

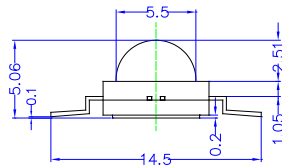
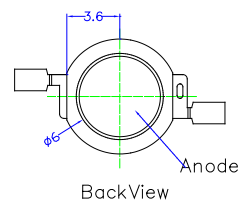
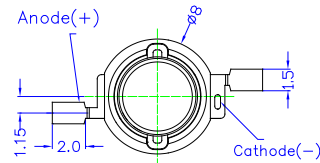
■Features

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

■Applications

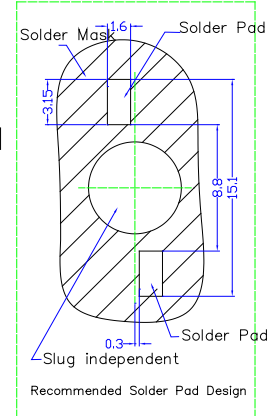
- Night Vision
- Camera
- Outdoor/Indoor applications

■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	1000	mA
Pulse Forward Current#	I_{FP}	2000	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	2200	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

■Electrical -Optical Characteristics

(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
DC Forward Voltage*1	V_F	$I_F=700\text{mA}$	-	1.8	2.2	V
DC Reverse Current	I_R	$V_R=5\text{V}$	-	-	10	μA
Peak Wavelength*2	λ_P	$I_F=700\text{mA}$	780	785	790	nm
Radiant Power*3	P_O	$I_F=700\text{mA}$	600	700	-	mW
50% Power Angle	$2\theta_{1/2}$	$I_F=700\text{mA}$	-	120	-	deg

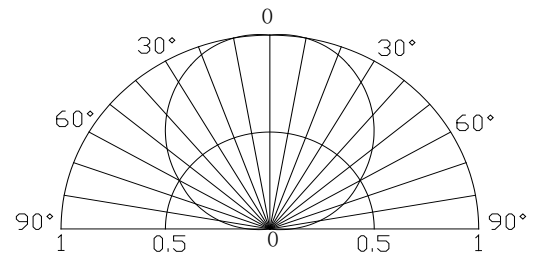
*1 Tolerance of measurements of forward voltage is $\pm 0.1\text{V}$

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

*3 Tolerance of measurements of radiant power is $\pm 15\%$

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

■Directivity



■ 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.

