



**OptoSupply**

*Light It Up*

**5mm Round Ultra Bright White LED**

**OSW47L511A-78**

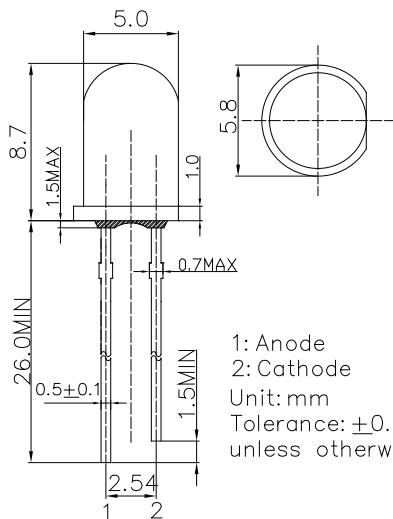
## ■ Features

- Ultra Bright LED
- 5mm Round Standard Directivity
- Long Lifetime Operation
- UV Resistant Epoxy
- Water Clear Type

## ■ Applications

- Backlighting (illuminated advertising etc.)
- Substitution of Micro Incandescent Lamps
- Reading Lamps / Emergency Lighting
- Marker lights (e.g. steps, exit ways, etc.)

## ■ Outline Dimension

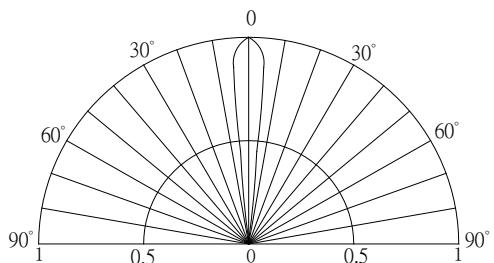


## ■ Absolute Maximum Rating (Ta=25°C)

| Item                       | Symbol           | Value      | Unit |
|----------------------------|------------------|------------|------|
| DC Forward Current         | I <sub>F</sub>   | 50         | mA   |
| Pulse Forward Current#     | I <sub>FP</sub>  | 120        | mA   |
| Reverse Voltage            | V <sub>R</sub>   | 5          | V    |
| Power Dissipation          | P <sub>D</sub>   | 150        | mW   |
| Operating Temperature      | T <sub>opr</sub> | -30 ~ +85  | °C   |
| Storage Temperature        | T <sub>stg</sub> | -40 ~ +100 | °C   |
| Lead Soldering Temperature | T <sub>sol</sub> | 260°C/5sec | -    |

#Pulse width Max 10ms , Duty ratio max 1/10

## ■ Directivity



## ■ Electrical -Optical Characteristics (Ta=25°C)

| Item                                   | Symbol            | Condition            | Min.  | Typ.  | Max. | Unit |
|--|-------------------|----------------------|-------|-------|------|------|
| DC Forward Voltage* <sub>1</sub>       | V <sub>F</sub>    | I <sub>F</sub> =20mA | -     | 2.7   | 3.0  | V    |
| DC Reverse Current                     | I <sub>R</sub>    | V <sub>R</sub> =5V   | -     | -     | 10   | µA   |
| Luminous Flux* <sub>2</sub>            | Φ <sub>V</sub>    | I <sub>F</sub> =20mA | 9     | 11    | -    | lm   |
| Luminous Intensity* <sub>3</sub>       | I <sub>v</sub>    | I <sub>F</sub> =20mA | 60000 | 70000 | -    | mcd  |
| Color Temperature* <sub>4</sub>        | CCT               | I <sub>F</sub> =20mA | 5500  | 6500  | 8500 | K    |
| Chromaticity Coordinates* <sub>5</sub> | x                 | I <sub>F</sub> =20mA | -     | 0.31  | -    |      |
|  | y                 | I <sub>F</sub> =20mA | -     | 0.33  | -    |      |
| 50% Power Angle                        | 2θ <sub>1/2</sub> | I <sub>F</sub> =20mA | -     | 15    | -    | deg  |

\*<sub>1</sub> Tolerance of measurements of forward voltage is ±0.1V

\*<sub>2</sub> Tolerance of measurements of luminous flux is ±15%

\*<sub>3</sub> Tolerance of measurements of luminous intensity is ±15%

\*<sub>4</sub> Tolerance of measurements of color temperature is ±10%

\*<sub>5</sub> Tolerance of measurements of chromaticity coordinates is ±10%

**LED & Application Technologies**

