

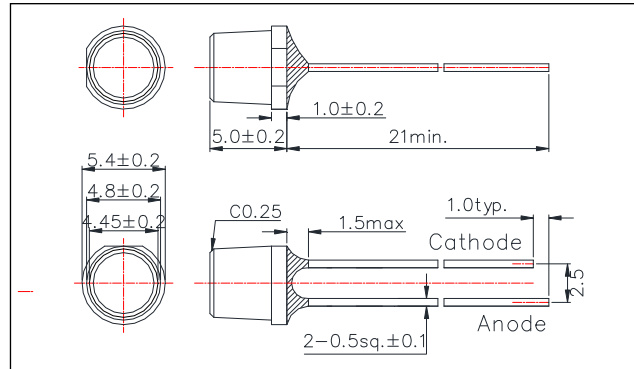
L418R-05(+/-5nm)
UV LED Lamp

PRELIMINARY

<Specifications>

- Chip Material: InGaN
- Chip Dimension: 350um x 300um
- Number of Chips: 1pcs
- Peak Wavelength: 418nm typ.
- Package Type: Φ5mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: UV Resin

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings[Tc=25°C] | | | |
|-----------------------------------|--------|---------------------|------|
| Item | Symbol | Maximum Rated Value | Unit |
| Power Dissipation | PD | 220 | W |
| Forward Current | IF | 50 | mA |
| Pulse Forward Current* | IFP | 100 | mA |
| Reverse Voltage | VR | 5 | V |
| Thermal Resistance | Rthja | 230 | K/W |
| Junction Temperature | Tj | 120 | °C |
| Operating Temperature | TOPR | -20 ~ +100 | °C |
| Storage Temperature | TSTG | -20 ~ +100 | °C |
| Soldering Temperature** | TSOL | 265 | °C |

* Duty 1% and Pulse Width=10us.

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

| Electro-Optical Characteristics[Tc=25°C] | | | | | | |
|--|--------|-----------|-----|-----|-----|-------|
| Item | Symbol | Condition | Min | Typ | Max | Unit |
| Forward Voltage | VF | IF=20mA | | 3.2 | 4.3 | V |
| | VFP | IPF=100mA | | 4.2 | | |
| Total Radiated Power* | PO | IF=20mA | | 21 | | mW |
| | | IPF=100mA | | 80 | | |
| Radiant Intensity** | IE | IF=20mA | | 13 | | mW/sr |
| | | IPF=100mA | | 49 | | |
| Luminous Flux | Φv | IF=20mA | | 180 | | mlm |
| Peak Wavelength | λP | IF=20mA | 413 | | 423 | nm |
| Dominant Wavelength | λD | IF=20mA | | 430 | | nm |
| Half Width | Δλ | IF=20mA | | 16 | | nm |
| Viewing Half Angle | θ1/2 | IF=20mA | | ±47 | | deg |
| Rise Time | tr | IF=20mA | | 15 | | ns |
| Fall Time | tf | IF=20mA | | 15 | | ns |

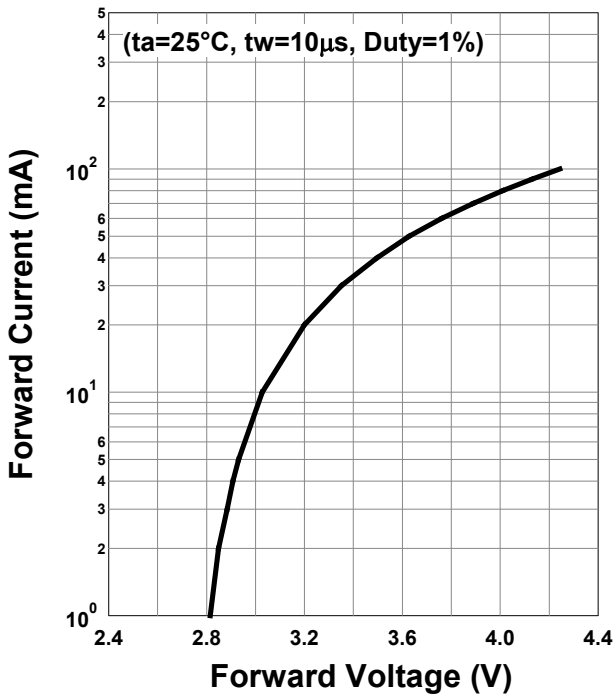
* Measured by S3584-08

** Measured by CIE127-2007 Condition B

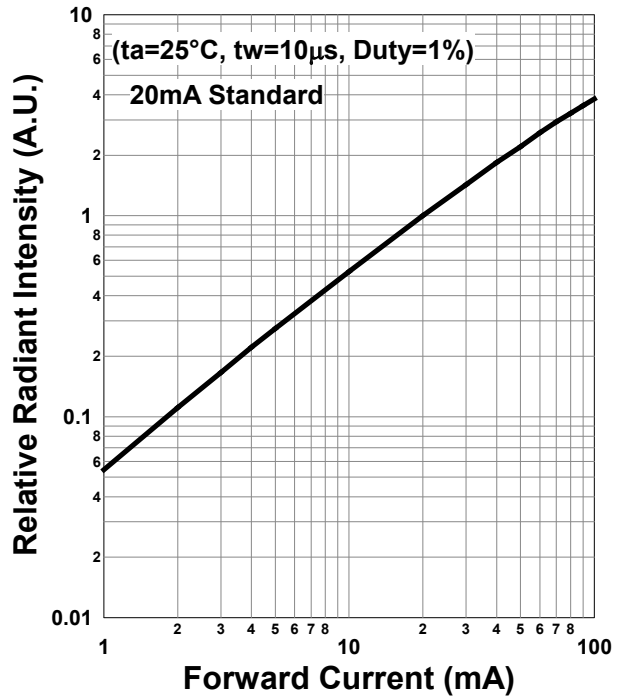


Typical Characteristic Curves

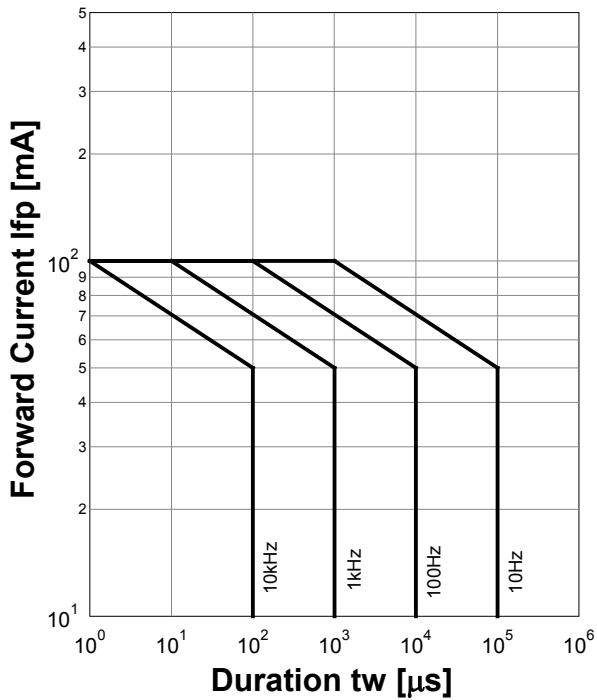
Forward Current - Forward Voltage



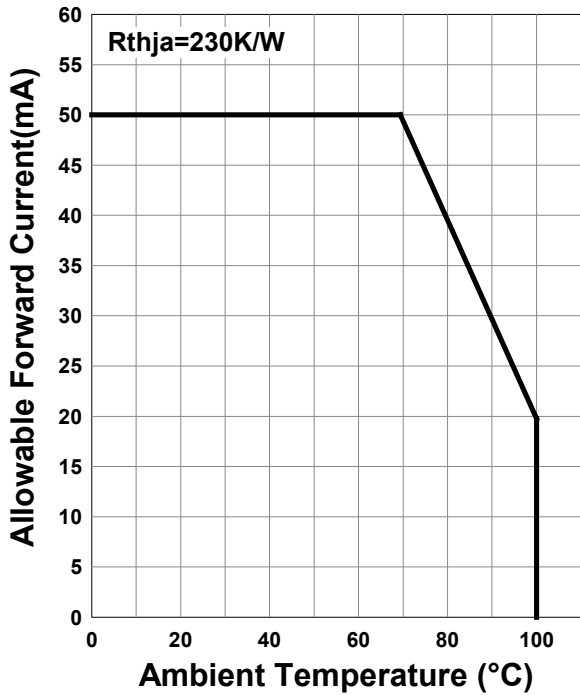
Relative Radiant Intensity - Forward Current

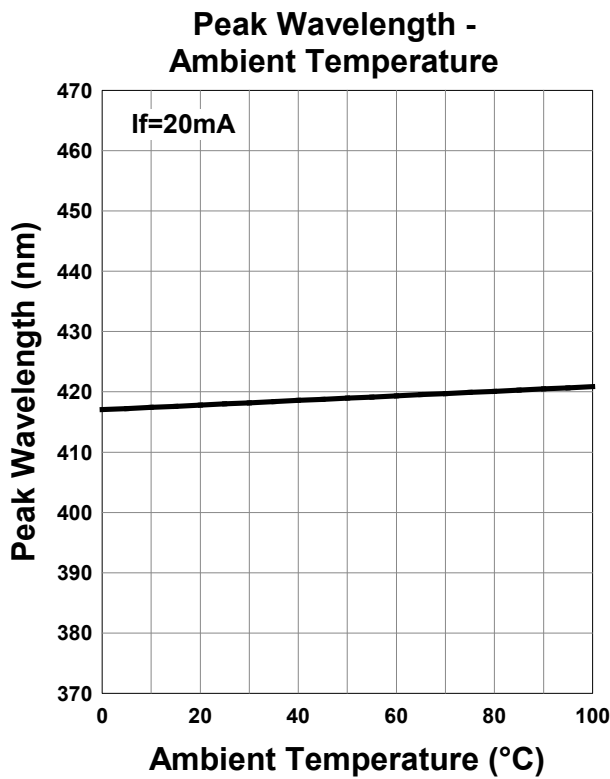
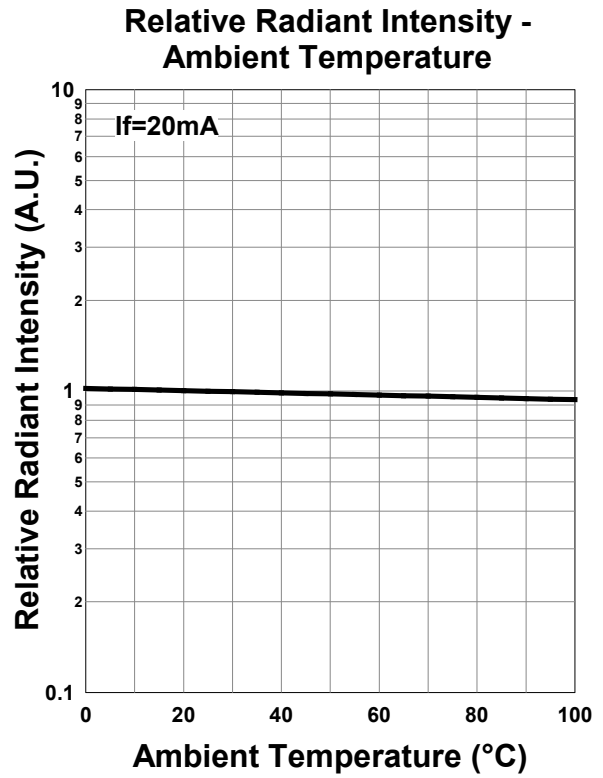
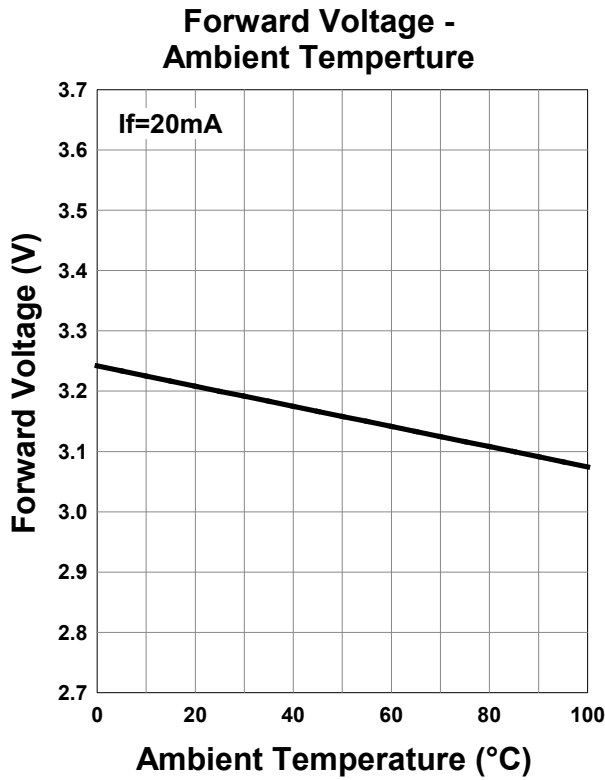


Forward Current - Pulse Duration

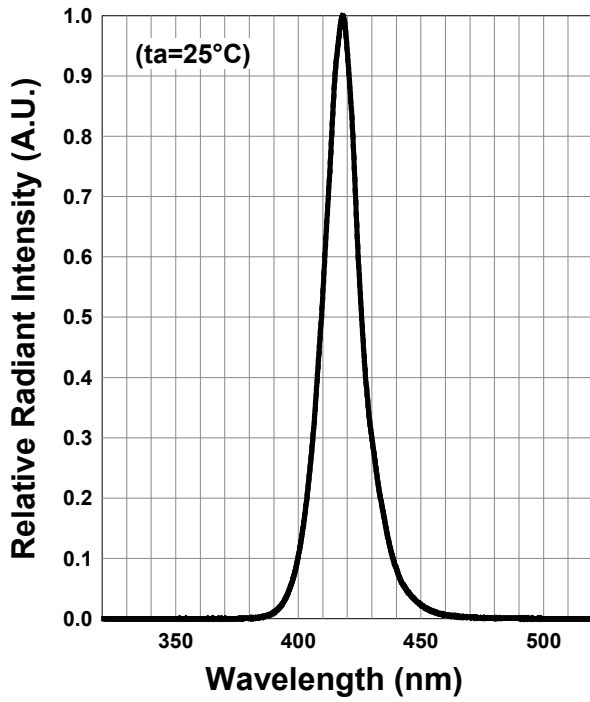


Allowable Forward Current - Ambient Temperature

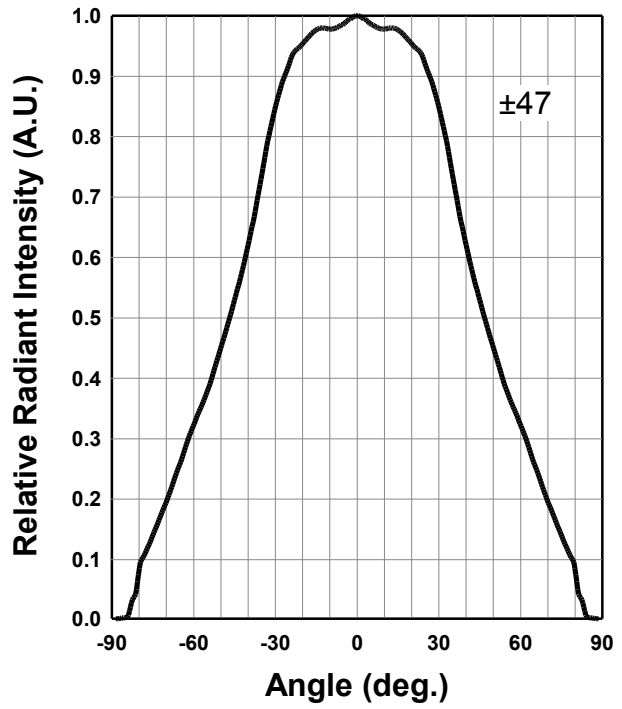




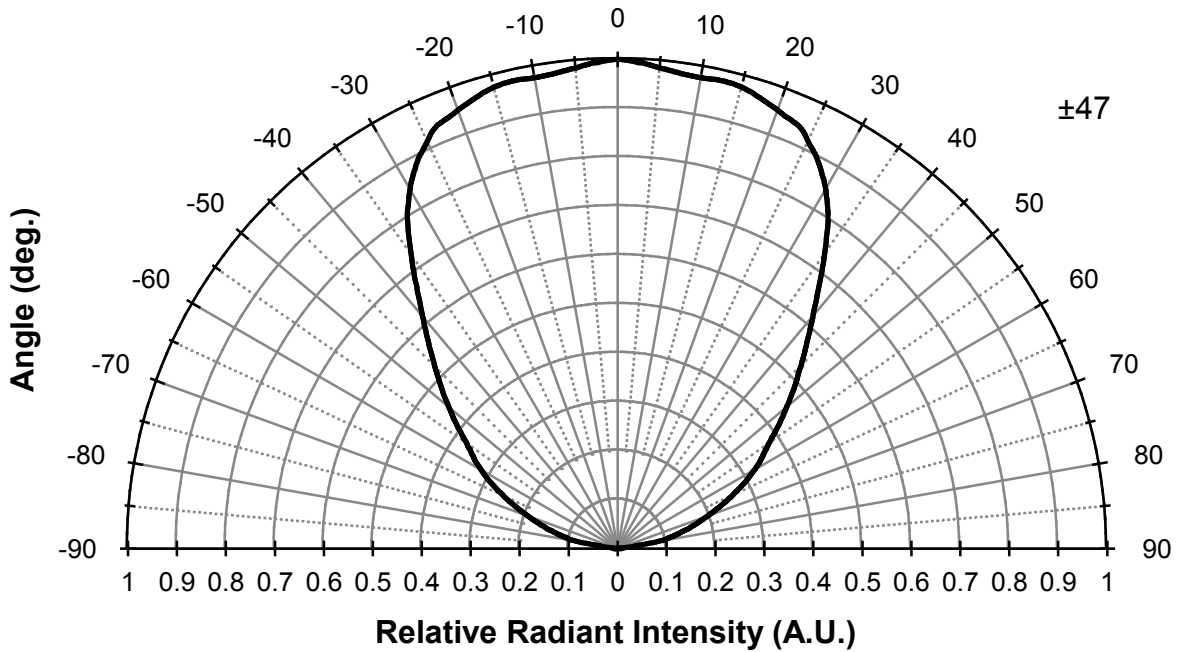
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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.

2018.01