

### **Xeon 3 Power Red Star LED**

### OSR5XNE3E1S

#### **■**Features

- · Highest Luminous Flux
- · Super energy efficiency
- · Long Lifetime Operation
- · Superior UV Resistance

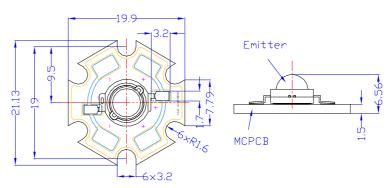
## **■**Applications

- 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
Tolerance:@.3mm
Tolerances are for reference only

### **■**Absolute Maximum Rating

Item	Symbol	Value	Unit
DC Forward Current	$I_{F}$	800	mA
Pulse Forward Current#	$I_{FP}$	1000	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	$P_D$	2400	mW
Operating Temperature	Topr	-30 ~ +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	Tstg	-40~ +100	$^{\circ}\!\mathbb{C}$
Lead Soldering Temperature	Tsol	260°€/5sec	-

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

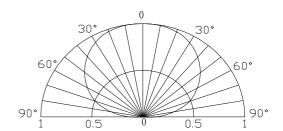
### **■**Electrical -Optical Characteristics

Item	Symbol	Condition	Min.	Тур.	Max.	Unit
DC Forward Voltage*1	$V_{\mathrm{F}}$	I <sub>F</sub> =350mA	2.0	2.3	3.0	V
		I <sub>F</sub> =700mA	2.5	2.8	3.5	V
DC Reverse Current	$I_R$	V <sub>R</sub> =5V	-	-	10	μΑ
Domi. Wavelength*2	$\lambda_{\mathrm{D}}$	I <sub>F</sub> =700mA	620	625	630	nm
Luminous Flux*3	Φν	I <sub>F</sub> =700mA	70	80	-	lm
50% Power Angle	201/2	I <sub>F</sub> =700mA	-	140	-	deg

<sup>\*1</sup> Tolerance of measurements of forward voltage is  $\pm 0.1$ V

Note: Don't drive at rated current more than 5s without heat sink for Xeon 3 emitter series.

# **■**Directivity



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<sup>\*2</sup> Tolerance of measurements of dominant wavelength is ±1nm

<sup>\*3</sup> Tolerance of measurements of luminous Flux is ±15%



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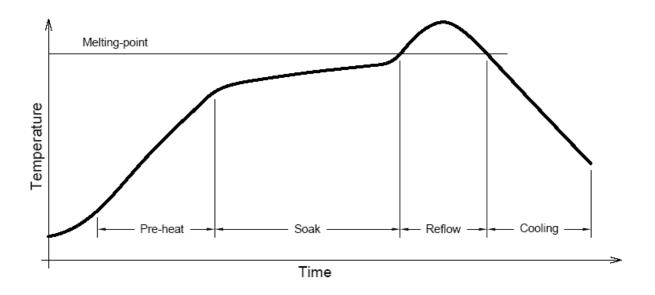
## ■ Soldering Heat Reliability:

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 =Low temperature + Lead Free			
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.			



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