	Operating Temperature Range	−20 to ＋80	℃
Tstg	Storage Temperature Range	−20 to ＋100	℃
Lead Soldering Temperature [1.6mm（0.063inch）From Body] 260℃ For 5 Seconds.			

Electrical / Optical Characteristics and Curves at Ta＝25℃

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
VF	Forward Voltage	IF＝ 20 mA	2.8	3.0	3.6	V
IR	Reverse Current	VR＝ 5 V			100	μA
△θ	Half Intensity Angle	IF＝ 20 mA	--	30	--	Deg.
IV	Luminous Intensity	IF＝ 20 mA	--	120	--	mcd.
λp	Peak Wavelength	IF＝ 20 mA	400	405	--	nm

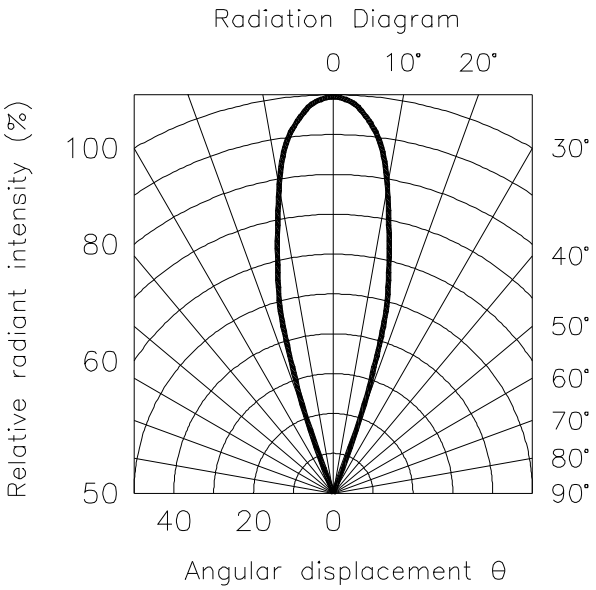
Electrical Characteristics at Ta＝25℃

Symbol	Iv		V_F		λ p	
Parameter	Luminous Intensity		Forward Voltage		Peak Wavelength	
Condition	IF＝20mA		IF＝20mA		IF＝20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN 9	90~125	P0	2.8~3.0	U6	400~405
	BIN 10	125~175	P1	3.0~3.2	U7	405~410
			P2	3.2~3.4		
			P3	3.4~3.6		

Intensity: Tolerance of minimum and maximum = ± 15%
Vf: Tolerance of minimum and maximum = ± 0.05v
NOTE:
1. 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.

Radiation Diagram

IF=20 mA 50% Power Angle Angle =30°

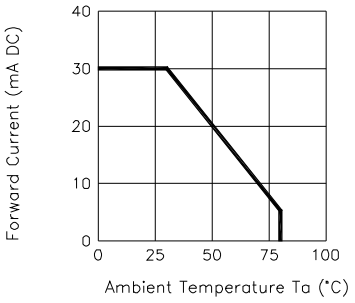


UV

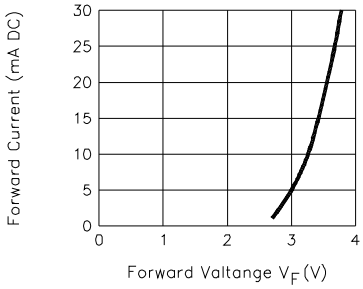
Typical Electro-optical Characteristic Curves

(25°C Free Air Temperature Unless Otherwise Specified)

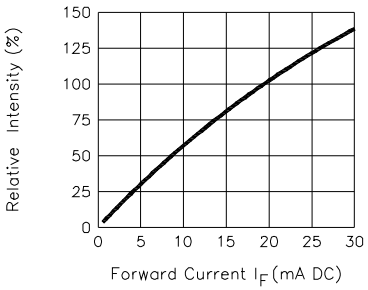
Forward Current
Vs. Ambient Temmperature



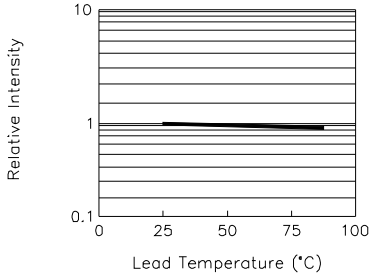
Forward Current
Vs. Forward Valtage



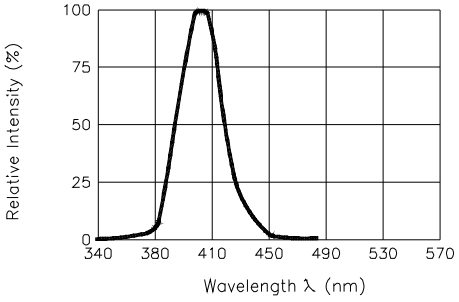
Relative Intensity
Vs. Forward Current



Relative Intensity
Vs. Lead Temperarture
(Pulsed 20 mA; 300us pulse,
10ms period)



Relative Intensity Vs. Wavelength



Peak Forward Voltage
Vs. Forward Current
(100us test pulse,
1% duty cycle)