

VAOL-3MDE2

Feature

- Low Power Consumption
- I.C. compatible

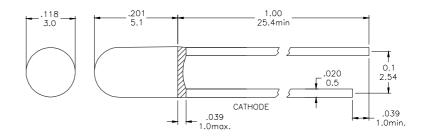
Applications

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

Description

- These LEDs are Based on GaP/GaPMaterial Technology
- Emitted color:Green
- Green Diffusion Lens

Package Dimension



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

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°C	0.4	mA / °℃			
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℃

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Unit
VF	Forward Voltage	IF= 20 mA		2.2	2.4	V
IR	Reverse Current	VR = 5 V			50	μ A
$\triangle \theta$	Half Intensity Angle	IF= 20 mA		60		Deg.
IV	Luminous Intensity	IF= 20 mA		80		mcd.
λd	Dominant Wavelength	IF= 20 mA		570		nm





Electrical Characteristics at Ta=25°C

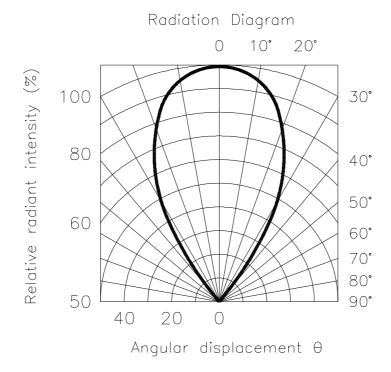
Symbol		Iv		$ m V_F$		λD	
Parameter	Lum	inous Intensity	Forward Voltage		Dominant Wavelength		
Condition	IF=20mA		IF=20mA		IF=20mA		
Unit		mcd	V		nm		
	Grade	Range	Grade	Range	Grade	Range	
			D	2.0~2.1	G7	567~569	
Binning		-	Е	2.1~2.2	G8	569~571	
Diminig			F	2.2~2.3	G9	571~573	
			G	2.3~2.4			

Intensit: Tolerance of minimum and maximum = $\pm 15\%$ Vf: Tolerance of minimum and maximum = $\pm 0.05v$ 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 = 60°

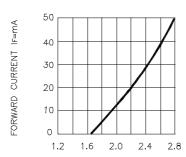




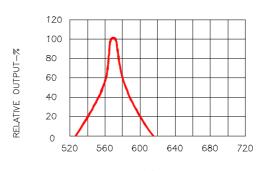


GREEN

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



FORWARD VOLTAGE(VF)-VOLTS Fig.1 FORWARD CURRENT VS FORWARD VOLTAGE



WAVELENGTH(λ)-nm Fig.2 SPECTRAL RESPONSE

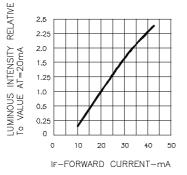
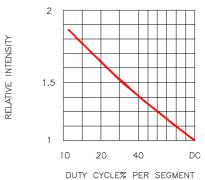


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



(AVERAGE IF=10mA) Fig.4 LUMINOUS INTENSITY VS.DUTY CYCLE

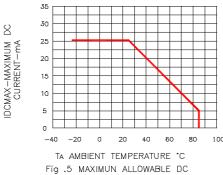
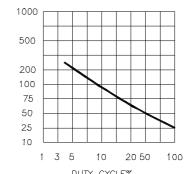


Fig .5 MAXIMUN ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCITION OF AMBIENT TEMPERATURE



DUTY CYCLE% Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)





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