Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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VCC | OPTOELECTRONICS
lighting:theway

SUPERBRIGHT LED LAMP

VAOL-5GSBY4

Feature

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

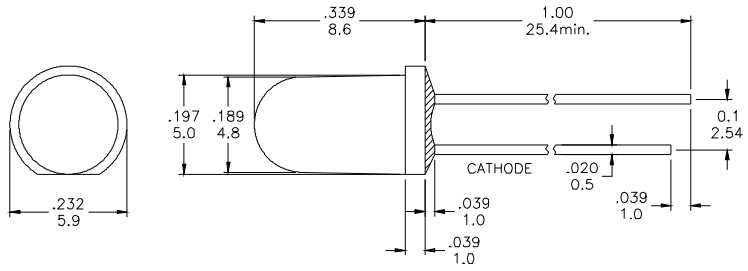
Applications

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

Description

§ These High Intensity LEDs are Based on InGaN/(ITO)Sapphire Material Technology
§ Emitted color:Blue
§ 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	20	mA
IPF	Peak Forward Current（Duty＝0.1，1kHz）	85	mA
—	Derating Linear Form 25℃	0.4	mA/℃
Topr	Operating Temperature Range	-40 to + 80	℃
Tstg	Storage Temperature Range	-40 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		3.5	4.0	V
IR	Reverse Current	VR＝ 5 V			50	μA
△θ	Half Intensity Angle	IF＝ 20 mA		30		Deg.
IV	Luminous Intensity	IF＝ 20 mA		7000		mcd.
λd	Dominant Wavelength	IF＝ 20 mA		470		nm

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Electrical Characteristics at Ta＝25℃

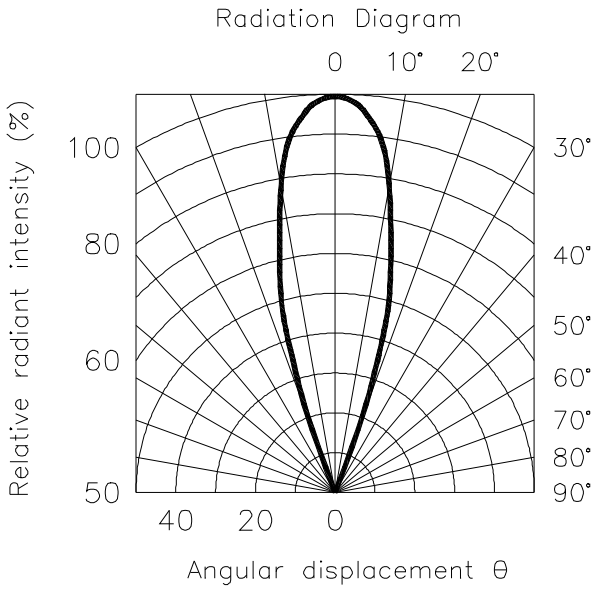
Symbol	Iv		V_F		λ D	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF＝20mA		IF＝20mA		IF＝20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN 21	4900~6900	P1	3.0~3.2	B6	465~470
	BIN 22	6900~9700	P2	3.2~3.4	B7	470~475
			P3	3.4~3.6		
			P4	3.6~3.8		
			P5	3.8~4.0		

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.
2. Specific binning requirements –please contact our home office

Radiation Diagram

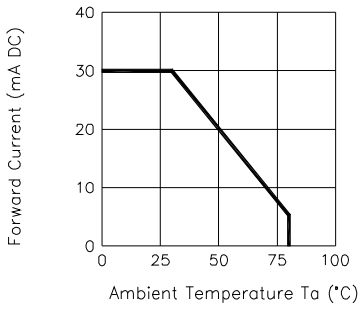
IF=20 mA 50% Power Angle Angle =30°



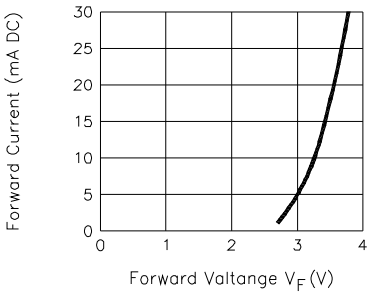
BLUE

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

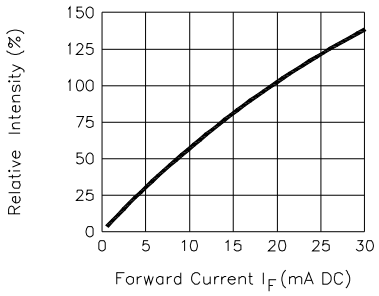
Forward Current
Vs. Ambient Temmperature



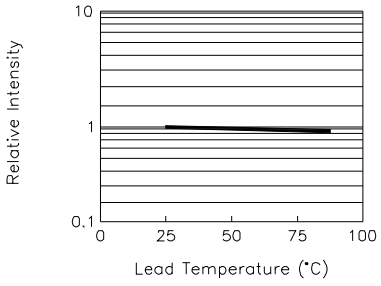
Forward Current
Vs. Forward Valtage



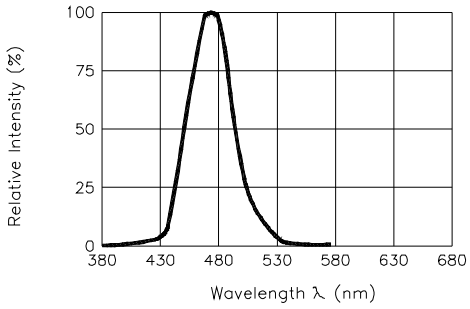
Relative Intensity
Vs. Forward Current



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)