

Absolute Maximum Ratings

Ta = 25°C

| | | Blue | Blue Green | Green | Yellow | Red | Units |
|----------------------|------|----------|------------|----------|----------|----------|-------|
| | | UB | UC | UG | UY | UR | |
| Power Dissipation | Pd | 78 | 78 | 78 | 87 | 87 | mW |
| Forward Current | IF | 20 | 20 | 20 | 30 | 30 | mA |
| Peak Forward Current | IFM | 48 | 48 | 48 | 100 | 100 | mA |
| Reverse Voltage | VR | 5 | 5 | 5 | 5 | 5 | V |
| Operating Temp. | Topr | -40~+85 | -40~+85 | -40~+85 | -40~+85 | -40~+85 | °C |
| Storage Temp. | Tstg | -40~+100 | -40~+100 | -40~+100 | -40~+100 | -40~+100 | °C |
| Derating * | ΔIF | 0.28 | 0.28 | 0.28 | 0.43 | 0.43 | mA/°C |

* The current derating for operation applies when temperature is above 25°C.

• IFM Condition : tw ≤ 1ms, Duty ≤ 1/20 (UY, UR : Duty ≤ 1/10)

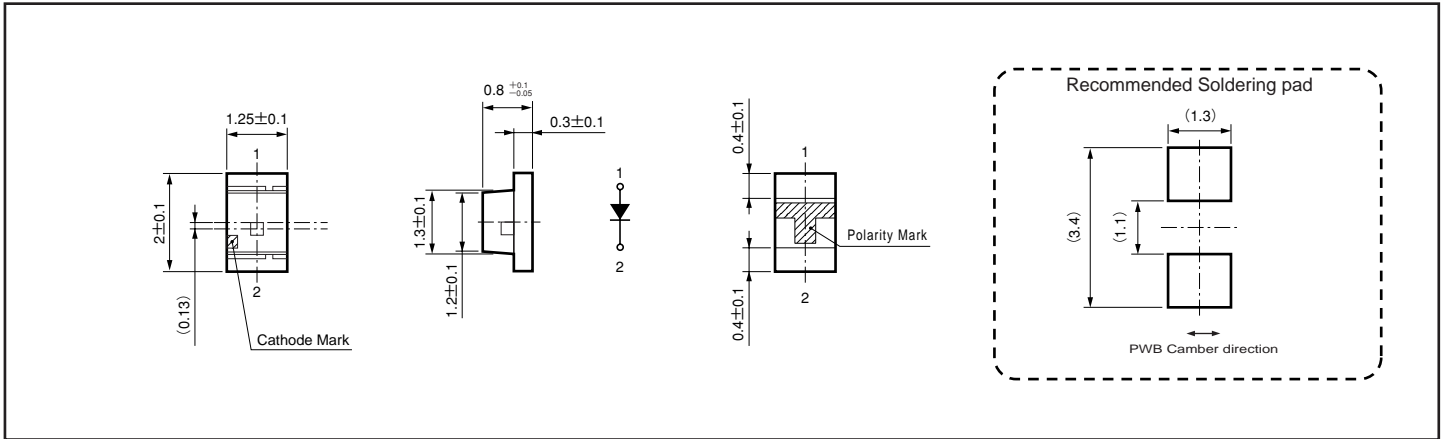
Electro-Optical Characteristics

Ta = 25°C

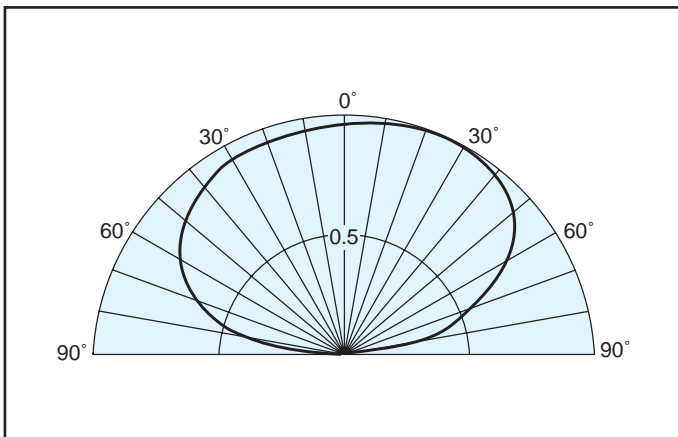
| Part No. | Chip | | Lens Color | Luminous Intensity | | | | Wavelength | | | | Forward Voltage | | | Reverse Current | |
|----------|----------|---------------|-------------|--------------------|-----|----|-----|------------|----|-----|-----|-----------------|-----|-----|-----------------|--|
| | Material | Emitted Color | | Iv | | | λ d | λ p | | Δλ | | VF | | | IR | |
| | | | | MIN | TYP | IF | TYP | TYP | IF | TYP | MAX | IF | MAX | VR | | |
| UB1112H | InGaN | Blue | Milky White | 17 | 34 | 10 | 470 | 465 | 26 | 10 | 3.4 | 3.9 | 10 | 100 | 5 | |
| UC1112H | InGaN | Blue Green | | 80 | 160 | 10 | 508 | 502 | 30 | 10 | 3.4 | 3.9 | 10 | 100 | 5 | |
| UG1112H | InGaN | Green | | 96 | 160 | 10 | 530 | 522 | 35 | 10 | 3.4 | 3.9 | 10 | 100 | 5 | |
| UY1112H | AlGaInP | Yellow | | 50 | 100 | 20 | 590 | 592 | 18 | 20 | 2.2 | 2.8 | 20 | 100 | 5 | |
| UR1112H | AlGaInP | Red | | 50 | 100 | 20 | 630 | 641 | 18 | 20 | 2.2 | 2.8 | 20 | 100 | 5 | |
| Units | | | mcd | mcd | mA | nm | nm | nm | mA | V | V | mA | μA | V | | |

Package Dimensions

Unit : mm

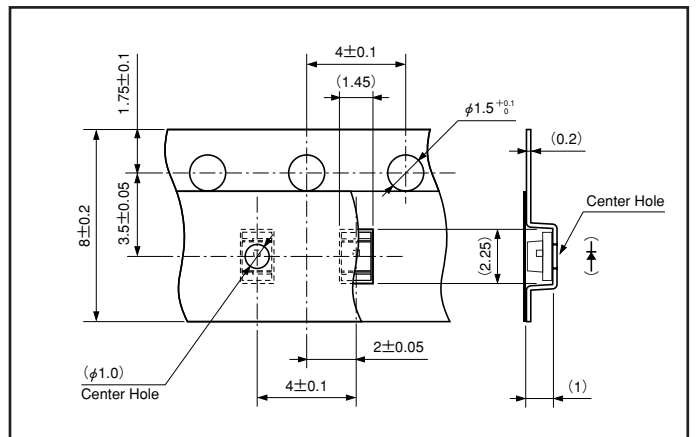


Spatial Distribution



Taping Specification

Unit : mm



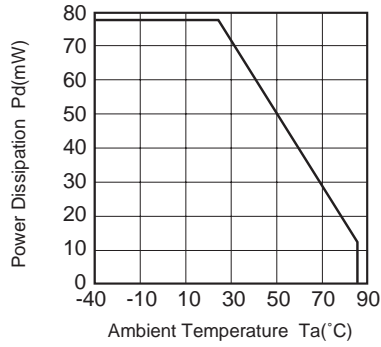
* Quantity 4,000 pcs/Reel



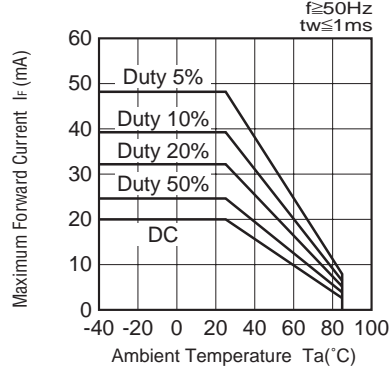
ULTRA HIGH BRIGHTNESS TYPE SURFACE MOUNT LED

UC1112H

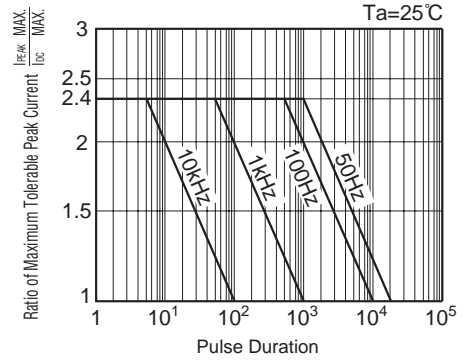
Power Dissipation vs. Ambient Temperature



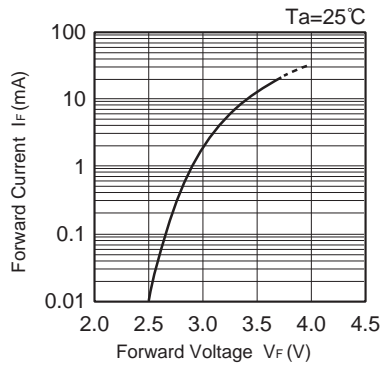
Ambient Temperature vs. Maximum Forward Current



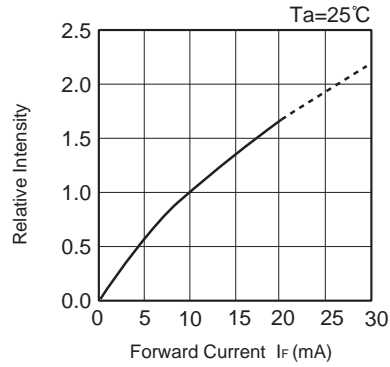
Pulse Duration vs. Maximum Tolerable Peak Current



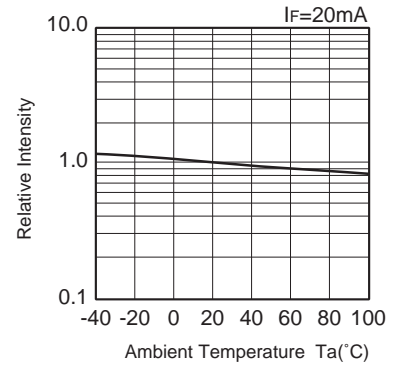
Forward Voltage vs. Forward Current



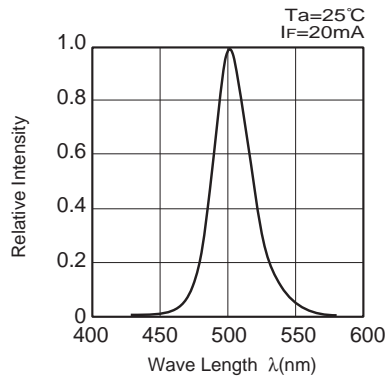
Forward Current vs. Relative Intensity



Ambient Temperature vs. Relative Intensity



Spectral Distribution

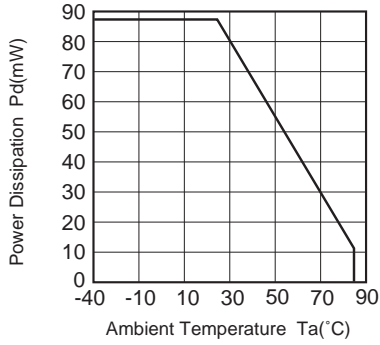




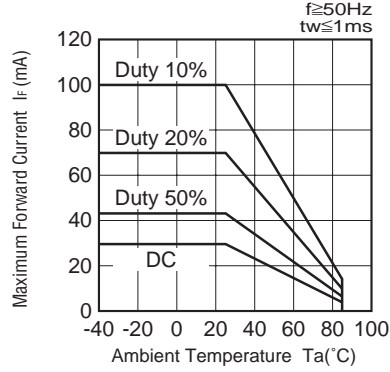
ULTRA HIGH BRIGHTNESS TYPE SURFACE MOUNT LED

UY1112H

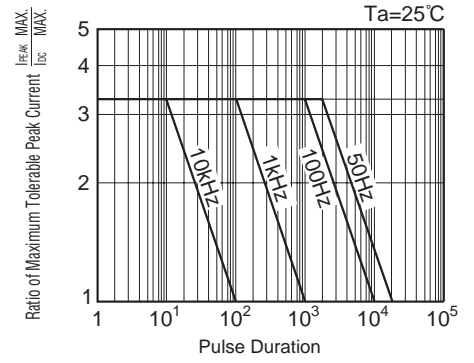
Power Dissipation vs. Ambient Temperature



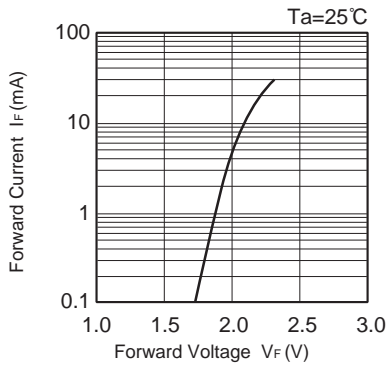
Ambient Temperature vs. Maximum Forward Current



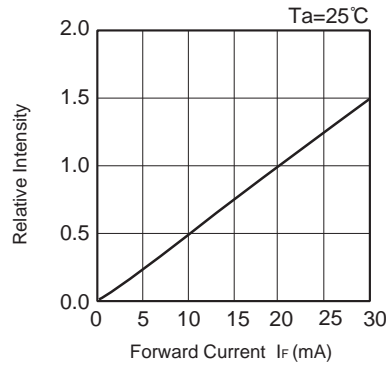
Pulse Duration vs. Maximum Tolerable Peak Current



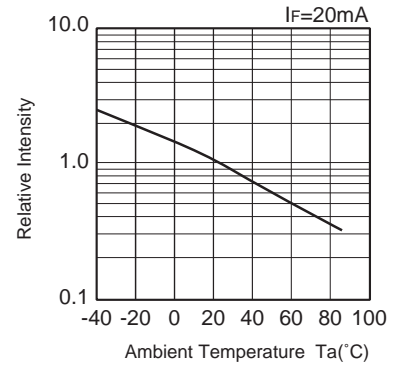
Forward Voltage vs. Forward Current



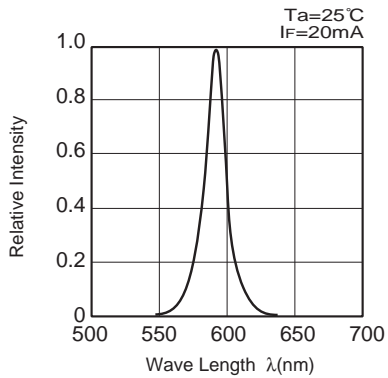
Forward Current vs. Relative Intensity



Ambient Temperature vs. Relative Intensity



Spectral Distribution

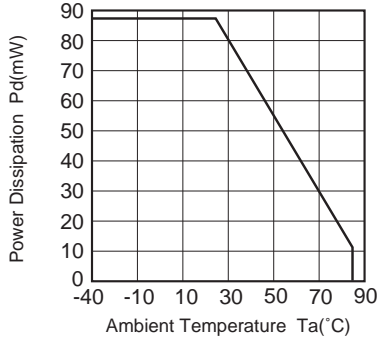




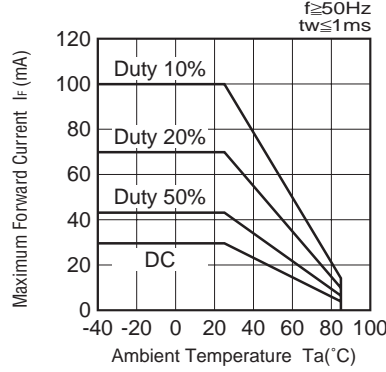
ULTRA HIGH BRIGHTNESS TYPE SURFACE MOUNT LED

UR112H

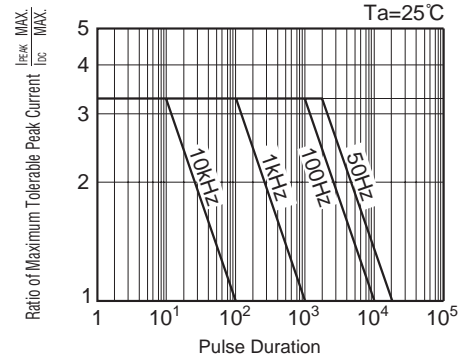
Power Dissipation vs. Ambient Temperature



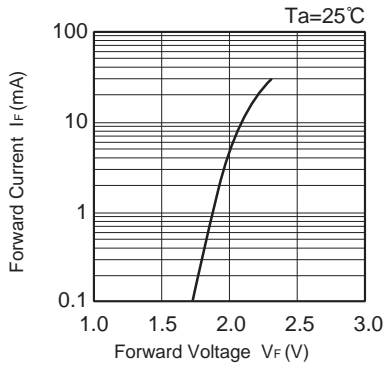
Ambient Temperature vs. Maximum Forward Current



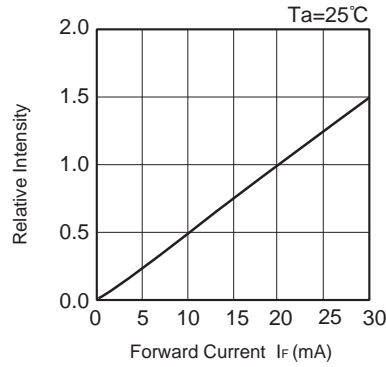
Pulse Duration vs. Maximum Tolerable Peak Current



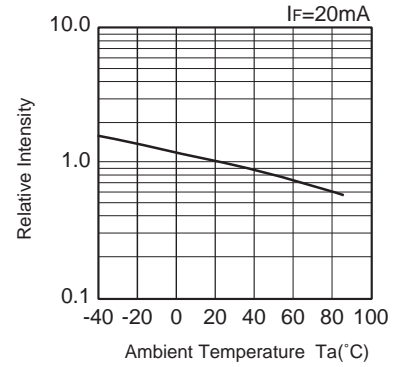
Forward Voltage vs. Forward Current



Forward Current vs. Relative Intensity



Ambient Temperature vs. Relative Intensity



Spectral Distribution

