

# VAOL-3GWY4

## 3mm (T-1) Thru-hole LED

### Superbright LED Lamp



VAOL3 Series consists of T-1 (3mm) thru-hole LEDs with high intensity light output

#### Application

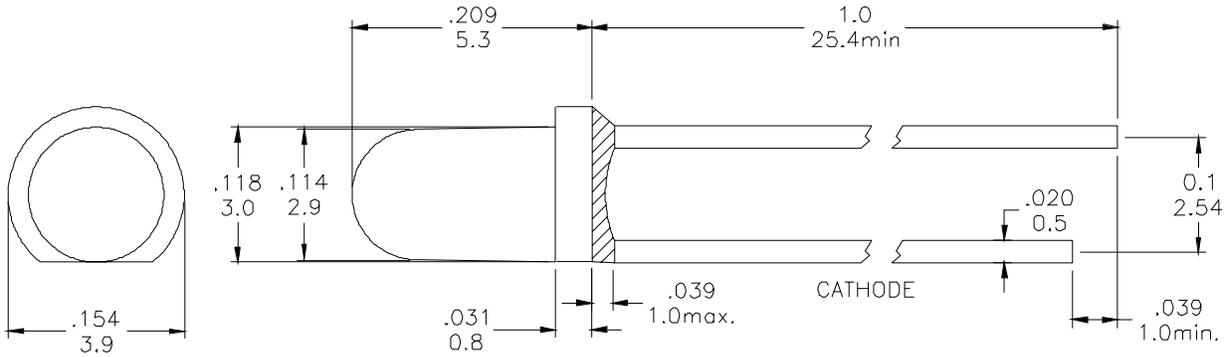
- Commercial Outdoor Sign Board
- LED Bulb
- Front Panel Indicator
- Electrical Panels
- Dot-Matrix Module
- Appliances

#### Key Features

- Low power consumption
- High intensity LEDs are based on InGaN/sapphire material technology
- Emitted color: white
- Water transparent lens
- Available with clear and diffused lens, flanged and flangeless, multiple viewing angles
- Conflict mineral free
- Typical lifetime hours for LEDs is 50,000 hours
- Compliant with RoHS and REACH requirements

## Package Dimension

All dimensions in inches/mm



\*Tolerance:  $\frac{0.01}{0.25}$

## Product Specifications

### 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	-40 to +80	°C
Tstg	Storage Temperature Range	-40 to +100	°C

Lead Soldering Temperature [1.6mm ( 0.063inch) From Body] 260°C For 5 Seconds.

## Product Specifications

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

Symbol	Parameter	Test Condition	Min	Typ.	Max	Unit
VF	Forward Voltage	IF=20mA		3.5	4.0	V
IR	Reverse Current	VR=5V			50	μA
Δθ	Half Intensity Angle	IF= 20mA		30		Deg
IV	Luminous Intensity	IF= 20mA		3500		mcd.
X	Chromaticity	IF= 20mA		0.24		
Y	Coordination	IF= 20mA		0.25		

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

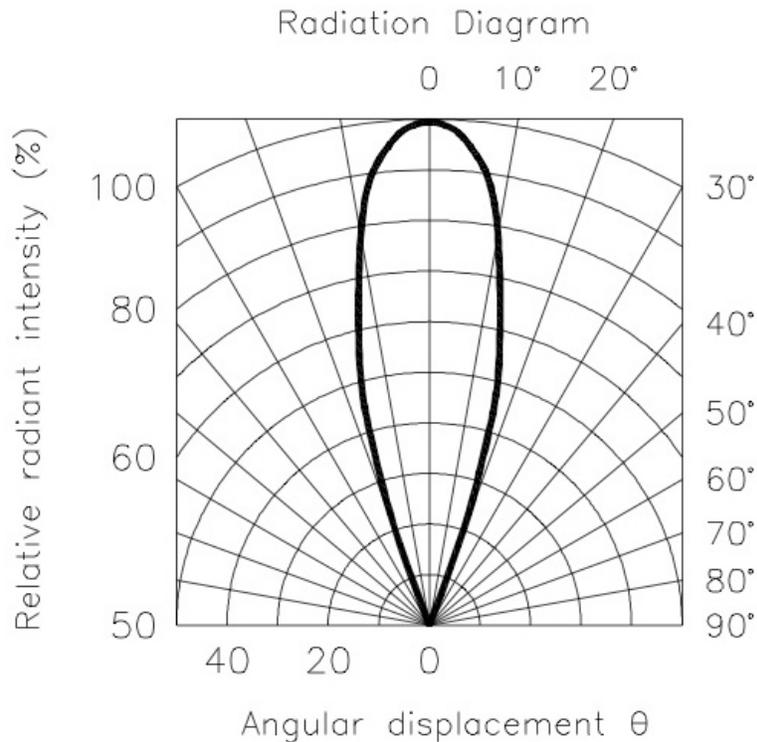
Vf: Tolerance of minimum and maximum =  $\pm 0.05v$

#### 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.
2. Specific binning requirements- please contact our home office

### Radiation Diagram

IF=20 mA    50% Power Angle    Angle =30°



## Product Specifications

### Electrical Characteristics at (Ta=25°C)

Symbol	I <sub>v</sub>		V <sub>F</sub>		λ <sub>D</sub>	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN18	1800~2500	P1	3.0~3.2	WA	Bluish White
	BIN19	2500~3500	P2	3.2~3.4	WB	Pure White
	BIN20	3500~4500	P3	3.4~3.6	WC	White
			P4	3.6~3.8	WD	Yellowish White
			P5	3.8~4.0		

Intensity: Tolerance of minimum and maximum = ± 15%

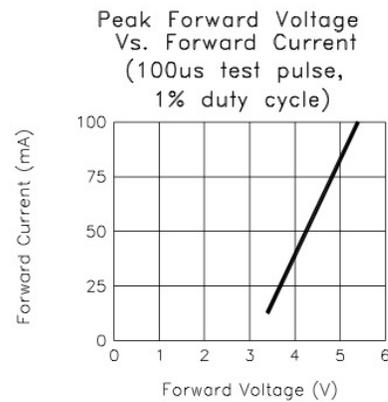
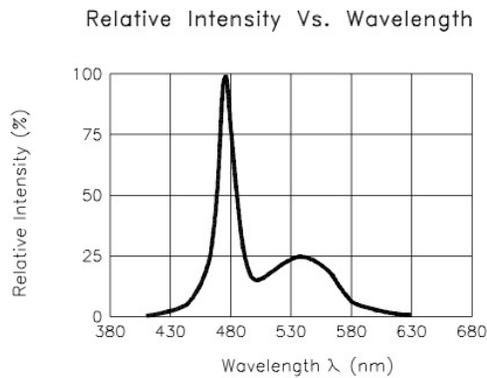
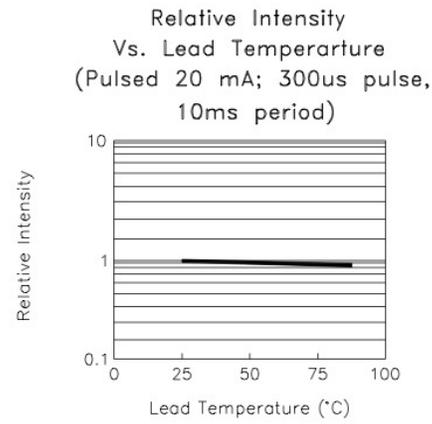
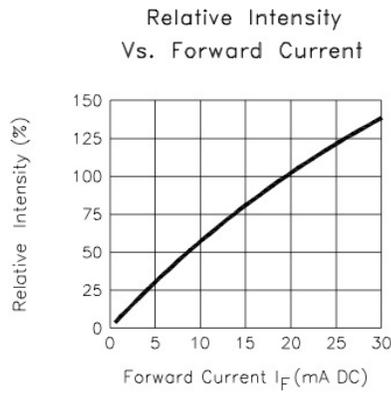
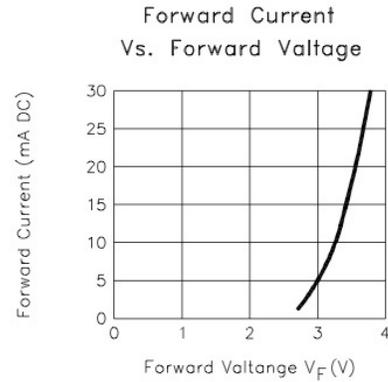
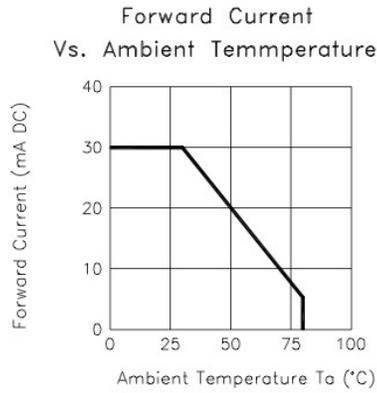
V<sub>f</sub>: Tolerance of minimum and maximum = ± 0.05v

**Note:**

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2. Specific binning requirements- please contact VCC

## Product Specifications

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



## Compliances and Approvals

