

3.2x1.6 x1.85mm 940nm Infrared Dome Lens Chip LED

OSI5120641E

■Features

- Single chip
- Compact package outline (L x W x T) of 3.2mm x 1.6mm x1.85mm
- Compatible to IR reflow soldering.
- Water Clear Lens Type

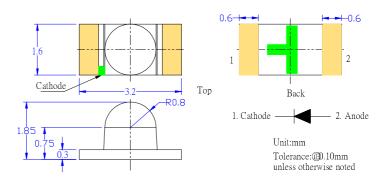
■Applications

- Automatic Control System
- Photo Detector
- Computer I/O Peripheral ■Absolute Maximum Rating

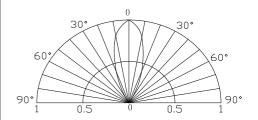
(Ta=25℃)

Value Item Symbol Unit DC Forward Current 30 I_F mA Pulse Forward Current* 100 I_{FP} mΑ Reverse Voltage 5 V V_R 48 Power Dissipation P_{D} mW Operating Temperature Topr -30 ~ +85 $^{\circ}$ C Storage Temperature °C Tstg -40~ +100 260°C/10sec Lead Soldering Temperature Tsol

■Outline Dimension



■Directivity



■Electrical -Optical Characteristics

Item	Symbol	Condition	Min.	Тур.	Max.	Unit
DC Forward Voltage	V_{F}	I _F =20mA	-	1.2	1.6	V
DC Reverse Current	I_R	V _R =5V	-	-	10	μΑ
Peak Wavelength	λ_p	I _F =20mA	-	940	-	nm
Transmit Bandwidth	λ	I _F =20mA	-	45	-	nm
Radiant Intensity	Ie	I _F =20mA	1	2	5	mW/Sr
50% Power Angle	2θ1/2	I _F =20mA	-	40	-	deg

^{*1} Tolerance of measurements of Peak wavelength is ±1nm

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^{*}Pulse width Max 0.1ms, Duty ratio max 1/10

^{*2} Tolerance of measurements of radiant intensity is $\pm 15\%$

^{*3} Tolerance of measurements of forward voltage is ± 0.1 V



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■ Cautions:

- 1. After open the package, the LED's floor life is 4 Weeks under 30℃ or less and 60%RH or less(MSL:2a).
- 2. Heat generation must be taken into design consideration when using the LED.
- 3. Power must be applied resistors for protection, over current would be caused the optic damage to the devices and wavelength shift.
- 4. Manual tip solder may cause the damage to Chip devices, so advised that heat of iron should be lower than 15W with temperature control under 5 seconds at 230-260 deg. C. (The device would be got damage in re working process, recommended under 5 seconds at 230-260 deg. C)
- 5. All equipment and machinery must be properly grounded. It is recommended to use a wristband or anti-electrostatic glove when handing the LED.
- 6. Use IPA as a solvent for cleaning the LED. The other solvent may dissolve the LED package and the epoxy, Ultrasonic cleaning should not be done.
- 7. Damaged LED will show unusual characteristics such as leak current remarkably increase, turn-on voltage becomes lower and the LED get unlight at low current.

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