OptoSupply
Light It Up

Xeon 2 Power 940nmInfrared Emitter LED

OSI5XNE3E1E

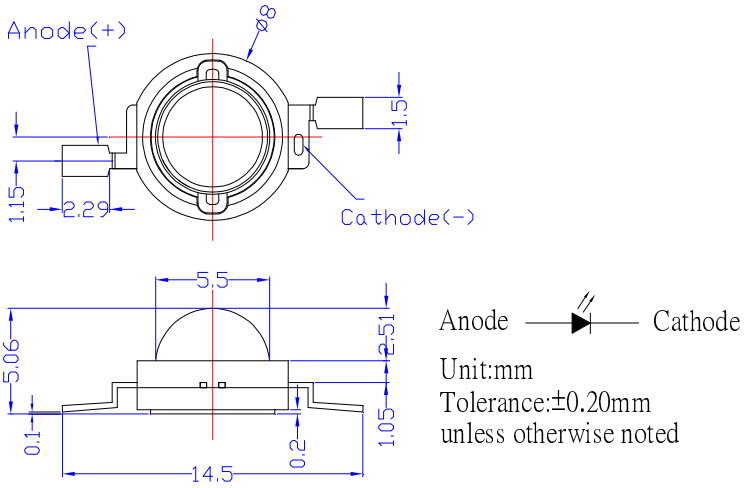
▪Features

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

▪Applications

- Night Vision
- Camera
- Outdoor./Indoor applications

▪Outline Dimension

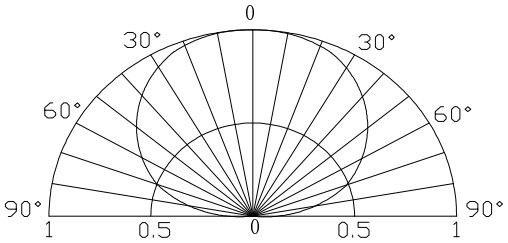


▪Absolute Maximum Rating (Ta=25℃)

Item	Symbol	Value	Unit
DC Forward Current	I_F	1,000	mA
Pulse Forward Current#	I_{FP}	2,000	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	2,000	mW
Operating Temperature	Topr	-30 ~ +85	℃
Storage Temperature	Tstg	-40~ +100	℃
Manual 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*1	V_F	I_F=700mA	-	1.6	2.0	V
DC Reverse Current	I_R	V_R=5V	-	-	10	μA
Peak Wavelength*2	λ_P	I_F=700mA	-	940	-	
Radiant Intensity*3	Ie	I_F=700mA	50	68	-	mW/Sr
Radiant Power*4	Po	I_F=350mA	60	75	-	mW
		I_F=700mA	120	150	-	
50% Power Angle	$2\theta_{1/2}$	I_F=700mA	-	140	-	deg

*1 Tolerance of measurements of forward voltage is ±0.1V
*2 Tolerance of measurements of Peak wavelength is ±1nm
*3 Tolerance of measurements of Radiant Intensity is ±15%
*3 Tolerance of measurements of Radiant Power is ±15%

Note: Don't drive at rated current more than 5s without heat sink for Xeon 2 emitter series.

■ **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.