VCC | OPTOELECTRONICS
lighting:theway

LED LAMP

VAOL-10GAT4

Feature

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

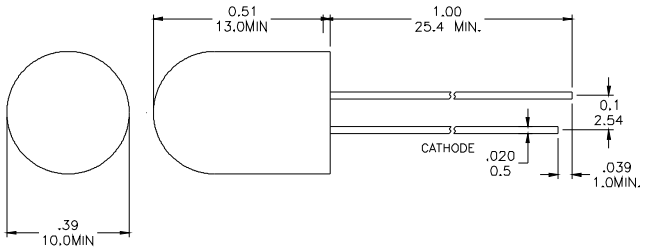
Applications

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

Description

- § These High Intensity LEDs are Based on AlGaAs/GaAs Material 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	100	mW
VR	Reverse Voltage	5	V
IAF	Average Forward Current	25	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		1.8	2.1	V
IR	Reverse Current	VR＝ 5 V			100	μA
△θ	Half Intensity Angle	IF＝ 20 mA		30		Deg.
IV	Luminous Intensity	IF＝ 20 mA		480		mcd.
λp	Peak Wavelength	IF＝ 20 mA		655		nm
λd	Dominant Wavelength	IF＝ 20 mA		640		nm

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Electrical Characteristics at Ta＝25℃

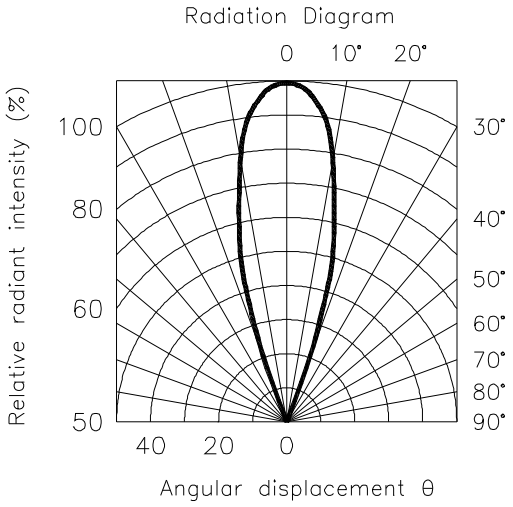
Symbol	Iv		V_F		λ D	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF＝20mA		IF＝20mA		IF＝20mA	
Unit	mcd		V		nm	
Binning	Grade	Range	Grade	Range	Grade	Range
	BIN 14	480~680	B	1.8~1.9	R1	630~640
			C	1.9~2.0	R2	640~646
			D	2.0~2.1		

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

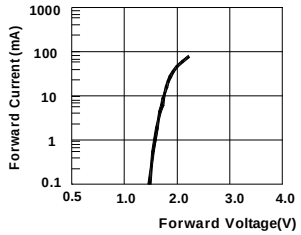


Fig 2. Relative Intensity vs. Forward Current

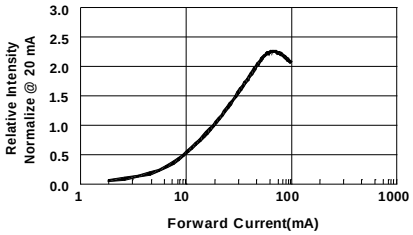


Fig 3. Forward Voltage vs. Temperature

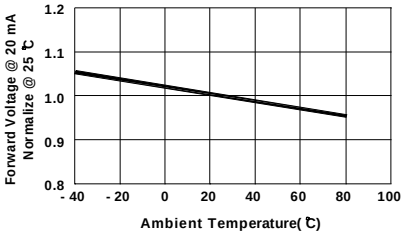


Fig 4. Relative Intensity vs. Temperature

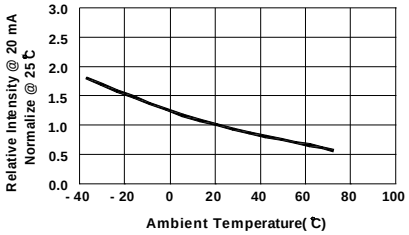


Fig 5. Relative Intensity vs. Wavelength

