

#### **Xeon 1 Power Pure Green Star LED**

#### OSG5XNE1E1S

#### **■Features**

- · Highest Luminous Flux
- · Super Energy Efficiency
- · Long Lifetime Operation
- · Superior ESD protection
- · Superior UV Resistance

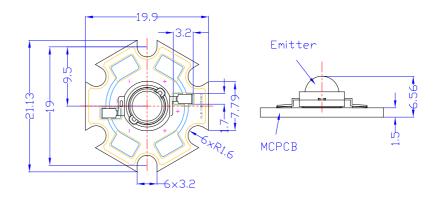
## **■**Applications

- Read lights (car, bus, aircraft)
- Portable (flashlight, bicycle)
- · Bollards / Security / Garden
- Traffic signaling / Beacons
- In door / Out door Commercial lights
- · Automotive Ext

#### **Outline Dimension**

(Ta=25°C)

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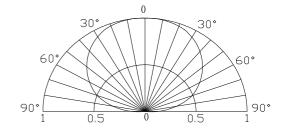


Unit:mm
Tolerances are for reference only

### **■**Absolute Maximum Rating

Item	Symbol	Value	Unit
DC Forward Current	$I_{\mathrm{F}}$	400	mA
Pulse Forward Current#	$I_{FP}$	500	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	P <sub>D</sub>	1600	mW
Operating Temperature	Topr	-30 ~ +85	$^{\circ}\mathbb{C}$
Storage Temperature	Tstg	-40~ +100	$^{\circ}\!\mathbb{C}$
Lead Soldering Temperature	Tsol	260°€/5sec	-

## **■**Directivity



#Pulse width Max.10ms Duty ratio max 1/10

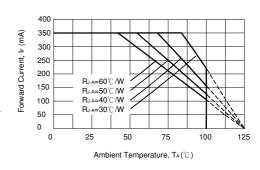
#### **■**Electrical -Optical Characteristics

Item	Symbol	Condition	Min.	Тур.	Max.	Unit
DC Forward Voltage*	$V_{\rm F}$	I <sub>F</sub> =350mA	3.0	3.3	4.0	V
DC Reverse Current	$I_R$	V <sub>R</sub> =5V	-	-	10	μA
Domi. Wavelength*	$\lambda_{ m D}$	I <sub>F</sub> =350mA	520	525	530	nm
Luminous Flux*	Фи	I <sub>F</sub> =350mA	80	95	-	lm
50% Power Angle	2θ1/2	I <sub>F</sub> =350mA	-	140	-	deg

#### \*1 Tolerance of measurements of dominant wavelength is +1nm

Note: Don't drive at rated current more than 5s without heat sink for Xeon 1 emitter series.

# **■Forward Operating Current (DC)**



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<sup>\*2</sup> Tolerance of measurements of luminous intensity is ±15%

<sup>\*3</sup> Tolerance of measurements of forward voltage is±0.1V



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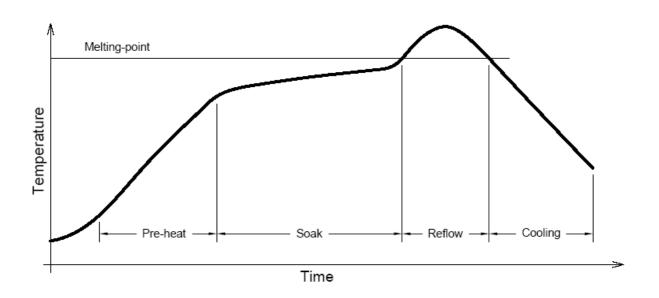
#### ■ Soldering Heat Reliability:

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,

#### 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 = $6^{\circ}$ 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.			



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