OptoSupply
Light It Up

# Xeon H Power Warm White LED

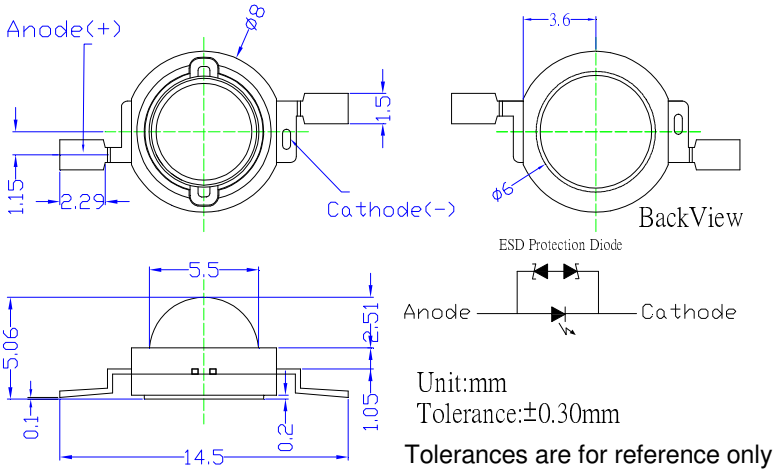
## OSM5XNEHE1E

## VER C.1

## ■Features

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

## ■Outline Dimension




Unit:mm
Tolerance:±0.30mm
Tolerances are for reference only

## ■Applications

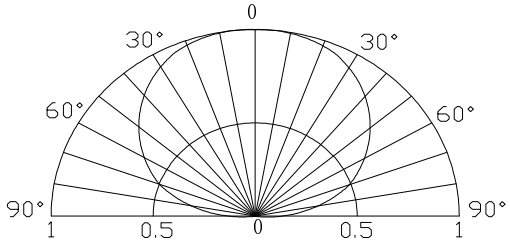
- Read lights (car, bus, aircraft)
- Portable (flashlight, bicycle)
- Bollards / Security / Garden
- Traffic signaling / Beacons
- In door / Out door Commercial lights
- Automotive Ext

## ■Absolute Maximum Rating (Ta=25℃)

| Item | Symbol | Value | Unit |
|---|---|---|---|
| DC Forward Current | $I_F$ | 200 | mA |
| Pulse Forward Current* | $I_{FP}$ | 250 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Power Dissipation | $P_D$ | 800 | 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



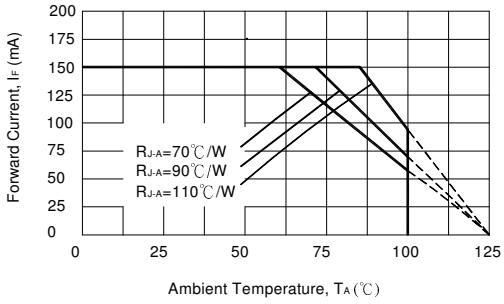

## ■Electrical -Optical Characteristics (Ta=25℃)

| Item | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| DC Forward Voltage | $V_F$ | $I_F$=150mA | 3.0 | 3.3 | 4.0 | V |
| DC Reverse Current | $I_R$ | $V_R$=5V | - | - | 10 | μA |
| Luminous Flux | Φv | $I_F$=150mA | 15 | 20 | - | lm |
| Color Temperature | CCT | $I_F$=150mA | - | 3000 | - | K |
| Chromaticity Coordinates* | x | $I_F$=150mA | - | 0.45 | - | - |
| | y | $I_F$=150mA | - | 0.41 | - | - |
| 50% Power Angle | $2\theta_{1/2}$ | $I_F$=150mA | - | 140 | - | deg |

*1 Tolerance of measurements of chromaticity coordinates is ±10%
*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 H emitter series.

## ■Forward Operating Current (DC)




LED & Application Technologies

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■ **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. |