

**Part No.: JSL-502IRC940D15**

## Features:

- High reliability.
- Peak wavelength  $\lambda_p=940\text{nm}$
- Low forward voltage
- High radiant intensity
- Available on tape and reel.
- Compliance with EU REACH.

## Descriptions:

- The device is spectrally matched with phototransistor , photodiode and infrared receiver module.
- The Infrared Emitting Diode is a high intensity diode.
- Device Outline: 5mm Round With Flange Type.
- Lens Type: Water Clear

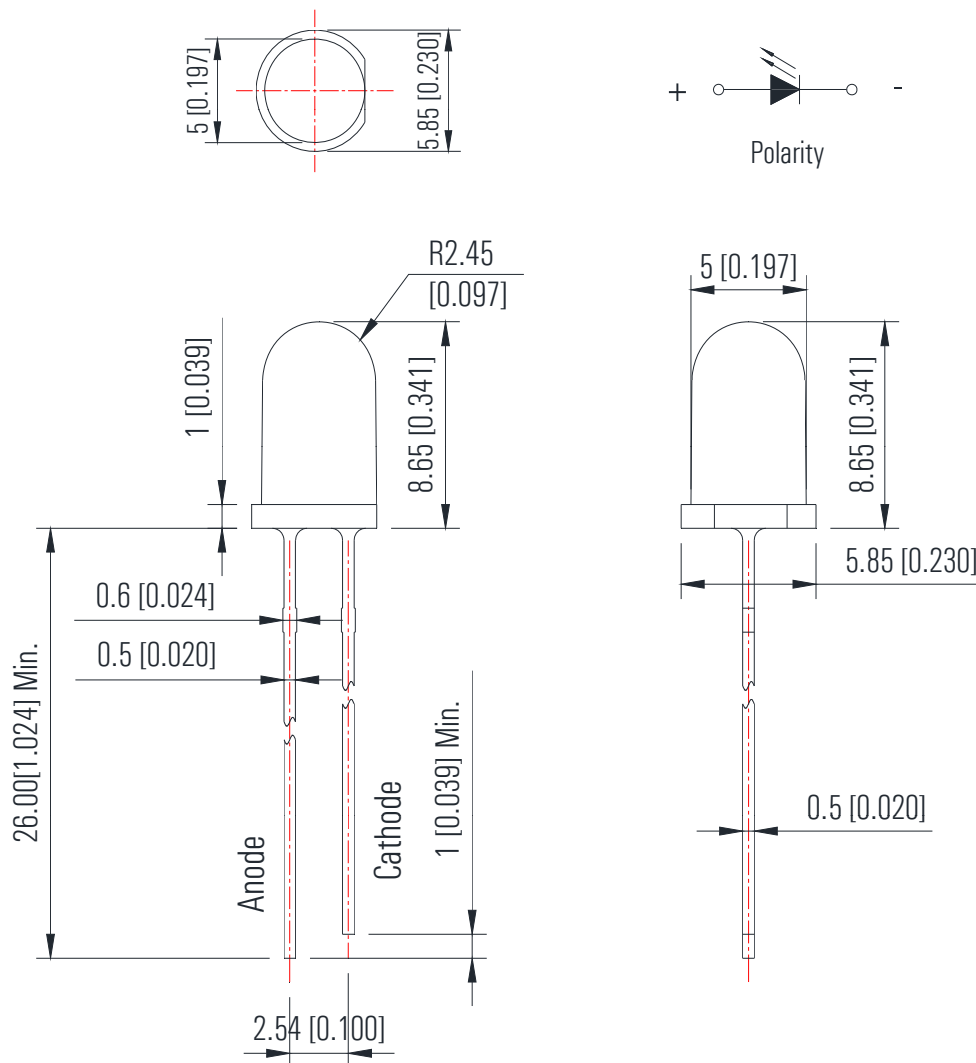
## Application:

- Industrial IR equipment.
- IR Touch-Panel.
- Optoelectronic switch.
- IR Communications.



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**Package Dimension:**



**Notes:**

1. All dimensions are millimeters/单位: mm.
2. Tolerance is +/-0.25mm unless otherwise noted/  
没有标注的公差均为±0.25mm

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## Absolute maximum ratings (Ta = 25°C)

| Parameter             | Symbol            | Test Condition         | Values |      | Unit |
|-----------------------|-------------------|------------------------|--------|------|------|
|                       |                   |                        | Min.   | Max. |      |
| Reverse Voltage       | V <sub>R</sub>    | I <sub>R</sub> = 30 μA | ----   | 5    | V    |
| Forward Current       | I <sub>F</sub>    | ----                   | ----   | 100  | mA   |
| Power Dissipation     | P <sub>d</sub>    | ----                   | ----   | 150  | mW   |
| Pulse Current         | I <sub>peak</sub> | Duty=0.1mS, 1kHz       | ----   | 800  | mA   |
| Operating Temperature | T <sub>opr</sub>  | ----                   | -40    | +85  | °C   |
| Storage Temperature   | T <sub>str</sub>  | ----                   | -40    | +85  | °C   |

## Electrical and optical characteristics (Ta = 25°C)

| Parameter                | Symbol            | Test Condition       | Values |      |      | Unit  |
|--------------------------|-------------------|----------------------|--------|------|------|-------|
|                          |                   |                      | Min.   | Typ. | Max. |       |
| Forward Voltage          | V <sub>F</sub>    | I <sub>F</sub> =20mA | 0.8    | 1.2  | 1.5  | V     |
|                          |                   | I <sub>F</sub> =50mA | 1.0    | 1.3  | 1.7  |       |
| Peak Wavelength          | λ <sub>p</sub>    | I <sub>F</sub> =20mA | ----   | 940  | ---- | nm    |
| Spectral Line half-width | Δλ                | I <sub>F</sub> =20mA | ----   | 45   | ---- | nm    |
| Radiant Intensity        | E <sub>e</sub>    | I <sub>F</sub> =20mA | 8      | 12   | ---- | mW/sr |
|                          |                   | I <sub>F</sub> =50mA | 20     | 45   | ---- |       |
| Reverse Current          | I <sub>R</sub>    | V <sub>R</sub> =5V   | ----   | ---- | 10   | μA    |
| Viewing Angle            | 2θ <sub>1/2</sub> | I <sub>F</sub> =20mA | ----   | 15   | ---- | deg.  |

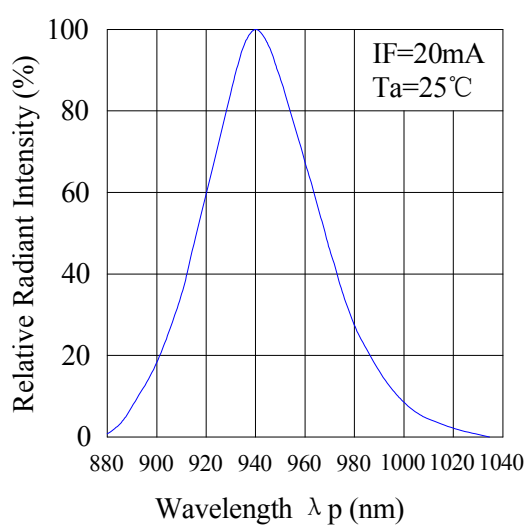


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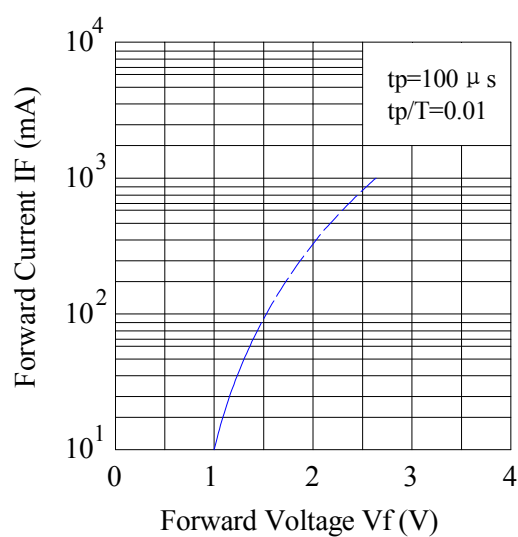
## Typical electrical/optical characteristic curves:

(25°C Ambient Temperature Unless Otherwise Noted)

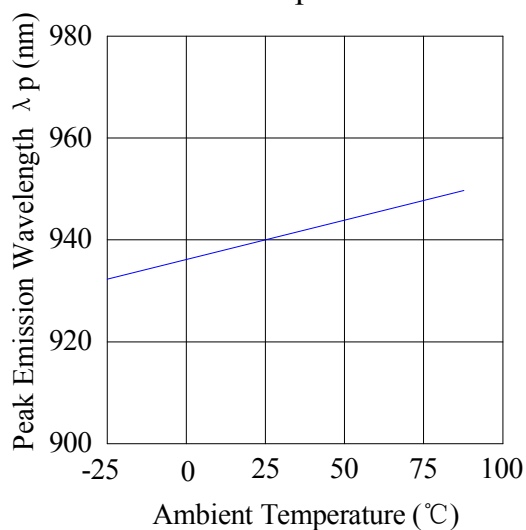
Spectral Distribution



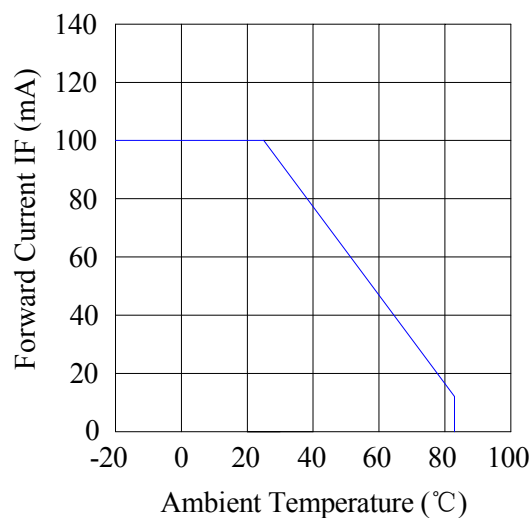
Forward Current & Forward Voltage



Peak Emission Wavelength & Ambient Temperature



Forward Current & Ambient Temperature

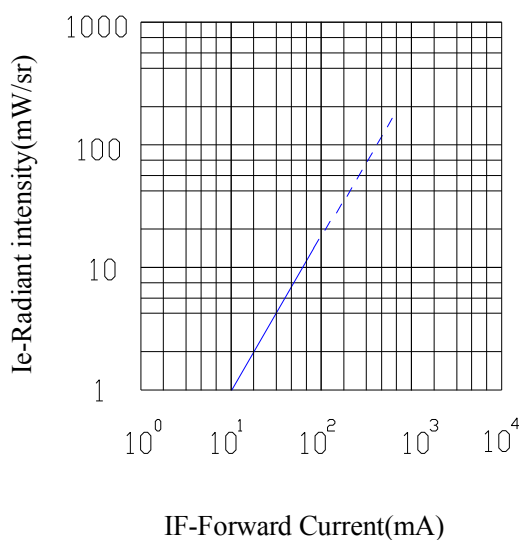


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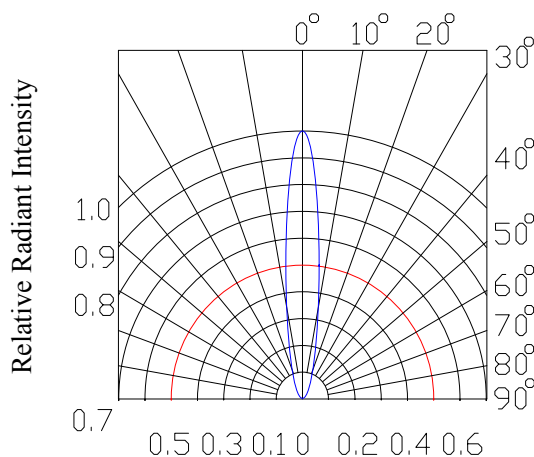
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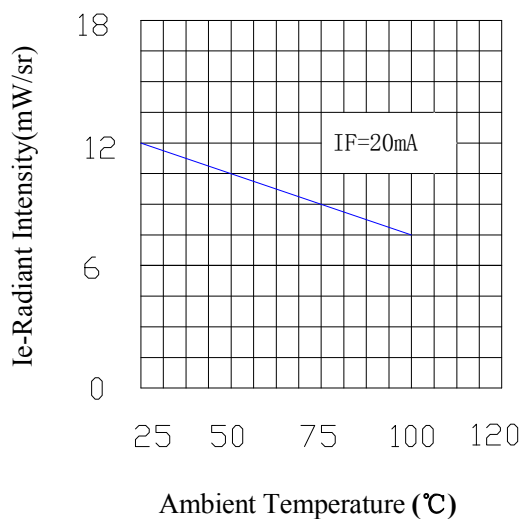
Relative Intensity &  
Forward Current



Relative Radiant Intensity &  
Angular Displacement



Relative Intensity &  
Ambient Temperature(°C)



Forward Voltage &  
Ambient Temperature(°C)

