

3.2x1.6 x1.85mm 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

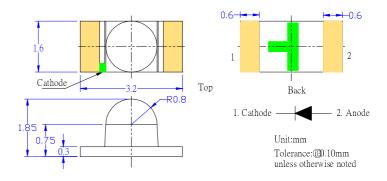
■Applications

- Automatic Control System
- Photo Detector
- Computer I/O Peripheral

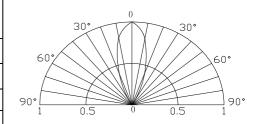
■Absolute Maximum Rating (Ta=25℃)

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

■Outline Dimension



■Directivity



■Electrical -Optical Characteristics (Ta=25°C)

| 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 | 1 | deg |

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

LED & Application Technologies









^{*}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 ±0.1V



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■ Cautions:

- 1. After open the package, the LED's floor life is 1 year under 30°C or less and 60%RH or less (MSL:2).
- 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.
- 8. OPTOSUPPLY will not do 4M change without advance consultation.







