VCC OPTOELECTRONICS
lighting:theway

SUPERBRIGHT LED LAMP

VAOL-3GRE4

Feature

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

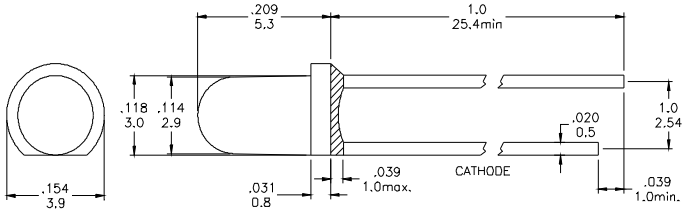
Applications

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

Description

- § These LEDs are Based on AlInGaP/GaAsMaterial Technology
- § Emitted Color: RED
- § 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	30	mA
IPF	Peak Forward Current（Duty＝0.1，1kHz）	100	mA
—	Derating Linear Form 25℃	0.4	mA/℃
Topr	Operating Temperature Range	−40 to ＋85	℃
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		2.1	2.4	V
IR	Reverse Current	VR＝ 5 V			100	μA
△θ	Half Intensity Angle	IF＝ 20 mA		30		Deg.
IV	Luminous Intensity	IF＝ 20 mA		2000		mcd.
λd	Peak Wavelength	IF＝ 20 mA		625		nm

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RoHS
ISO 9001 Registered

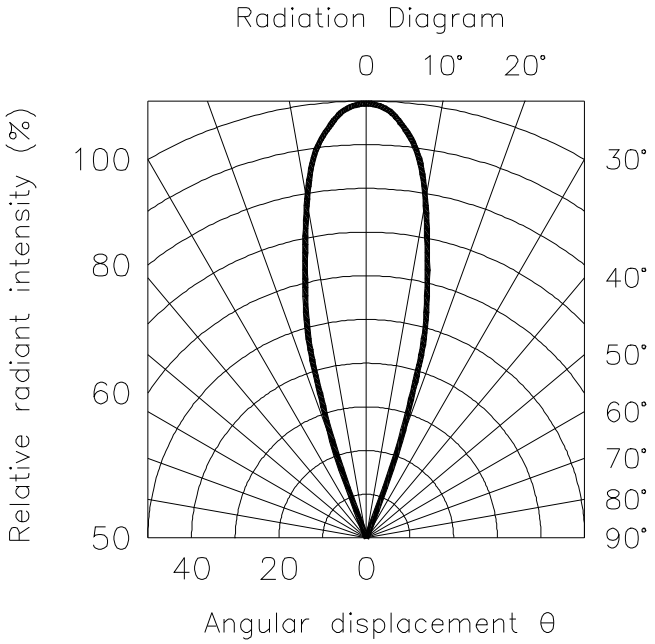
Electrical Characteristics at Ta＝25℃

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 17	1300~1800	C	1.9~2.0	O2	620~625
	BIN 18	1800~2500	D	2.0~2.1	O3	625~630
			E	2.1~2.2		
			F	2.2~2.3		
			G	2.3~2.4		

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˚



RED

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

Fig 1. Forward Current vs. Forward Voltage

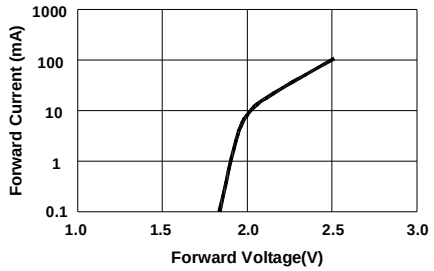


Fig 2. Relative Intensity vs. Forward Current

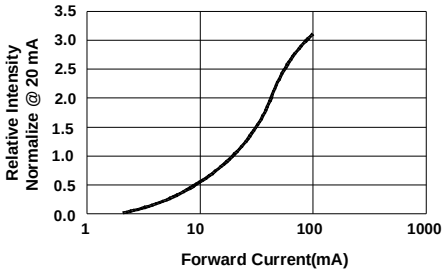


Fig 3. Forward Voltage vs. Temperature

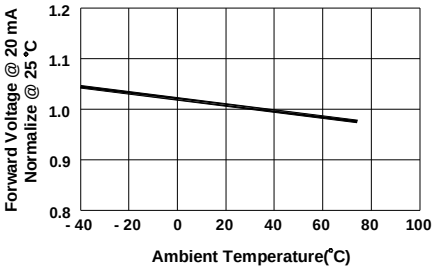


Fig 4. Relative Intensity vs. Temperature

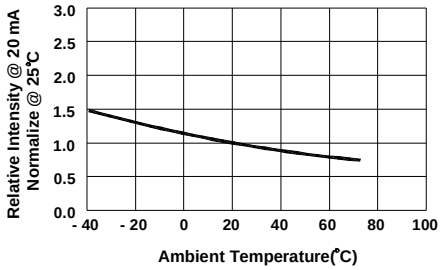


Fig 5. Relative Intensity vs. Wavelength

