

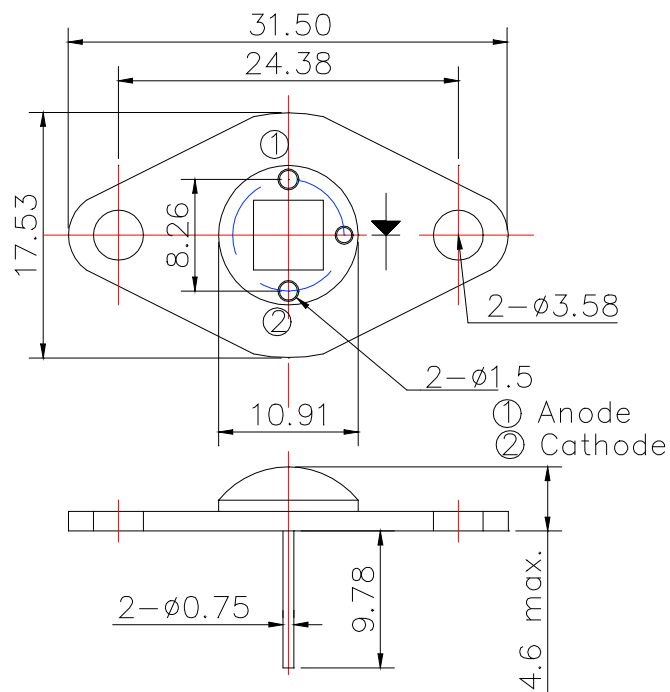
# Data Sheet

## L420-66-60

Blue illuminator

USHIO

### Outline and Internal Circuit



(Unit : mm)

### Features

- Chip Material : InGaN
- Chip Dimension : 350um \* 300um
- Number of Chips : 60pcs
- Peak Wavelength : 420nm typ.
- Stem : TO-66 stem
- Lens : Silicone and/or Epoxy resin

### Application

## Absolute Maximum Ratings (Tc=25°C)

| Item                  | Symbol | Ratings    | Unit |
|-----------------------|--------|------------|------|
| Power Dissipation     | PD     | 13.5       | W    |
| Forward Current       | IF     | 600        | mA   |
| 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: Soldering condition must be completed with 3 seconds at 265°C.

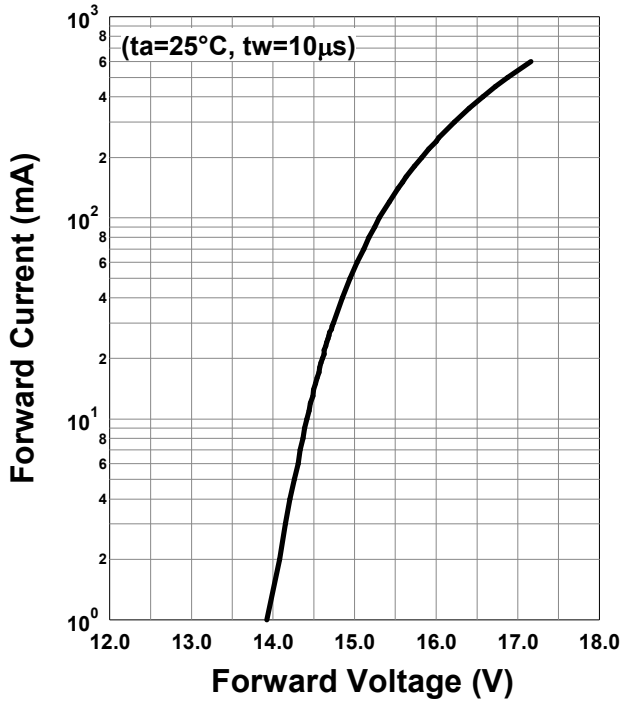
## Optical and Electrical Characteristics (Tc=25°C)

| Parameter            | Symbol | Min | Typ | Max  | Unit | Test Condition |
|----------------------|--------|-----|-----|------|------|----------------|
| Forward Voltage      | VF     |     | 16  | (22) | V    | IF=240mA       |
| Total Radiated Power | PO     |     | 700 |      | mW   | IF=240mA       |
| Luminous Flux        | ΦV     |     | 6.5 |      | lm   | IF=240mA       |
| Peak Wavelength      | λp     | 410 |     | 430  | nm   | IF=240mA       |
| Dominant Wavelength  | λD     |     | 432 |      | nm   | IF=20mA        |
| Half Width           | Δλ     |     | 16  |      | nm   | IF=240mA       |
| Viewing Half Angle   | θ1/2   |     | ±64 |      | deg. | IF=100mA       |
| Rise Time            | tr     |     | 15  |      | ns   | IF=240mA       |
| Fall Time            | tf     |     | 15  |      | ns   | IF=240mA       |

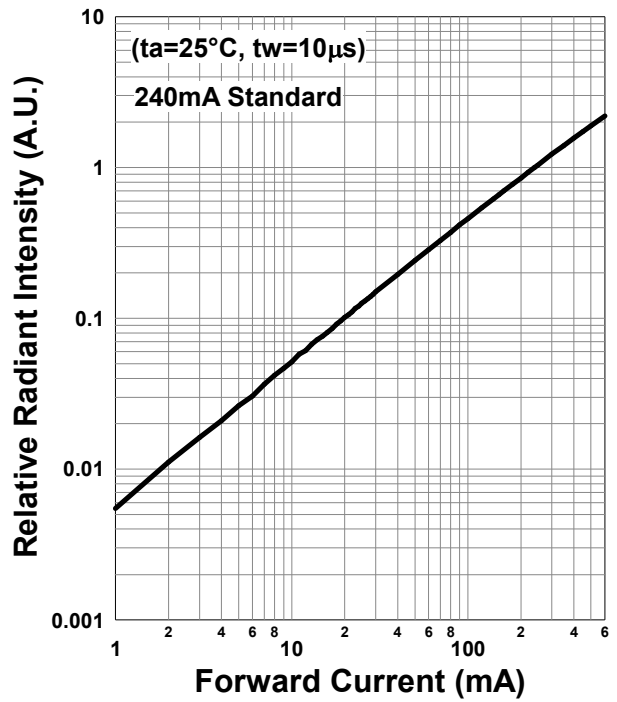
‡ Radiated Power is measured by S3584-08.

## Typical Characteristic Curves

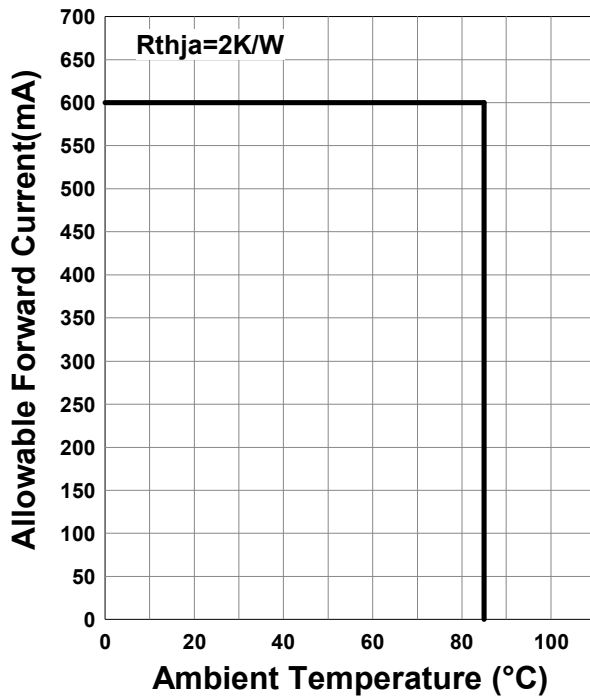
### Forward Current - Forward Voltage



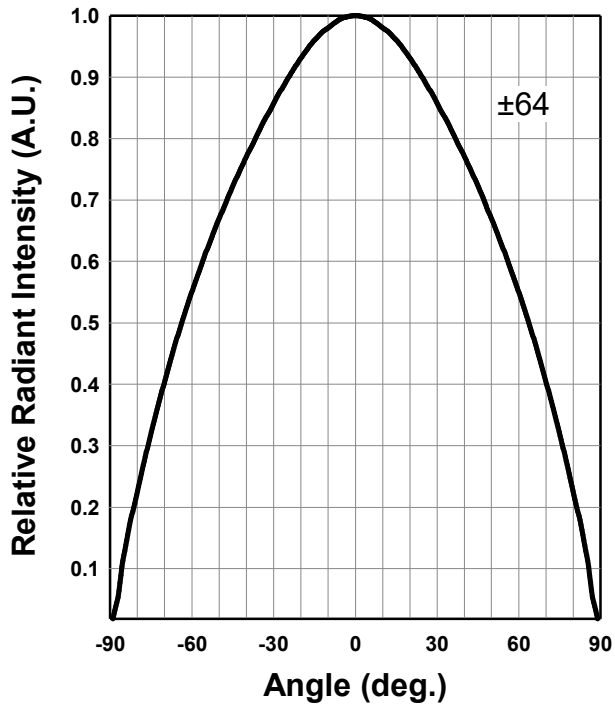
### Relative Radiant Intensity - Forward Current



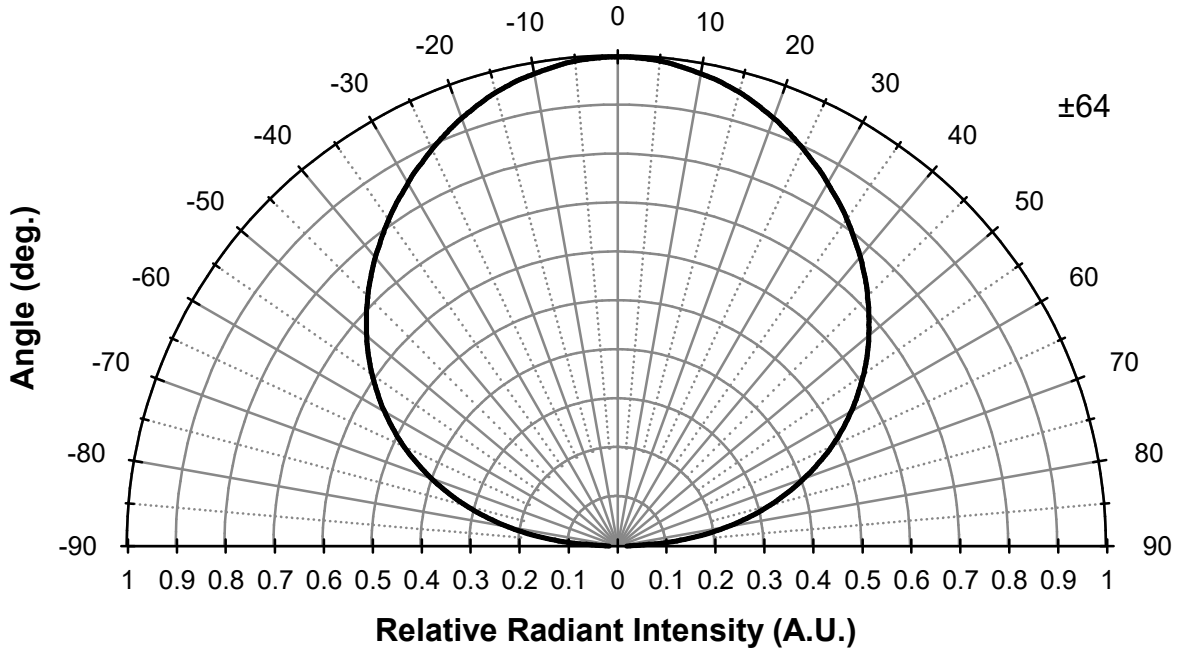
### Allowable Forward Current - Ambient Temperature



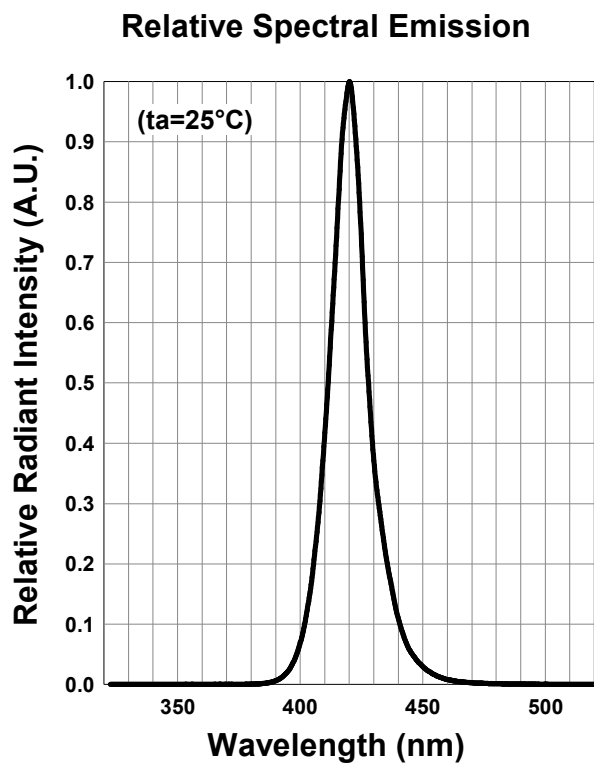
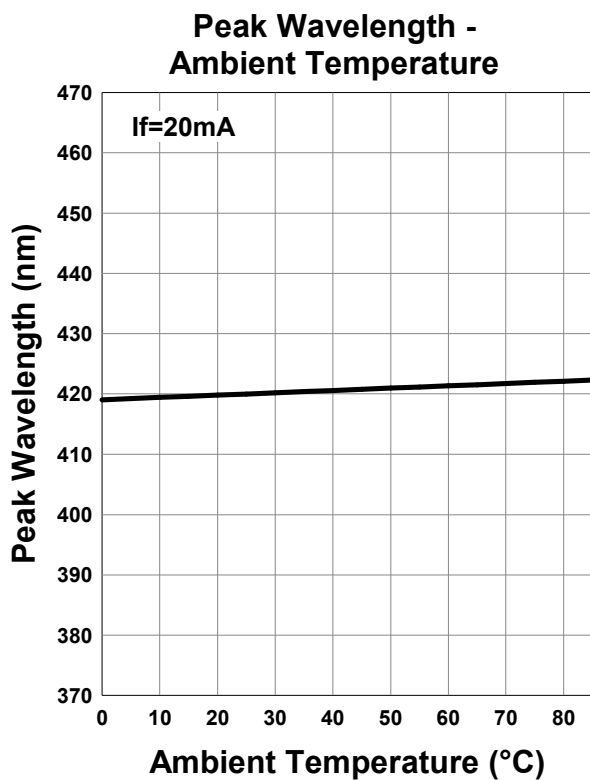
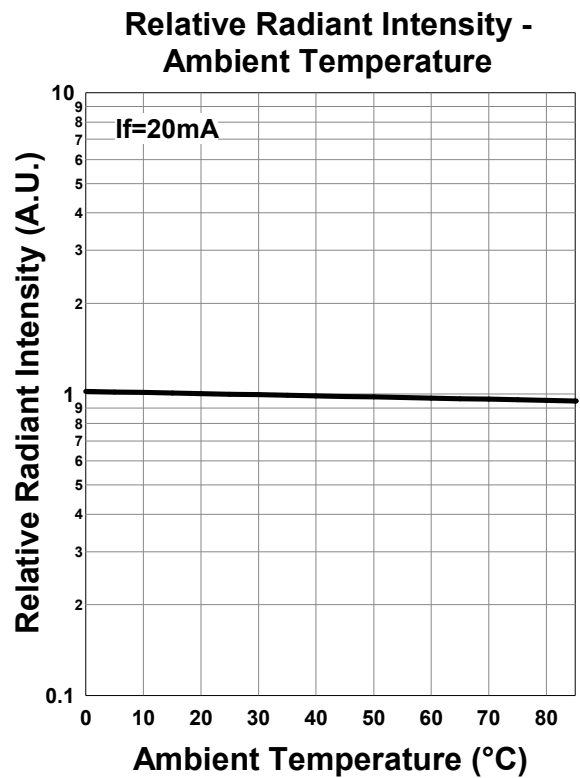
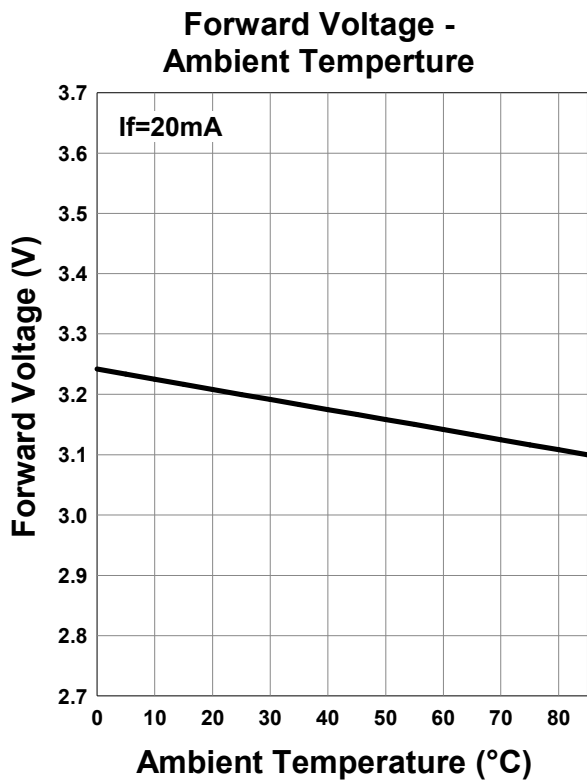
**Radiation Characteristics**



**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.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.



\*Effective July 2016, Ushio Epitex Inc. is now USHIO OPTO SEMICONDUCTORS, INC.