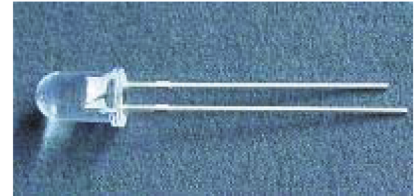


## Features

- High efficiency
- Low Power consumption
- General purpose leads
- Selected minimum intensities
- Available on tape and reel
- RoHS compliant



## Descriptions

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc
- Superior performance in outdoor environment

## Usage Notes:

- When using LED, it must use a protective resistor in series with DC current about 18-20mA

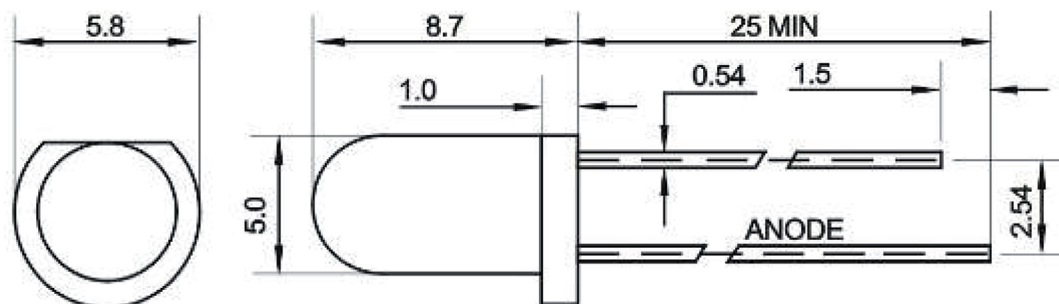
## Applications

- ◆ Outdoor and Indoor LED Display
- ◆ Traffic Signal
- ◆ Lighting
- ◆ General Purpose Indicators
- ◆ Back Light
- ◆ VWS

## Device Selection Guide

	Chip		Lens Color
	Material	Emitted Color	
	AlGaInP	Red	Water clear

## Package Dimensions



## Notes:

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.

### Absolute Maximum Rating ( $T_a=25^{\circ}\text{C}$ )

Parameter	Symbol	Absolute Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	$I_{\text{FPM}}$	100	mA
Forward Current	$I_{\text{FM}}$	25	mA
Reverse Voltage	$V_{\text{R}}$	5	V
Power Dissipation	$P_{\text{D}}$	150	mW
Operating Temperature	$T_{\text{opr}}$	-30~+80	$^{\circ}\text{C}$
Storage Temperature	$T_{\text{stg}}$	-40~+85	$^{\circ}\text{C}$
Soldering Heat (3s)	$T_{\text{sol}}$	260	$^{\circ}\text{C}$

### Electro-Optical Characteristics ( $T_a=25^{\circ}\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_{\text{v}}$	15000	---	20000	mcd	IF=20mA(Note1)
Viewing Angle	$2\theta_{1/2}$	---	15	---	Deg	(Note 2)
Peak Emission Wavelength	$\lambda_{\text{p}}$	620	---	630	nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$	15	20	25	nm	IF=20mA
Forward Voltage	$V_{\text{F}}$	1.9	---	2.5	V	IF=20mA
Reverse Current	$I_{\text{R}}$	---	---	10	$\mu\text{A}$	VR=5V

#### Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

## Typical Electro-Optical Characteristics Curves

