

R81-110GWS

| | |
|----------------------------------------------|--------------------------------------------------------------------|
| 1. Color | Infrared |
| 2. Material | AlGaAs / Ge |
| 3. Electrode | N side (cathode) : Au / P side (anode) : Au |
| 4. Electrode pattern | (Figure 1) |
| 5. Chip size | 1080 μ m \times 1080 μ m \times 190 μ m (Figure 1) |
| 6. Electro-Optical characteristics (Ta=25°C) | (Table 1) |
| 7. Absolute maximum rating | (Table 2, Figure 2) |
| 8. Characteristic curves | (Figure 3~9) |
| 9. Features | |
| - Ultra high power | |

Figure 1. Electrode pattern and Chip size (Unit : μ m)

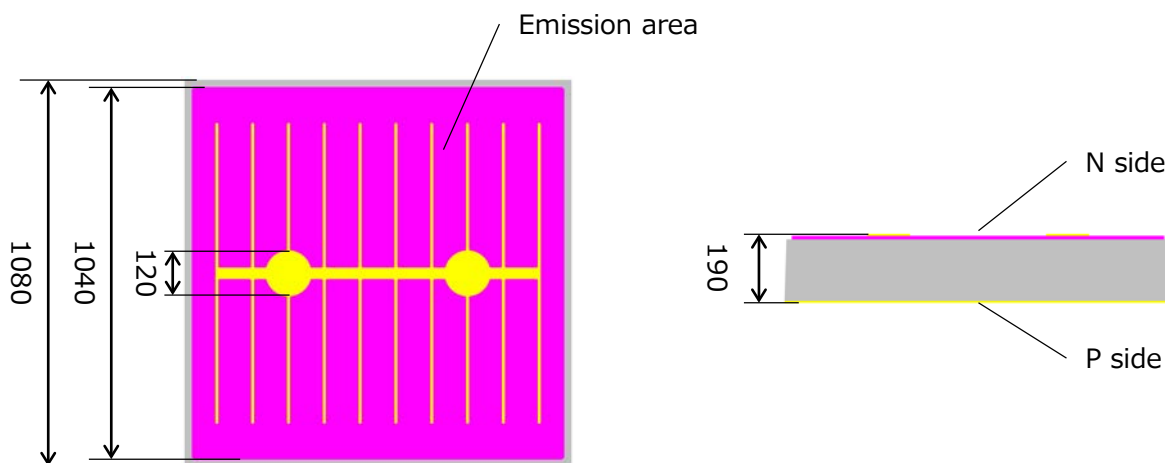


Table 1. Electro-Optical characteristics (Ta=25°C)

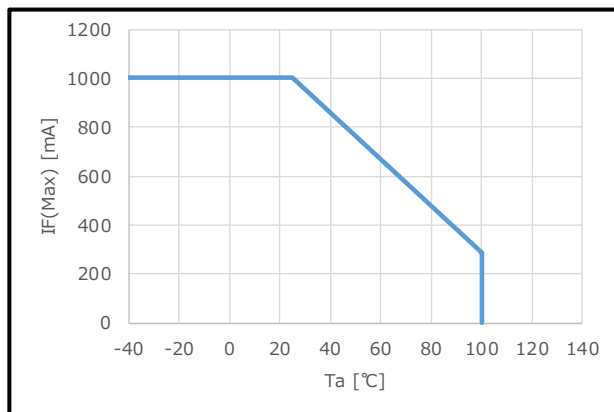
| Parameters | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-----------------|-------------|-----------|------|------|-------|---------|
| Power* | Po | IF=1A | 600 | 700 | 1,000 | mW |
| Forward Voltage | VF | IF=1A | 2.8 | 3.4 | 4.0 | V |
| Peak Wavelength | λ_p | IF=100mA | 780 | 810 | 840 | nm |
| Reverse Current | IR | VR=5V | — | — | 10 | μ A |

* Power : Measurement at RESONAC PHOTONICS.

Table 2. Absolute maximum rating

| Item | Symbol | Rating | Unit |
|----------------------|--------|--------|------|
| Forward Current | IF | 1000 | mA |
| Reverse Voltage | VR | 5 | V |
| Junction Temperature | Tj | 130 | °C |

Figure 2. Ta-Absolute maximum rated current



RESONAC PHOTONICS' standard condition : LED chip mounted on TO-46 gold header, without resin coating.

* The absolute Maximum Rating means that there is a possibility to break down if exceeded momentarily, and does not guarantee to use on this condition considering reliability.

* You should establish the absolute Maximum Ratings of device after packaging under your responsibility, as those largely depend on the design of package and packaging condition.

The information contained herein is believed to be reliable.

However, no representations, guaranties or warranties of any kind are made as to accuracy and suitability of the Product for particular applications or the results of its use.

RESONAC PHOTONICS reserves the right to introduce changes without notice.

Characteristic curves (TO-46 stem without resin)

Figure 3. IF-Po (Ta=25°C)

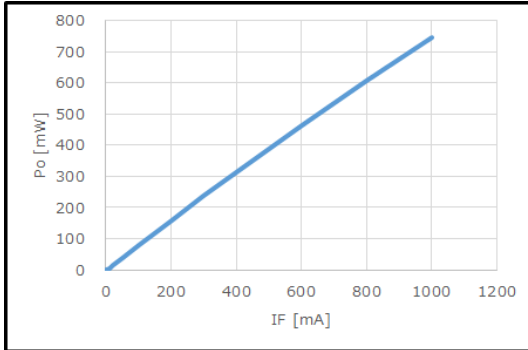


Figure 7. Ta-Relative Po

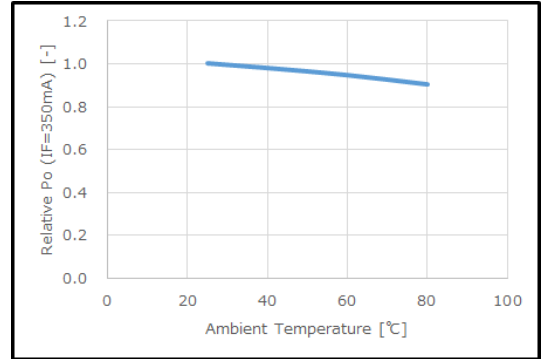


Figure 4. VF-IF (Ta=25°C)

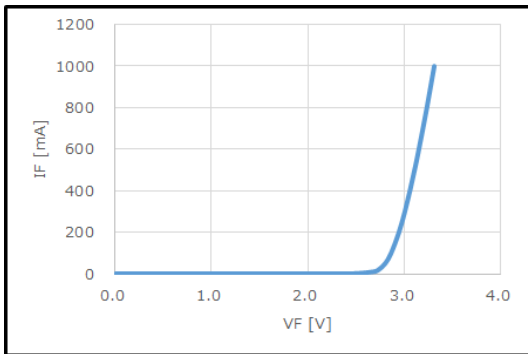


Figure 8. Ta-VF

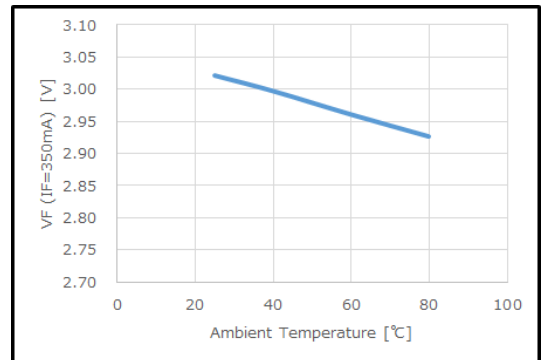


Figure 5. Emission spectrum (Ta=25°C)

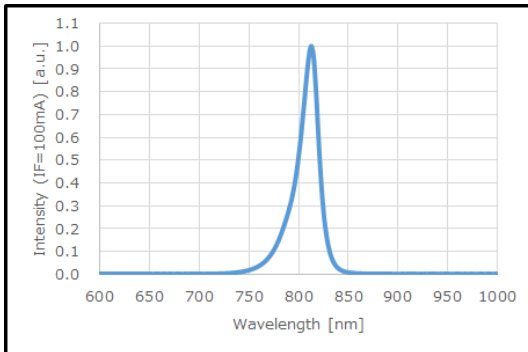


Figure 9. Ta-λp

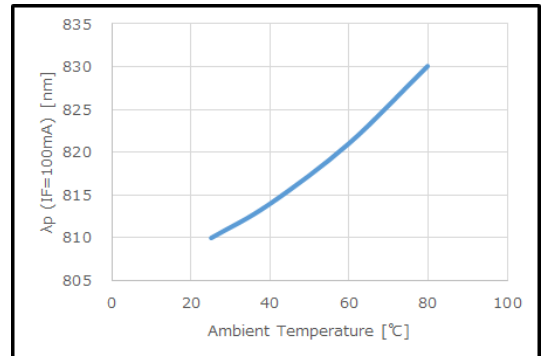
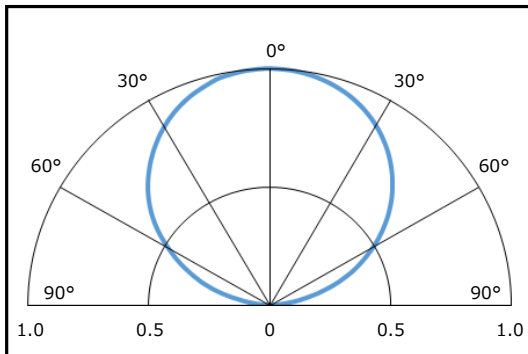


Figure 6. Emission distribution (Ta=25°C)



The data on this page are examples measured at RESONAC PHOTONICS, and they are not guaranteed.