

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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SUPERBRIGHT LED LAMP VAOL-10GRE4

Feature

Low Power Consumption High Intensity I.C. compatible

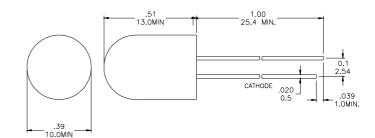
Applications

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

Description

These High Intensity LEDs are Based on AlGaInP Material Technology Emitted color:Red Water Transparent Lens

Package Dimension



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

Absolute Maximum Ratings at Ta=25°C

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°C	0.4	mA / °C		
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		2.0	2.4	V
IR	Reverse Current	VR= 5	V			100	μ A
$\triangle \theta$	Half Intensity Angle	IF= 20	mA		25		Deg.
IV	Luminous Intensity	IF= 20	mA		2500		mcd.
λp	Peak Wavelength	IF= 20	mA		630		nm
λd	Dominant Wavelength	IF= 20	mA		623		nm







Electrical Characteristics at Ta=25°C

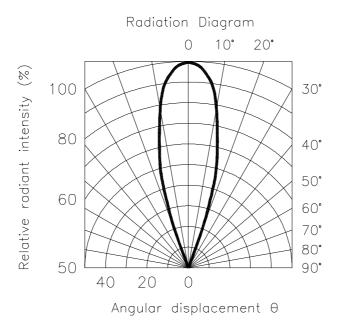
Symbol	Iv		V _F		λD	
Parameter	Luminous Intensity		Forward Voltage		Dominant Wavelength	
Condition	IF=20mA		IF=20mA		IF=20mA	
Unit		mcd	V		nm	
	Grade	Range	Grade	Range	Grade	Range
	BIN18	1800~2500	В	1.8~1.9	O2	620~625
	BIN19	2500~3500	С	1.9~2.0	О3	625~630
Binning			D	2.0~2.1		
			Е	2.1~2.2		
			F	2.2~2.3		

Intensity: Tolerance of minimum and maximum = \pm 15% Vf: Tolerance of minimum and maximum = \pm 0.05v

NOTE:

Radiation Diagram

IF=20 mA 50% Power Angle $=25^{\circ}$







^{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.



Typical Electro-Optical Characteristics Curves

