OptoSupply
Light It Up

Xeon 1 Power Red Emitter

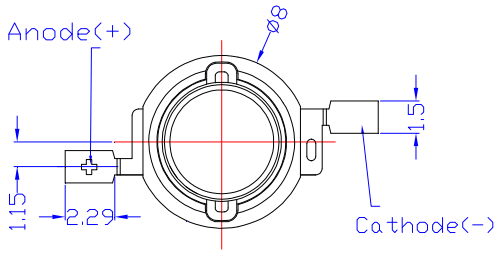
OSR7XNE1E1E

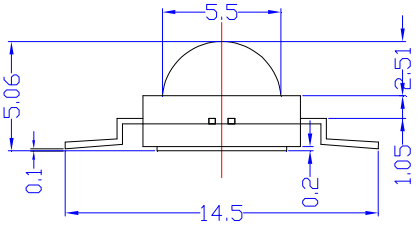
VER C.3

▪Features

- Highest luminous flux
- Super energy efficiency
- Very long operating life
- Superior ESD protection

▪Outline Dimension





Unit:mm
Tolerances are for reference only

▪Applications

- Green House Applications
- Red : Blue LED Iv Ratio is 8:1*

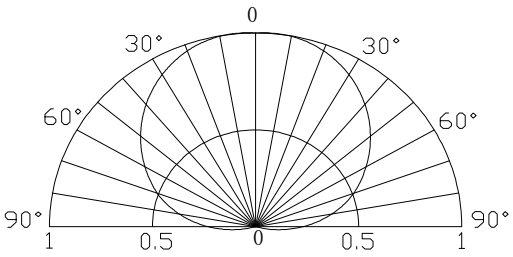
*The ratio is summarized by the photosynthesis test on Phalaenopsis and provided from plant workshop in Taiwan.

▪Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value	Unit
DC Forward Current	I_F	500	mA
Pulse Forward Current*	I_{FP}	700	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	2450	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



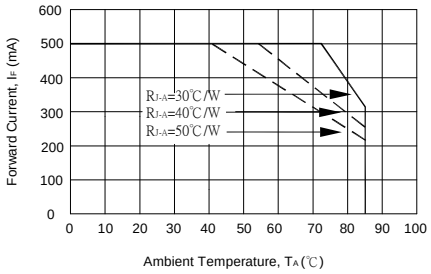
▪Electrical -Optical Characteristics (Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage	V_F	I_F=350mA	2.0	2.3	3.0	V
DC Reverse Current	I_R	V_R=5V	-	-	10	μA
Peak Wavelength	λ_P	I_F=350mA	650	660	670	nm
Radiant Power	Po	I_F=350mA	120	150	-	mW
50% Power Angle	$2\theta_{1/2}$	I_F=350mA	-	140	-	deg

*1 Tolerance of measurements of peak wavelength is ±1nm
*2 Tolerance of measurements of radiant power 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 3 emitter series.

■Forward Operating Current (DC)



LED & Application Technologies

ISO 9001: 2008

RoHS Compliant EU2002/95/EC

REACH The new EU chemicals legislation

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

■ **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.