

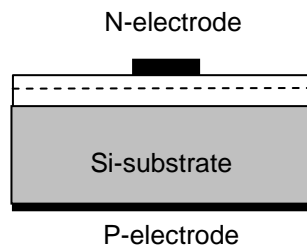
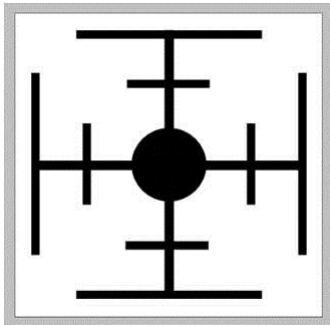
> Mechanical Specification:

(1) Dimension

- Chip size: 20 mil x 20 mil (508±25 μm x 508±25 μm)
- Thickness: 6.7 mil (170±25 μm)
- N bonding pad: 4.3 mil (110±10 μm)

(2) Metallization

- Topside N electrode : Au alloy
- Backside P electrode: Au alloy



Features:

- High radiant flux
- Thin film structure
- Vertical electrode
- High driving current

Applications:

- Automotive
- Data Communication
- Surveillance

> Electro-optical Characteristics at 25°C:

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit | |
|--------------------------------|--------|------------|------------|------|------|------|----|
| Forward Voltage | Vf1 | If = 10μA | 0.8 | - | - | V | |
| | Vf2 | If = 250mA | - | 1.6 | 1.9 | V | |
| Reverse Current | Ir | Vr = 10V | - | - | 5.0 | μA | |
| Peak Wavelength ⁽¹⁾ | λp | If = 250mA | 925 | 940 | 955 | nm | |
| Spectra Half-width | Δλ | If = 250mA | - | 47 | - | nm | |
| Radiant flux ⁽²⁾⁽³⁾ | Po | H7 | If = 250mA | 80 | - | - | mW |
| | | H8 | | 95 | - | - | |
| | | H9 | | 110 | - | - | |

Note:

(1) Basically, the wavelength span is 30nm; however, customers' special requirements are also welcome.

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(3) Radiant flux is measured by EPISTAR's equipment on bare chips.

> Absolute Maximum Ratings:

| Parameter | Symbol | Condition | Rating | Unit |
|------------------------------|--------|-----------------------------|-------------|------|
| Forward DC Current | If | Ta = 25°C | ≤ 300 | mA |
| Reverse Voltage | Vr | Ta = 25°C | ≤ 10 | V |
| Junction Temperature | Tj | - | ≤ 115 | °C |
| Storage Temperature | Tstg | Chip | -40 ~ +85 | °C |
| | | Chip-on-tape/storage | 5 ~ 35 | °C |
| | | Chip-on-tape/transportation | -20 ~ +65 | °C |
| Temperature during Packaging | - | - | 280(<10sec) | °C |

Note: Maximum ratings are package dependent. The above maximum ratings were determined using a Metal Core Printed Circuit Board (MCPCB) without an encapsulant. Stresses in excess of the absolute maximum ratings such as forward current and junction temperature may cause damage to the LED.

> Characteristic Curves:

Fig.1 – Relative Radiant Flux vs. Forward Current

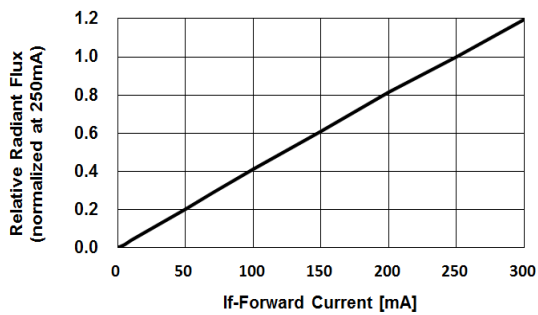


Fig.2 – Forward Current vs. Forward Voltage

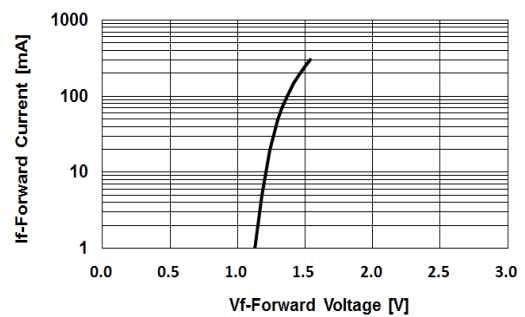


Fig.3 – Relative Radiant Flux (@250mA) vs. Ambient Temperature

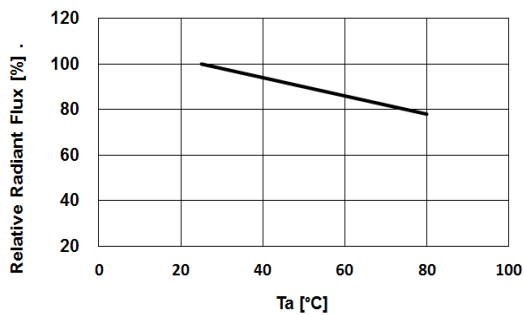


Fig.4 – Forward Voltage (@250mA) vs. Ambient Temperature

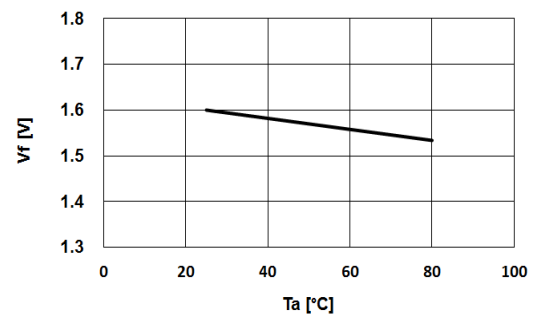


Fig.5 – Peak Wavelength (@250mA) vs. Ambient Temperature

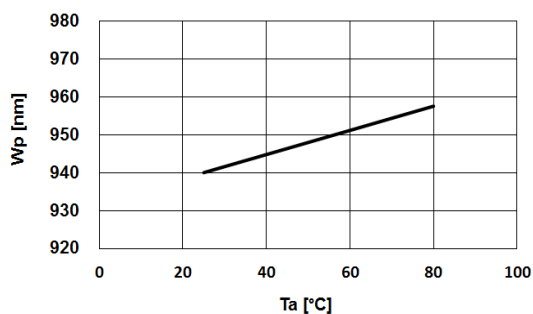


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)

