

Xeon 3 Power Ultra Violet LED

# OSV3XME3E1E

### **Features**

#### • High Luminous Flux

- Super Energy Efficiency
- Long Lifetime Operation
- Superior ESD protection
- Superior UV Resistance

## ■Applications

- Money Detector
- UV-Curing
- Sensor light
- Photo-catalyst
- Other Lighting

# ■Absolute Maximum Rating

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Item	Symbol	Value	Unit
DC Forward Current	IF	700	mA
Pulse Forward Current#	$I_{\rm FP}$	1,000	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	3,150	mW
Operating Temperature	Topr	-30 ~ +85	°C
Storage Temperature	Tstg	-40~ +100	°C
Lead Soldering Temperature	Tsol	260°C/5sec	-

# Anode ESD Protection Diode Unit:mm Tolerance:±0.30mm

# •Directivity

0.5

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

# Electrical -Optical Characteristics

Symbol	Condition	Min.	Тур.	Max.	Unit
V	IF=350mA	3.0	3.3	4.0	V
VF	IF=700mA	3.5	3.8	4.5	V
IR	V <sub>R</sub> =5V	-	-	10	μΑ
$\lambda_{\rm P}$	IF=700mA	380	385	390	nm
Ро	IF=700mA	550	600	-	mW
2 <del>0</del> 1/2	IF=700mA	-	140	-	deg
	V <sub>F</sub> I <sub>R</sub> λ <sub>P</sub> Po	$V_{F} = \frac{I_{F}=350 \text{mA}}{I_{F}=700 \text{mA}}$ $I_{R} = V_{R}=5V$ $\lambda_{P} = I_{F}=700 \text{mA}$ $Po = I_{F}=700 \text{mA}$	$\frac{V_{F}}{V_{F}} = \frac{I_{F}=350 \text{mA}}{I_{F}=700 \text{mA}} = \frac{3.0}{3.5}$ $I_{R} = V_{R}=5 \text{V} - \frac{1}{2}$ $\lambda_{P} = I_{F}=700 \text{mA}} = \frac{380}{550}$ $Po = I_{F}=700 \text{mA} = 550$	$\frac{V_{F}}{V_{F}} = \frac{I_{F}=350 \text{mA}}{I_{F}=700 \text{mA}} = \frac{3.0}{3.3} = \frac{3.3}{3.8}$ $\frac{I_{R}}{I_{R}} = \frac{V_{R}=5V}{I_{F}=700 \text{mA}} = \frac{3.8}{380} = \frac{3.8}{385}$ $\frac{I_{F}=700 \text{mA}}{I_{F}=700 \text{mA}} = \frac{550}{550} = \frac{600}{600}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

\*1 Tolerance of measurements of Peak Wavelength is  $\pm 1$ nm

\*2 Tolerance of measurements of Radiant Power is  $\pm 15\%$ 

\*3 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 1 emitter series.

# LED & Application Technologies



TÜV

Anode(+)

(Ta=25°C)

(Ta=25℃)







90°

0.5

# Outline Dimension



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# Handling of Silicone Lens LEDs

Notes for handling of silicone lens LEDs

- Please do not use a force of over 3kgf impact or pressure on the silicone lens, otherwise it will cause a catastrophic failure.
- The LEDs should only be picked up by making contact with the sides of the LED body.
- Avoid touching the silicone lens especially by sharp tools such as Tweezers.
- Avoid leaving fingerprints on the silicone lens.
- Please store the LEDs away from dusty areas or seal the product against dust.
- When populating boards in SMT production, there are basically no restrictions regarding the form of the pick and place nozzle, except that mechanical pressure on the silicone lens must be prevented.
- Please do not mold over the silicone lens with another resin. (epoxy, urethane, etc)









