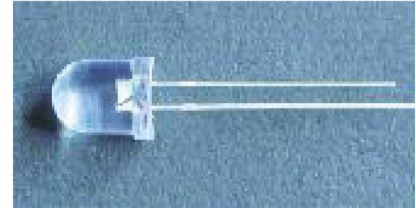


## Features

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



## 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 20mA

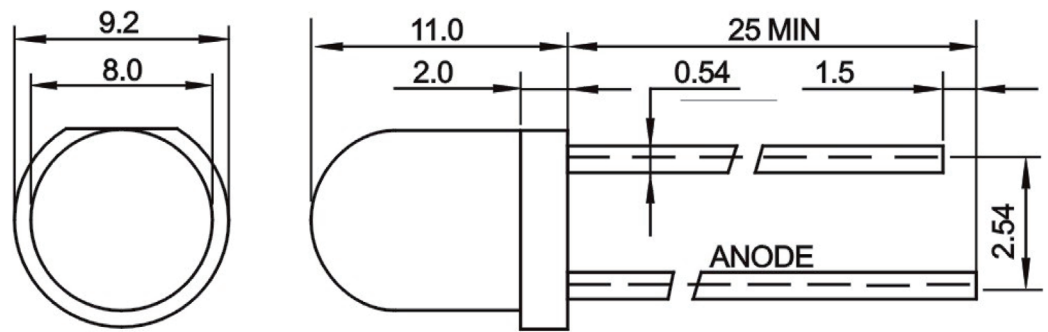
## Applications

- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

## Device Selection Guide

	Chip		Lens Color
	Material	Emitted Color	
	InGaN	White	Water clear

## Package Dimensions



UNIT:mm

## 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<sub>a</sub>=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	I <sub>FPM</sub>	70	mA
Forward Current	I <sub>FM</sub>	30	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	140	mW
Operating Temperature	T <sub>opr</sub>	-40~+80	°C
Storage Temperature	T <sub>stg</sub>	-40~+100	°C
Soldering Heat (5s)	T <sub>sol</sub>	260	°C

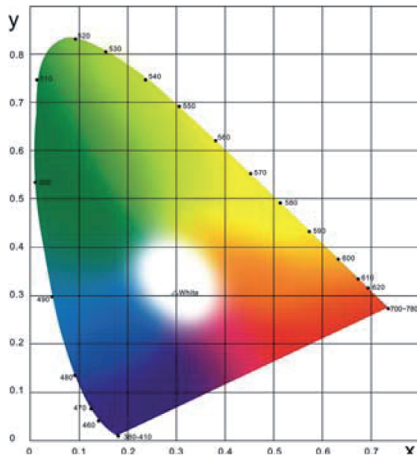
### Electro-Optical Characteristics (T<sub>a</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>V</sub>	2000	3500	---	mcd	IF=20mA(Note 1)
Viewing Angle	2θ <sub>1/2</sub>	---	25	---	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>	---	---	---	nm	IF=20mA
Spectral Line Half-Width	Δλ	25	30	35	nm	IF=20mA
Forward Voltage	V <sub>F</sub>	2.9	---	3.5	V	IF=20mA
Reverse Current	I <sub>R</sub>	---	---	10	μA	VR=5V

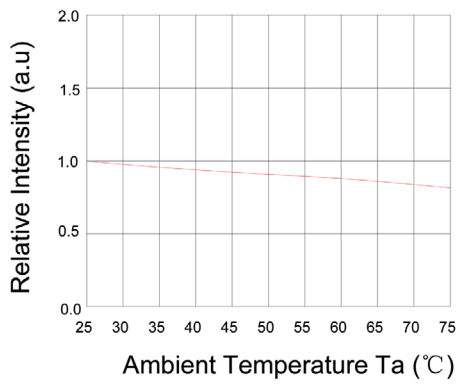
#### Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

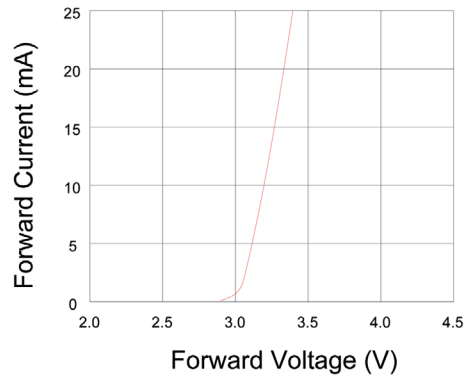
## Typical Electro-Optical Characteristics Curves



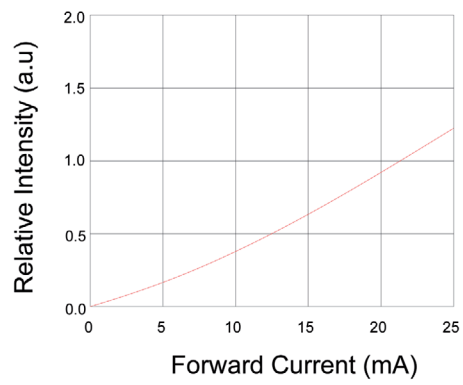
Relative Intensity VS. Ambient Temp



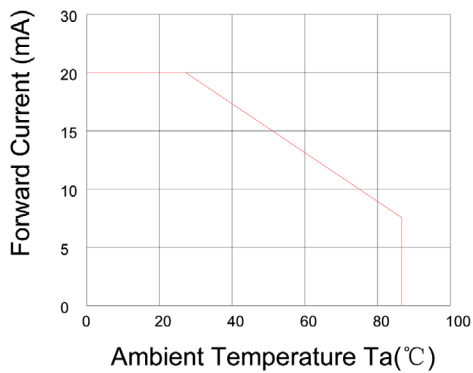
Forward Current VS. Forward Voltage



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

