

#### SUPERBRIGHT LED LAMP

## VAOL-3MSBY2

#### **Feature**

- Low Power Consumption
- High Intensity
- I.C. compatible

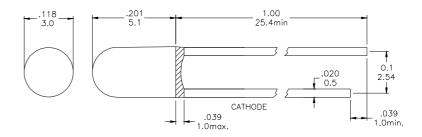
## **Applications**

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

## **Description**

- These High Intensity LEDs are Based on InGaN/Sapphire Material Technology
- Emitted color:Blue
- Blue Diffusion Lens

## **Package Dimension**



\* Tolerance:  $\frac{0.01}{0.25}$  Unit:  $\frac{\text{inch}}{\text{mm}}$ 

## 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°C	0.4	mA / °℃			
Topr	Operating Temperature Range	-40 to + 80	$^{\circ}$ C			
Tstg	Storage Temperature Range	-40 to + 100	$^{\circ}\mathbb{C}$			
Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds.						

## Electrical / Optical Characteristics and Curves at Ta=25℃

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Unit
VF	Forward Voltage	IF= 20 mA		3.5	4.0	V
IR	Reverse Current	VR = 5 V			50	$\mu$ A
$\triangle \theta$	Half Intensity Angle	IF= 20 mA		60		Deg.
IV	Luminous Intensity	IF= 20 mA		1200		mcd.
λd	Dominant Wavelength	IF = 20  mA		470		nm







## Electrical Characteristics at Ta=25°C

Symbol	Iv		VF		λD	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit		mcd V		V	nm	
	Grade	Range	Grade	Range	Grade	Range
	BIN16	950~1300	P1	3.0~3.2	В5	460~465
			P2	3.2~3.4	В6	465~470
Binning			Р3	3.4~3.6	В7	470~475
			P4	3.6~3.8		
			P5	3.8~4.0		

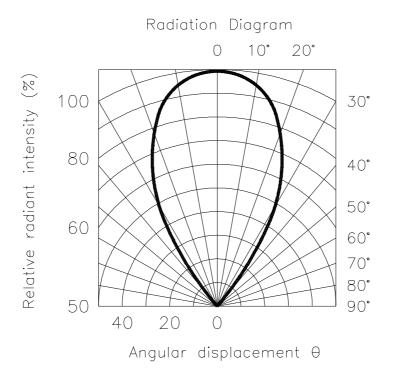
Intensity: Tolerance of minimum and maximum =  $\pm 15\%$ Vf: Tolerance of minimum and maximum =  $\pm 0.05v$ 

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 = $60^{\circ}$ 

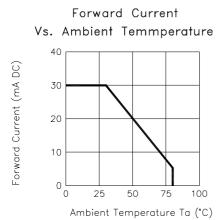


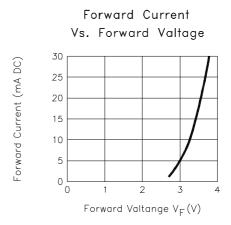


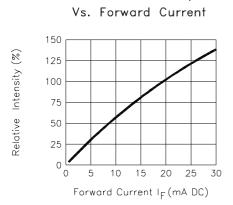


## **BLUE**

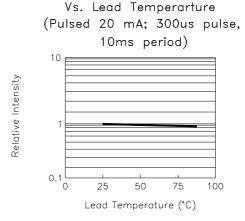
# Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)



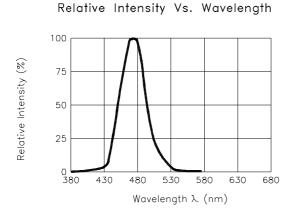


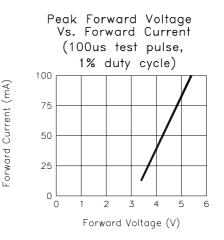


Relative Intensity



Relative Intensity







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VCC:

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