## SUPERBRIGHT LED LAMP

#### **VAOL-5LSBY2**

#### **Feature**

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

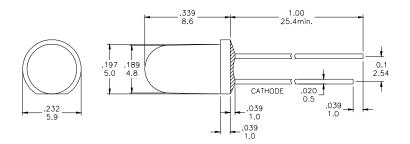
## **Applications**

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

### **Description**

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

## **Package Dimension**



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

## Absolute Maximum Ratings at Ta=25℃

Symbol	Parameter	Max.	Unit			
PD	Power Dissipation	100	mW			
VR	Reverse Voltage	5	V			
IAF	Average Forward Current	20	mA			
IPF	Peak Forward Current (Duty=0.1, 1kHz)	85	mA			
_	Derating Linear Form 25°C	0.4	mA/°C			
Topr	Operating Temperature Range	-40 to +80	$^{\circ}\!\mathbb{C}$			
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 $Ta=25^{\circ}C$

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			100	$\mu$ A
$\triangle \theta$	Half Intensity Angle	IF= 20 mA		60		Deg.
IV	Luminous Intensity	IF= 20 mA		1500		mcd.
λd	Dominant Wavelength	IF= 20 mA		470		nm





## Electrical Characteristics at Ta=25°C

Symbol	Symbol Iv		VF		λD	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit		mcd	V		nm	
	Grade	Range	Grade	Range	Grade	Range
	BIN 16	950~1300	P1	3.0~3.2	В5	460~465
	BIN 17	1300~1800	P2	3.2~3.4	В6	465~470
			P3	3.4~3.6	В7	470~475
			P4	3.6~3.8		
		·	P5	3.8~4.0		

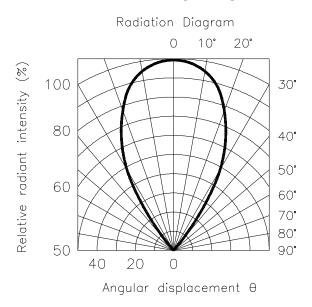
Intensity: Tolerance of minimum and maximum =  $\pm 15\%$ Vf: Tolerance of minimum and maximum =  $\pm 0.05$ v

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 = $60^{\circ}$







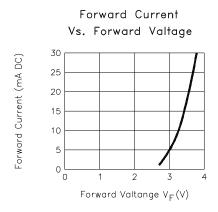
## **BLUE**

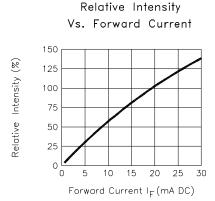
# Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)

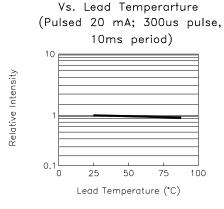
Forward Current
Vs. Ambient Temmperature

40
30
20
10
0 25 50 75 100

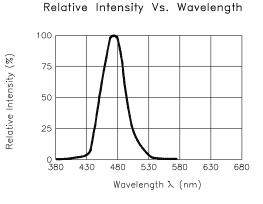
Ambient Temperature Ta (\*C)

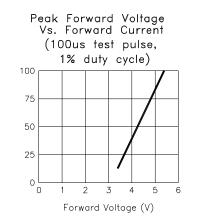






Relative Intensity





Forward Current (mA)



# **Mouser Electronics**

**Authorized Distributor** 

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 $\frac{\text{VCC}:}{\text{VAOL-5LSBY2}}$