

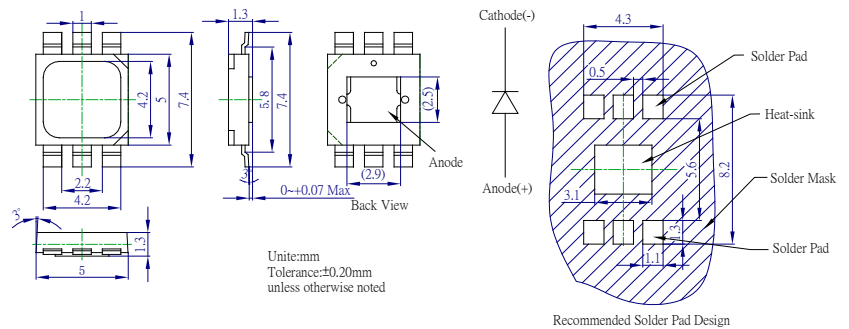
■Features

- High radiant power
- Super energy efficiency
- Superior ESD protection

■Applications

- Night Vision
- Camera
- Outdoor/Indoor applications

■Outline Dimension



■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
Lead Soldering Temperature	T_{sol}	260°C/10sec	-

#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	$I_F=700mA$	-	1.8	2.2	V
DC Reverse Current	I_R	$V_R=5V$	-	-	10	μA
Peak Wavelength*2	λ_P	$I_F=700mA$	780	785	790	nm
Radiant Power*3	P_o	$I_F=700mA$	600	700	-	mW
50% Power Angle	$2\theta_{1/2}$	$I_F=700mA$	-	120	-	deg

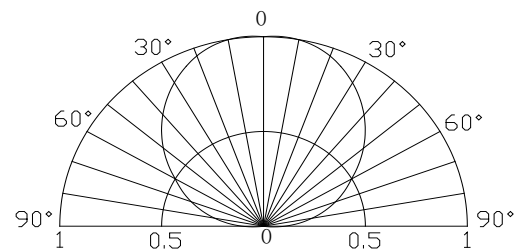
*1 Tolerance of measurements of forward voltage is $\pm 0.1V$

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

*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.

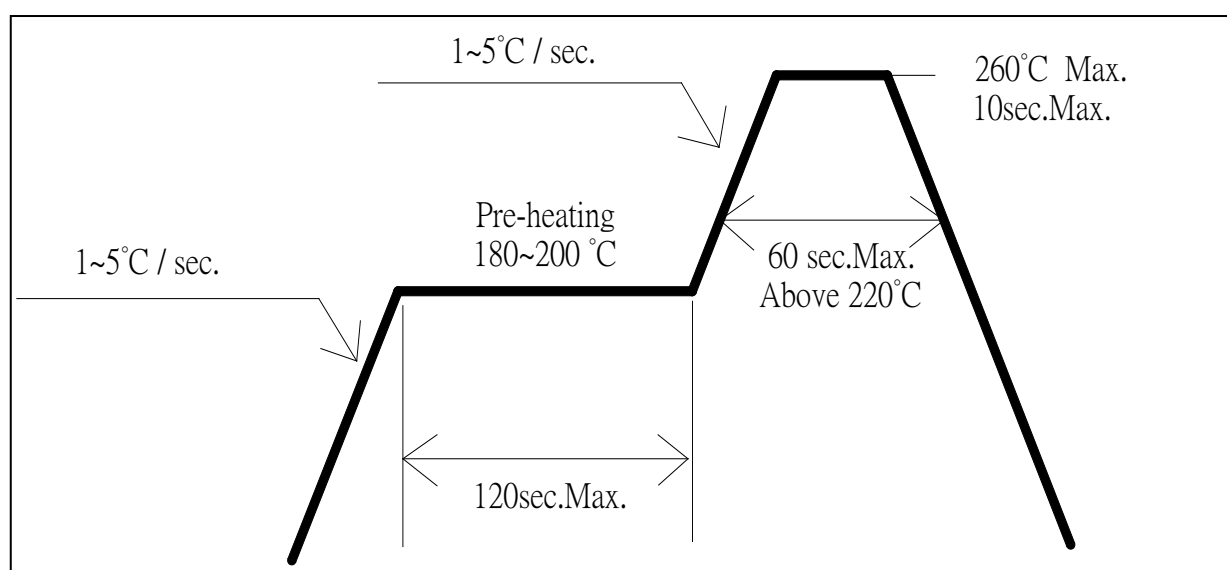
■Directivity



■ Soldering Conditions

Reflow Soldering		Hand Soldering	
Pre-Heat	180 ~ 200°C	Temperature Soldering time	350°C Max. 3 sec. Max. (one time only)
Pre-Heat Time	120 sec. Max.		
Peak Temperature	260°C Max.		
Dipping Time	10 sec. Max.		
Condition	Refer to Temperature-profile		

• Reflow Soldering Condition(Lead-free Solder)



*Recommended soldering conditions vary according to the type of LED

*Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.

*A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.

• All SMD LED products are pb-free soldering available.

• Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.

• 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.

• 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.

**OSI2XAT3C1E**