

**Feature**

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

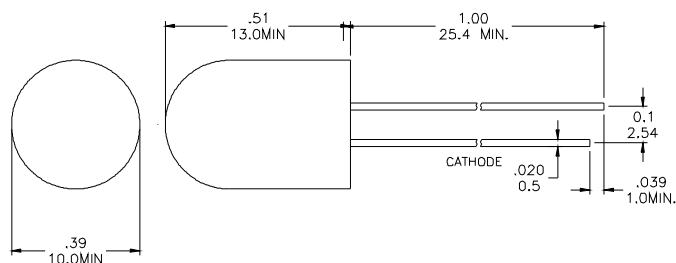
**Applications**

- 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±  $\frac{0.01}{0.25}$  Unit±  $\frac{\text{inch}}{\text{mm}}$

**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	°C
Tstg	Storage Temperature Range	- 40 to + 100	°C

Lead Soldering Temperature [1.6mm (0.063inch) From Body] 260°C For 5 Seconds.

**Electrical / Optical Characteristics and Curves at Ta=25°C**

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
VF	Forward Voltage	IF= 20 mA		2.0	2.4	V
IR	Reverse Current	VR= 5 V			100	μA
Δθ	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	I <sub>v</sub>		V <sub>F</sub>		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
	BIN18	1800~2500	B	1.8~1.9	O2	620~625
	BIN19	2500~3500	C	1.9~2.0	O3	625~630
			D	2.0~2.1		
			E	2.1~2.2		
			F	2.2~2.3		

Intensity: Tolerance of minimum and maximum = ± 15%

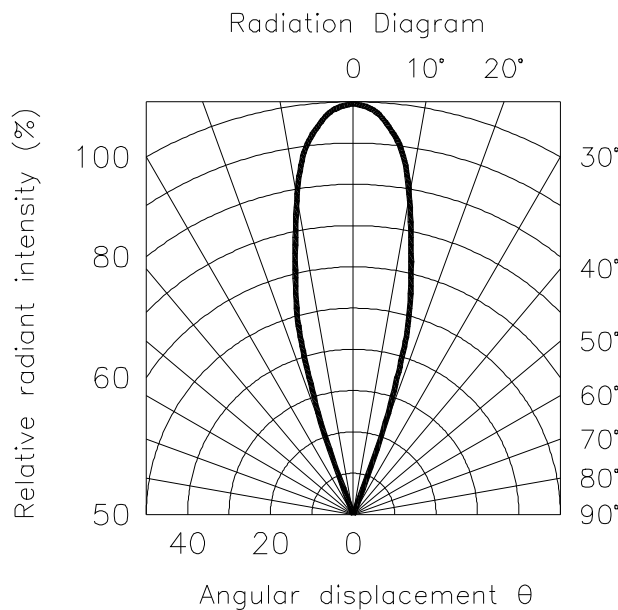
V<sub>f</sub>: Tolerance of minimum and maximum = ± 0.05v

NOTE:

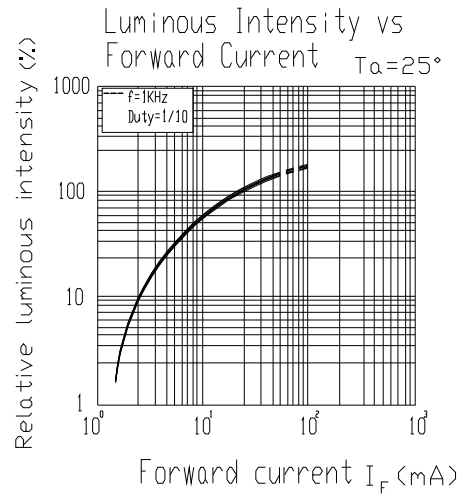
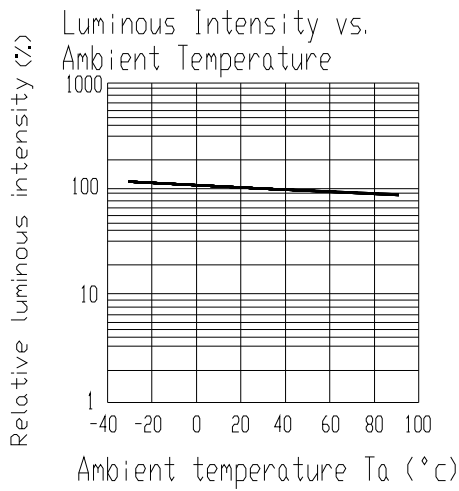
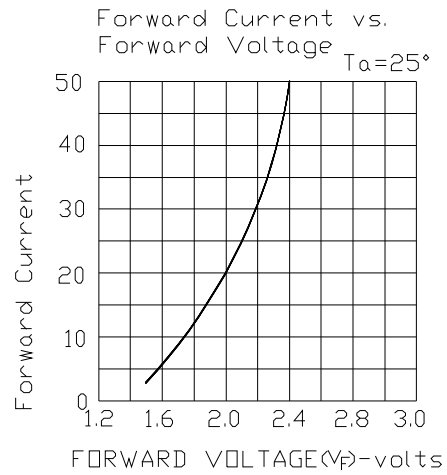
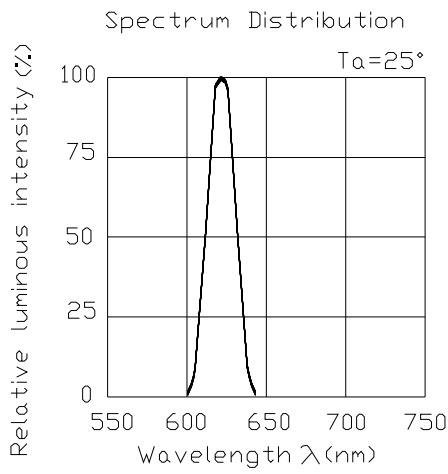
1. Static electricity and surge damages the LED. It is recommend to use a anti-static wrist band or anti-electrostatic glove when handing the LEDs. All devices, equipment and machinery must be properly grounded.

**Radiation Diagram**

**IF=20 mA    50% Power Angle    Angle =25°**



### Typical Electro-Optical Characteristics Curves



Forward Current Derating Curve

