

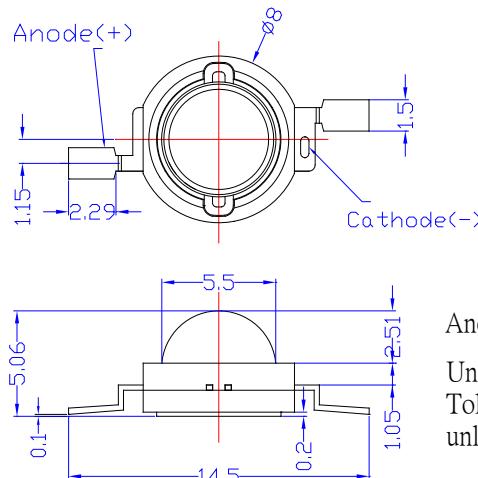
■Features

- High radiant power
- Super energy efficiency
- Very long operating life
- Superior ESD protection

■Applications

- Night Vision
- Camera
- Outdoor /Indoor applications

■Outline Dimension



Anode ————— Cathode
Unit:mm
Tolerance: $\pm 0.20\text{mm}$
unless otherwise noted

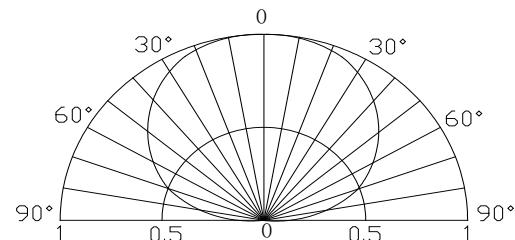
■Absolute Maximum Rating

(Ta=25°C)

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	T _{opr}	-30 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Manual Soldering Temperature	T _{sol}	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* 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	-	nm
Radiant Intensity* ₃	I _e	I _F =700mA	260	280	-	mW/Sr
Radiant Power* ₄	P _o	I _F =700mA	160	180	-	mW
50% Power Angle	2θ _{1/2}	I _F =700mA	-	140	-	deg

*₁ Tolerance of measurements of forward voltage is $\pm 0.1\text{V}$

*₂ Tolerance of measurements of Peak wavelength is $\pm 1\text{nm}$

*₃ Tolerance of measurements of Radiant Intensity is $\pm 15\%$

*₃ Tolerance of measurements of Radiant Power is $\pm 15\%$

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

LED & Application Technologies



■ 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 = 3°C/sec. max.
Preheat temperature: 150°~180°C
Preheat time = 120 sec. max.
Ramp-down rate = 6°C/sec. max.
Peak temperature = 220°C max.
Time within 3°C of actual peak temperature = 25 sec. max.
Duration above 200°C is 40 sec. max.

