OptoSupply
Light It Up

# Xeon 1 Power Pure Green LED

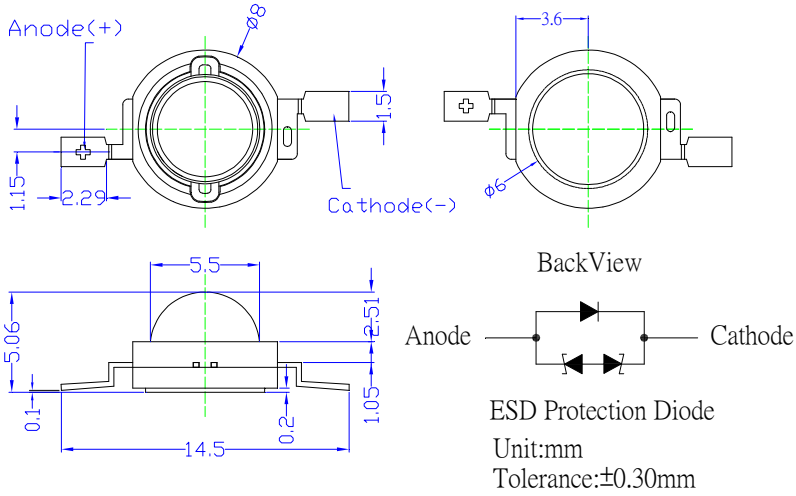
## OSG5XNE1E1E

## VER.C.3

## ■Features

- Highest Luminous Flux
- Super Energy Efficiency
- Long Lifetime Operation
- Superior ESD protection
- Superior UV Resistance

## ■Outline Dimension




## ■Applications

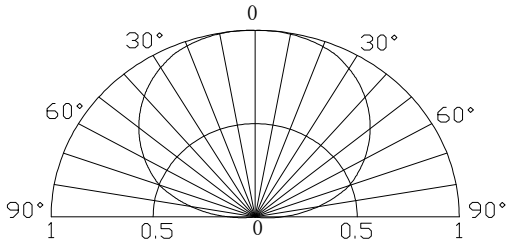
- Read lights (car, bus, aircraft)
- Portable (flashlight, bicycle)
- Bollards / Security / Garden
- Traffic signaling / Beacons
- In door / Out door Commercial lights
- Automotive Ext

## ■Absolute Maximum Rating (Ta=25℃)

| Item | Symbol | Value | Unit |
|---|---|---|---|
| DC Forward Current | $I_F$ | 400 | mA |
| Pulse Forward Current* | $I_{FP}$ | 500 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Power Dissipation | $P_D$ | 1600 | mW |
| Operating Temperature | Topr | -30 ~ +85 | ℃ |
| Storage Temperature | Tstg | -40~ +100 | ℃ |
| Lead Soldering Temperature | Tsol | 260℃/5sec | - |

*Pulse width Max.10ms Duty ratio max 1/10

## ■Directivity



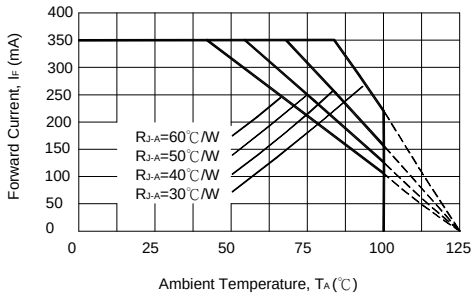

## ■Electrical -Optical Characteristics (Ta=25℃)

| Item | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| DC Forward Voltage | $V_F$ | $I_F$=350mA | 3.0 | 3.3 | 4.0 | V |
| DC Reverse Current | $I_R$ | $V_R$=5V | - | - | 10 | μA |
| Domi. Wavelength | $\lambda_D$ | $I_F$=350mA | 520 | 525 | 530 | nm |
| Luminous Flux | Φv | $I_F$=350mA | 80 | 95 | - | lm |
| 50% Power Angle | $2\theta_{1/2}$ | $I_F$=350mA | - | 140 | - | deg |

*1 Tolerance of measurements of dominant wavelength is ±1nm
*2 Tolerance of measurements of luminous flux is ±15%
*3 Tolerance of measurements of forward voltage is±0.1V

Note: Don't drive at rated current more than 5s without heat sink for Xeon 1 emitter series.

## ■Forward Operating Current (DC)



■ **Soldering Heat Reliability :**

Reflow soldering Profile

· Reflow soldering should not be done more than two times.

· When soldering, do not put stress on the LEDs during heating.

· After soldering, do not warp the circuit board.

· Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the **characteristics of the LEDs will or will not be damaged by repairing.**

| **Solder** |
|---|
| Average ramp-up rate = 3ºC/sec. max. |
| Preheat temperature: 150º~180ºC |
| Preheat time = 120 sec. max. |
| Ramp-down rate = 6ºC/sec. max. |
| Peak temperature = 220ºC max. |
| Time within 3ºC of actual peak temperature = 25 sec. max. |
| Duration above 200ºC is 40 sec. max. |