VCC | OPTOELECTRONICS
lighting:theway

UV LED LAMP

VAOL-3GUV0Y4

Feature

- ← Low Power Consumption
- ← I.C. compatible

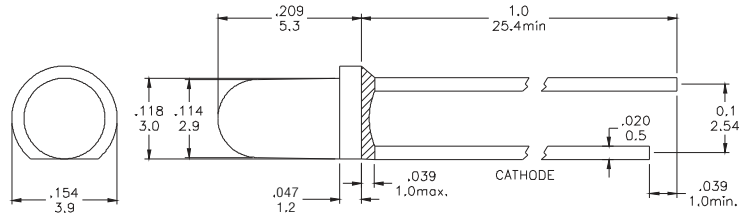
Applications

- ← 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

⚠ 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 human body especially 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.
- Avoid direct eye and skin exposure to the UV light.
- 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.	Typ.	Max.	Unit
VF	Forward Voltage	IF＝ 20 mA	2.8	3.0	3.6	V
IR	Reverse Current	VR＝ 5 V			100	μ A
Δ θ	Half Intensity Angle	IF＝ 20 mA		30	--	Deg.
IV	Luminous Intensity	IF＝ 20 mA	--	120	--	mcd.
λ p	Peak Wavelength	IF＝ 20 mA	400	405	--	nm

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RoHS
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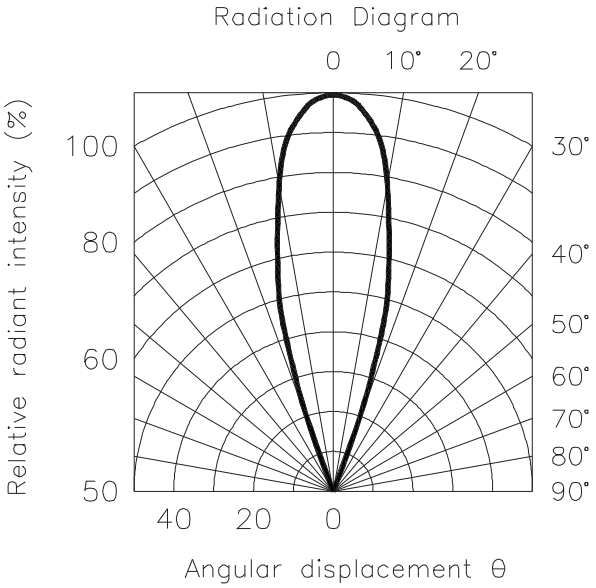
Electrical Characteristics at Ta＝25℃

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°

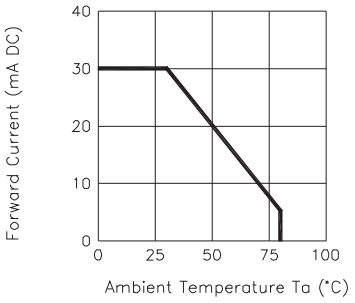


UV

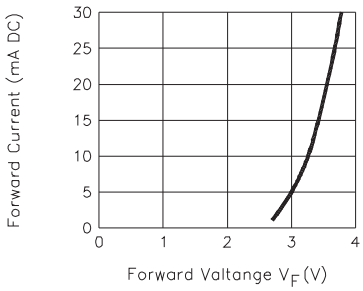
Typical Electro-optical Characteristic Curves

(25°C Free Air Temperature Unless Otherwise Specified)

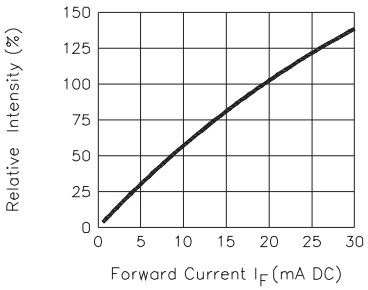
Forward Current
Vs. Ambient Temmperature



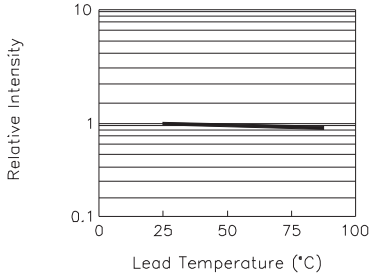
Forward Current
Vs. Forward Valtage



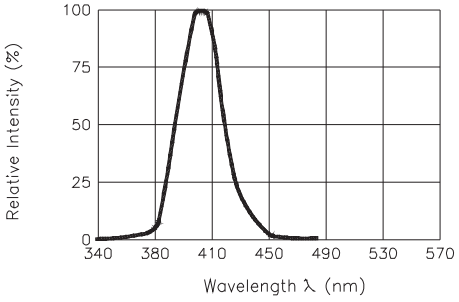
Relative Intensity
Vs. Forward Current



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)