

**L1050-66-60**

**Epoxy Lens Type Infrared Illuminator**

L1050-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency InGaAs diode chips, mounted on a metal stem TO-66 with AlN ceramics and covered with double coated clear silicone and epoxy resin. These devices are designed for high current operation with proper heat sinking to improve thermal conductive efficiency.

<Features>

- High Reliability
- Compact(TO-66) Package
- High Output Power at 1050nm

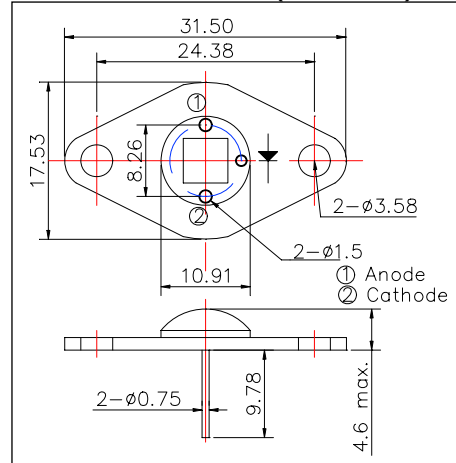
<Application>

- For IR Search Light
- For CCD Lighting

<Specifications>

1. Product Name: IR Illuminator
2. Type Number: L1050-66-60
3. Chip:
  - Chip material: InGaAs
  - Peak Wavelength: 1050nm typ.
- 4.Package
  - Type: TO-66 Stem with AlN
  - Lens: Clear Silicone and Epoxy Lens

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings[Ta=25°C] |        |                     |      |
|-----------------------------------|--------|---------------------|------|
| Item                              | Symbol | Maximum Rated Value | Unit |
| Power Dissipation                 | PD     | 7.8                 | W    |
| Forward Current                   | IF     | 1.2                 | A    |
| Reverse Voltage                   | VR     | 25                  | V    |
| Thermal Resistance                | Rthja  | 2                   | K/W  |
| Junction Temperature              | Tj     | 120                 | °C   |
| Operating Temperature             | TOPR   | -40 ~ +85           | °C   |
| Storage Temperature               | TSTG   | -40 ~ +100          | °C   |
| Soldering Temperature*            | TSOL   | 265                 | °C   |

\* Soldering condition must be completed within 3 second at 265°C.

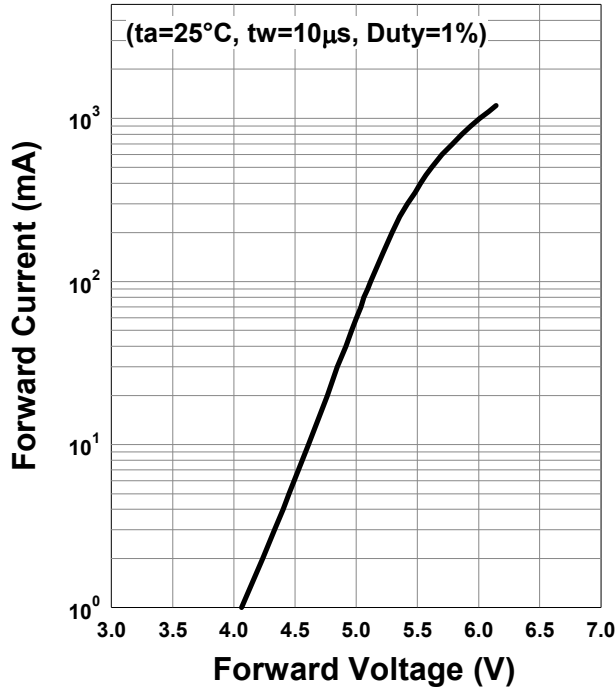
| Electro-Optical Characteristics |                  |           |         |         |         |      |
|---------------------------------|------------------|-----------|---------|---------|---------|------|
| Item                            | Symbol           | Condition | Minimum | Typical | Maximum | Unit |
| Forward Voltage                 | V <sub>F</sub>   | IF=600mA  |         | 5.7     | 6.5     | V    |
| Total Radiated Power*           | P <sub>O</sub>   | IF=600mA  |         | 80      |         | mW   |
| Peak Wavelength                 | λ <sub>P</sub>   | IF=600mA  | 1000    |         | 1100    | nm   |
| Half Width                      | Δλ               | IF=600mA  |         | 50      |         | nm   |
| Viewing Half Angle              | θ <sub>1/2</sub> | IF=100mA  |         | ± 65    |         | deg  |
| Rise Time                       | t <sub>r</sub>   | IF=600mA  |         | 80      |         | ns   |
| Fall Time                       | t <sub>f</sub>   | IF=600mA  |         | 30      |         | ns   |

\* Radiated Power is measured by G8370-85.

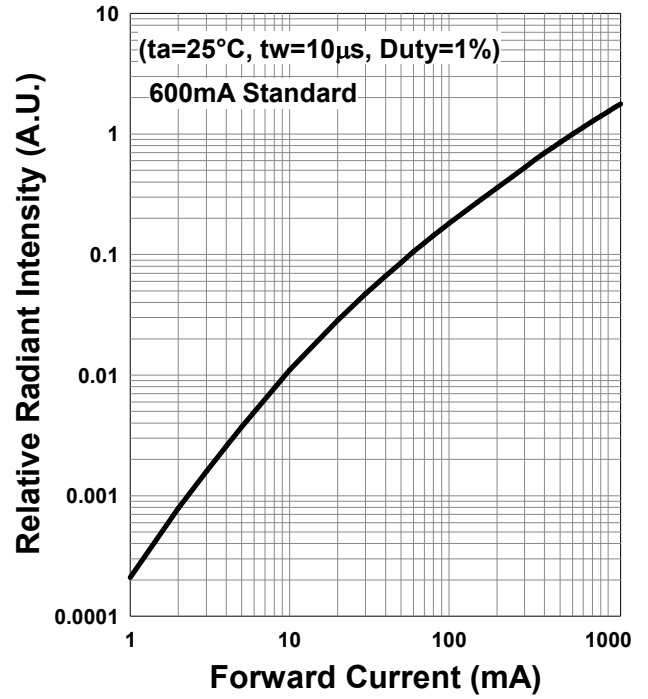


Typical Characteristic Curves

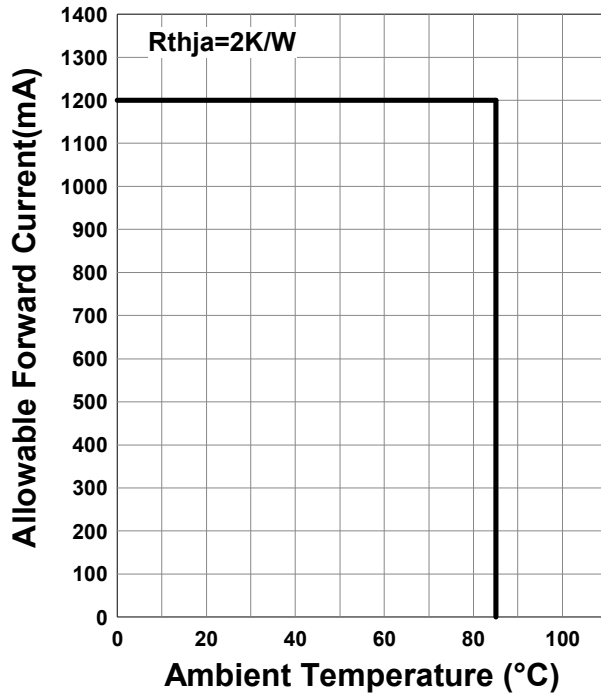
Forward Current - Forward Voltage



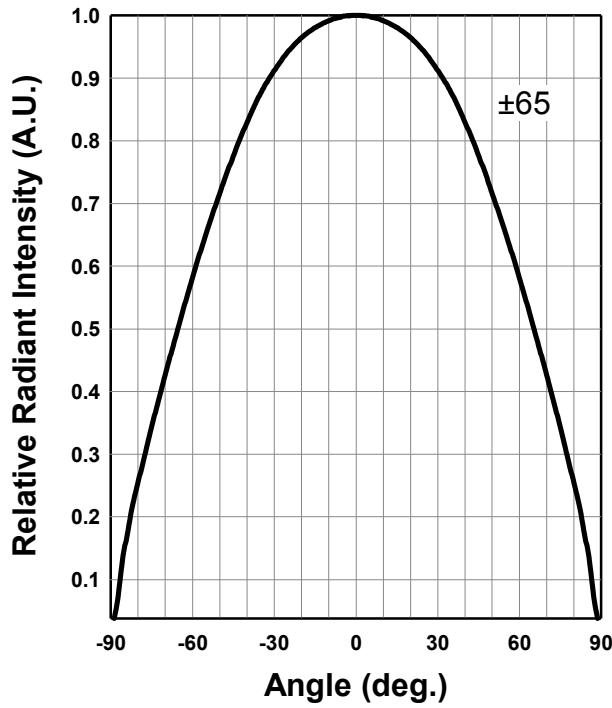
Relative Radiant Intensity - Forward Current



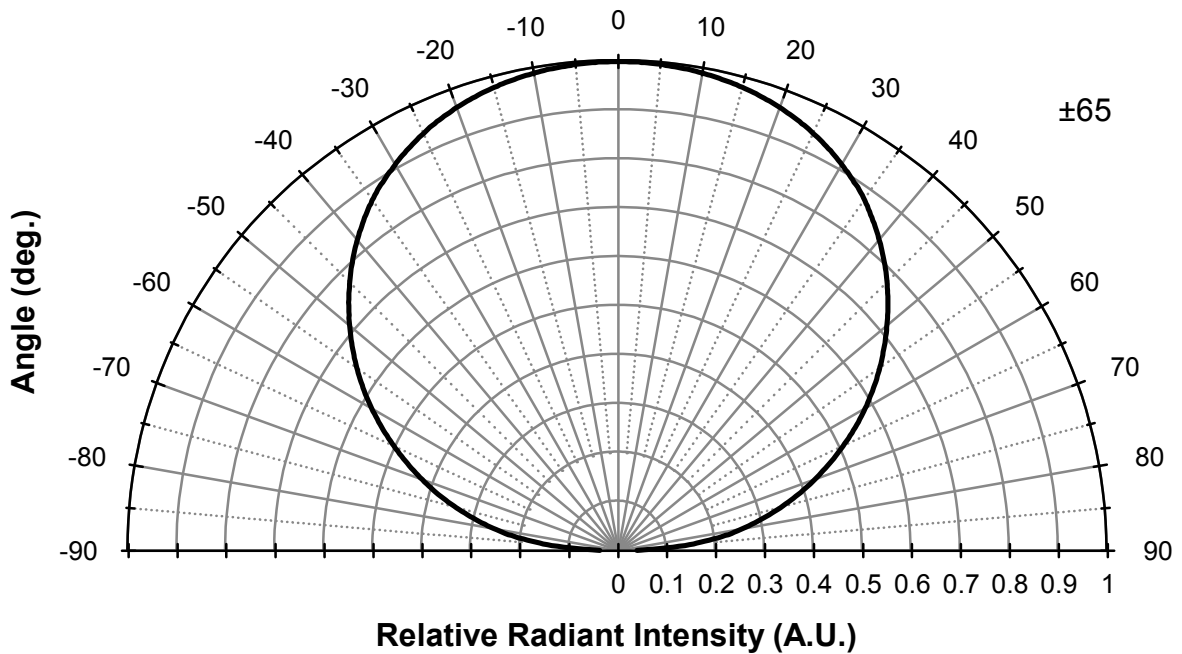
Allowable Forward Current - Ambient Temperature



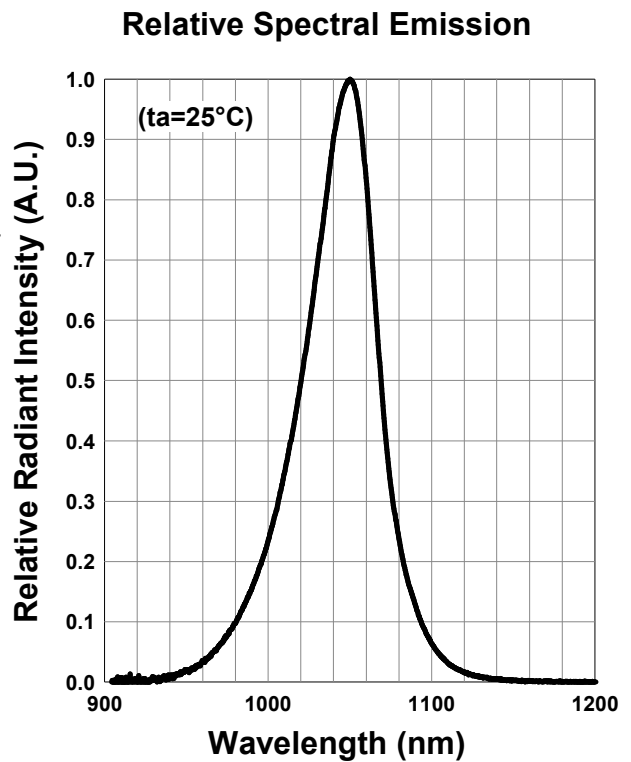
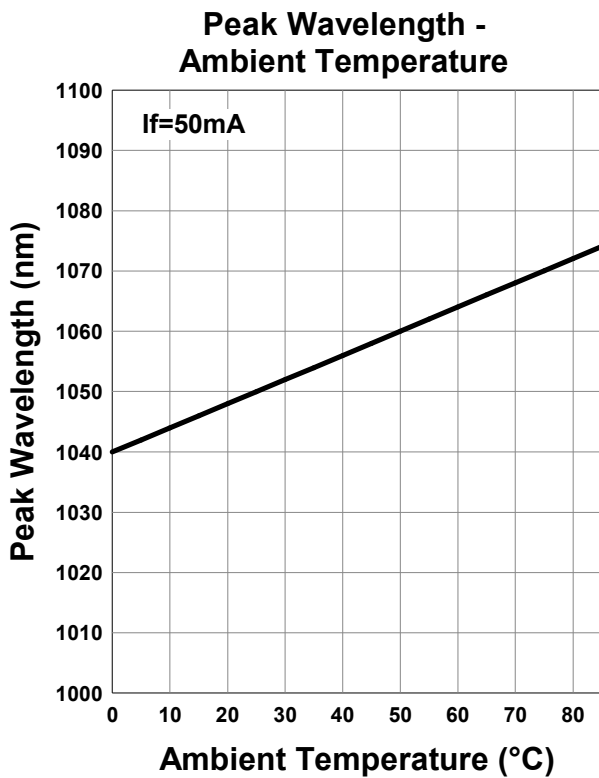
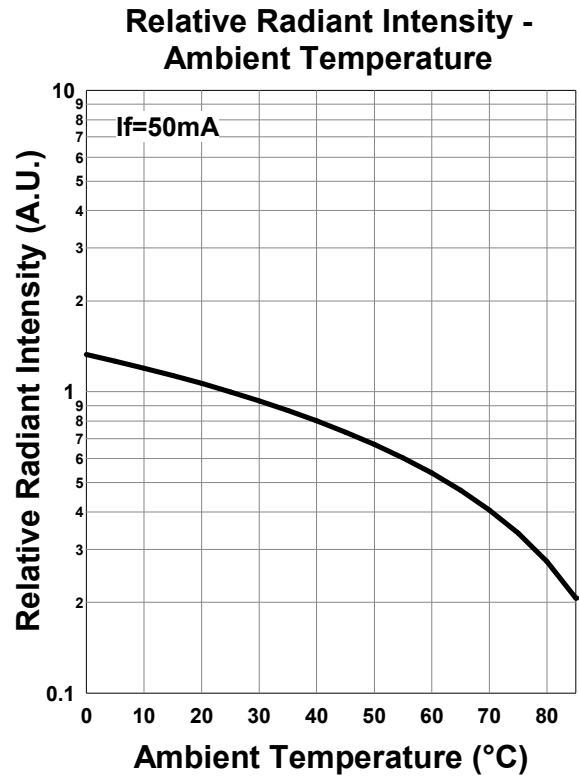
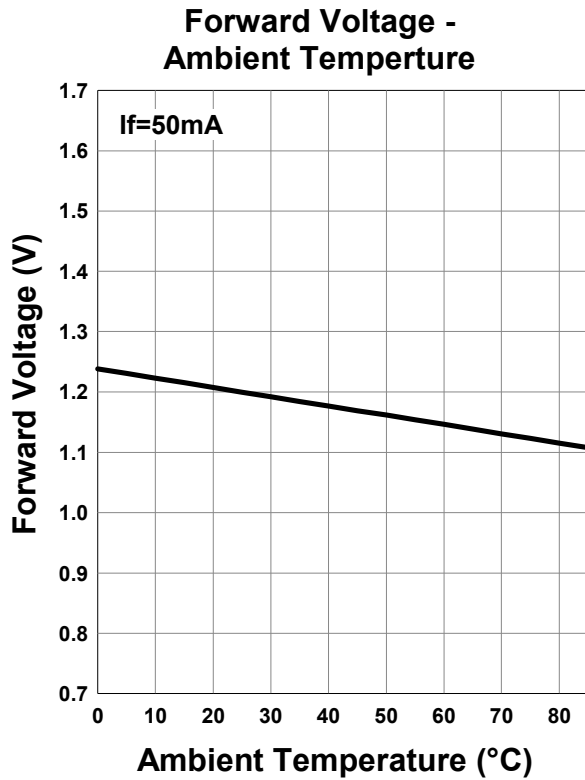
**Radiation Characteristics**



**Radiation Characteristics**



\*The data below shows the characteristics of one representative TO-66 chip.



**Disclaimer**

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

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