

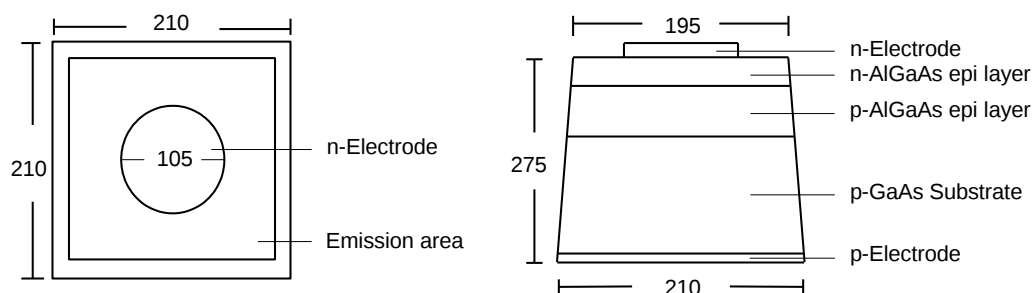
### ■ Features :

- AlGaAs/GaAs Epi Wafer
- Double Hetero-junction Structure
- High Brightness

### ■ Typical Applications :

- Lamp
- Display

### ■ Outline Dimensions : (Unit: $\mu\text{m}$ )



### ■ Physical Structure :

|                   |                     |                                       |
|-------------------|---------------------|---------------------------------------|
| Chip dimension    | Chip size           | 210 $\mu\text{m}$ x 210 $\mu\text{m}$ |
|                   | Thickness           | 275 $\mu\text{m}$                     |
|                   | Emission area       | 195 $\mu\text{m}$                     |
|                   | Bonding pad         | 105 $\mu\text{m}$                     |
| Electrode         | Top: N (cathode)    | Aluminum (Gold optional)              |
|                   | Backside: P (anode) | Gold alloy                            |
| Surface condition | Not frosted         |                                       |

### ■ Electro-Optical Characteristics : ( $T_a = 25^\circ\text{C}$ )

| Parameter                     | Symbol          | Condition             | Min. | Typ. | Max. | Unit          |
|-------------------------------|-----------------|-----------------------|------|------|------|---------------|
| Forward Voltage               | $V_F$           | $I_F = 20 \text{ mA}$ | -    | 1.88 | 2.10 | V             |
| Reverse Current               | $I_R$           | $V_R = 5 \text{ V}$   | -    | -    | 10   | $\mu\text{A}$ |
| *1 Wavelength                 | $\lambda_P$     | $I_F = 20 \text{ mA}$ | -    | 655  | -    | nm            |
|                               | Hue             |                       | -    | 644  | -    |               |
| Spectral width at half height | $\Delta\lambda$ | $I_F = 20 \text{ mA}$ | -    | 20   | -    | nm            |
| Reverse Voltage               | $V_R$           | $I_R = 10 \text{ uA}$ | 5.0  | -    | -    | V             |
| *1 Luminous Intensity         | $I_v$           | $I_F = 20 \text{ mA}$ | 15.0 | -    | -    | mcd           |

\*1 Data on label shows OPTO TECH readings which are measured by sampling 40 pieces per wafer.

### ■ Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

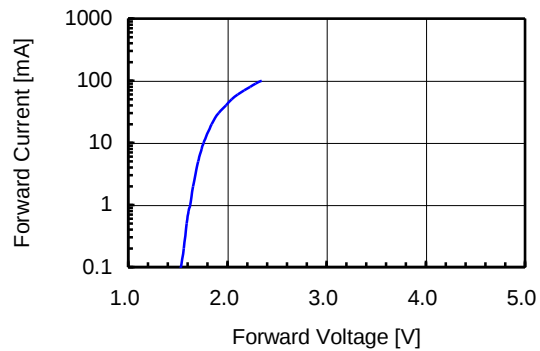


Fig 2. Relative Intensity vs. Forward Current

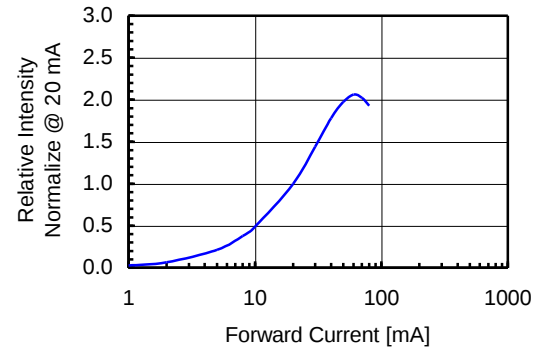


Fig 3. Forward Voltage vs. Temperature

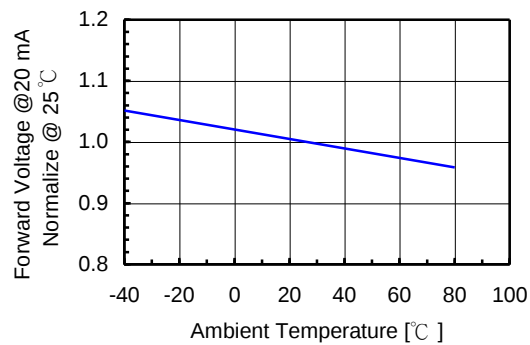


Fig 4. Relative Intensity vs. Temperature

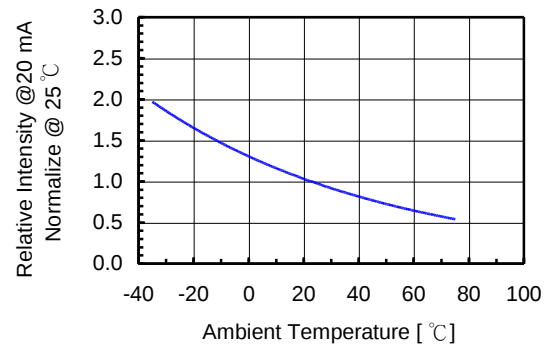


Fig 5. Relative Intensity vs. Wavelength

