APEX OPTO CORP

SUPERBRIGHT LED LAMP

AOL-5GGCS4

Feature

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

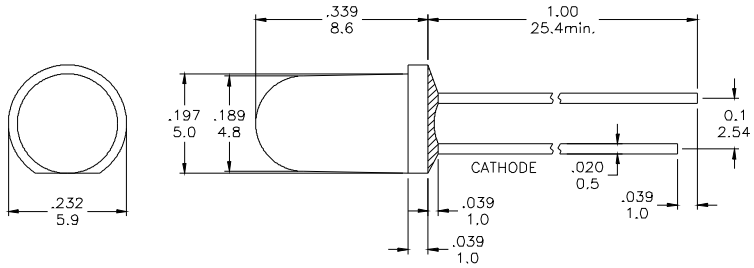
Applications

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

Description

- § These High Intensity LEDs are Based on InGaN/Sapphire Material Technology
- § 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		6800		mcd.
λd	Peak Wavelength	IF＝　20　mA		505		nm

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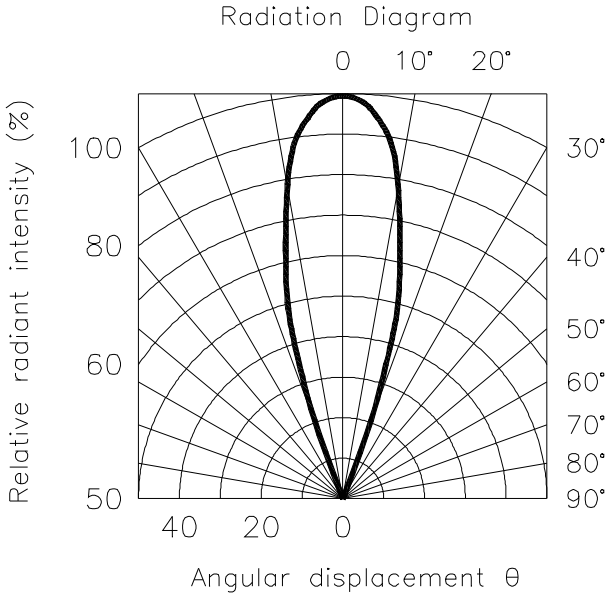
Electrical Characteristics at Ta＝25℃

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	G15	500~505
	BIN 22	6900~9700	P2	3.2~3.4	G16	505~510
			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.

Radiation Diagram

IF=20 mA 50% Power Angle Angle =30°



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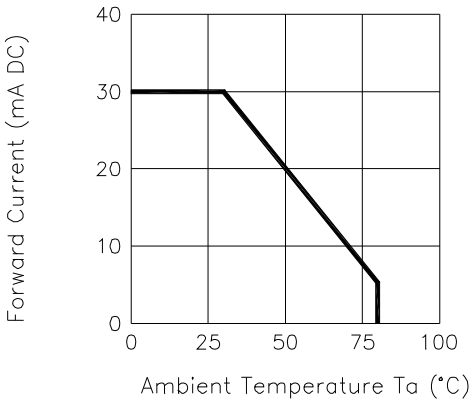
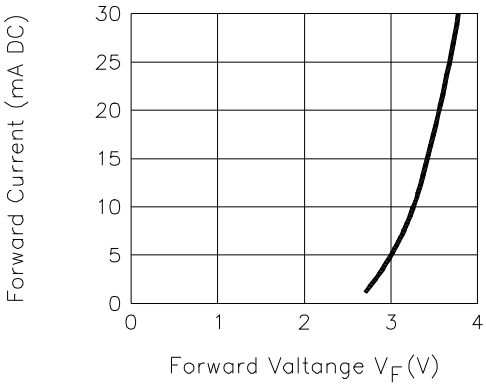
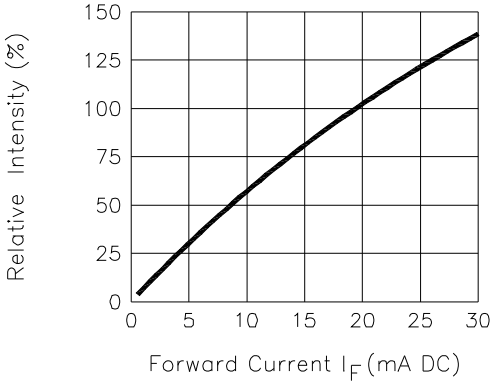
Forward Current
Vs. Ambient Temmperature



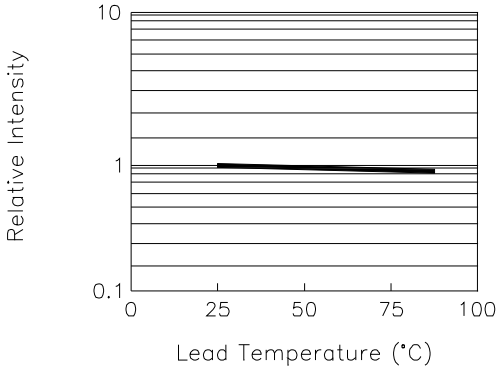
Forward Current
Vs. Forward Valtage



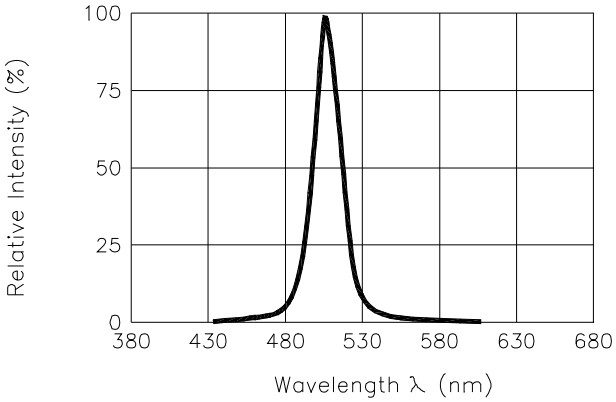
Relative Intensity
Vs. Forward Current



Relative Intensity
Vs. Lead Temperarture
(Pulsed 20 mA; 300us pulse,
10ms period)



Relative Intensity Vs. Wavelength



Peark Forward Voltage
Vs. Forward Currend
(100us test pulse,
1% duty cycle)