

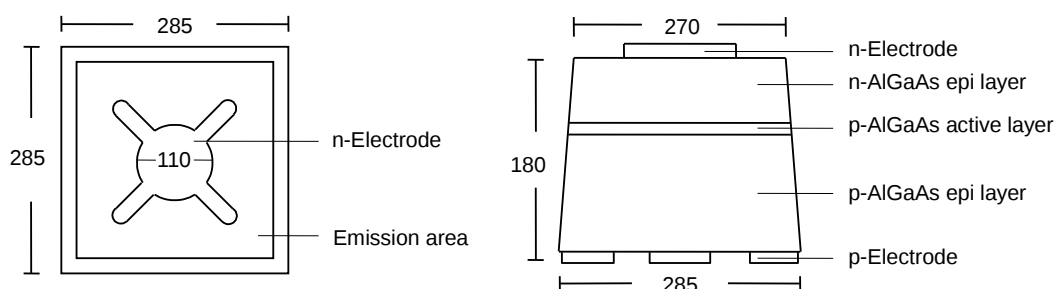
### ■ Features :

- AlGaAs/AlGaAs Wafer
- Very High Power
- High Speed
- High Performance
- Superior Thermal Stability

### ■ Typical Applications :

- IrDA
- Encoder
- Data Communication

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



### ■ Physical Structure :

|                   |                     |                                       |
|-------------------|---------------------|---------------------------------------|
| Chip dimension    | Chip size           | 285 $\mu\text{m}$ x 285 $\mu\text{m}$ |
|                   | Thickness           | 180 $\mu\text{m}$                     |
|                   | Emission area       | 270 $\mu\text{m}$                     |
|                   | Bonding pad         | 110 $\mu\text{m}$                     |
| Electrode         | Top: N (cathode)    | Gold                                  |
|                   | Backside: P (anode) | Gold alloy                            |
| Surface condition | Frosted             |                                       |

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

| Parameter                     | Symbol          | Condition              | Min. | Typ.    | Max. | Unit |
|-------------------------------|-----------------|------------------------|------|---------|------|------|
| Forward Voltage               | $V_F$           | $I_F = 50 \text{ mA}$  | -    | 1.55    | 1.80 | V    |
|                               |                 | $I_F = 200 \text{ mA}$ | -    | 1.95    | 2.30 |      |
| Reverse Voltage               | $V_R$           | $I_R = 10 \text{ uA}$  | 5    | -       | -    | V    |
| Wavelength                    | $\lambda_P$     | $I_F = 50 \text{ mA}$  | -    | 875     | -    | nm   |
| Spectral width at half height | $\Delta\lambda$ | $I_F = 50 \text{ mA}$  | -    | 40      | -    | nm   |
| Radiant Power                 | $P_o$           | $I_F = 20 \text{ mA}$  | 1.00 | 1.40    | -    | mW   |
| Rise / Fall Time              | $t_r / t_f$     | $I_F = 50 \text{ mA}$  | -    | 20 / 20 | -    | ns   |

### ■ Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

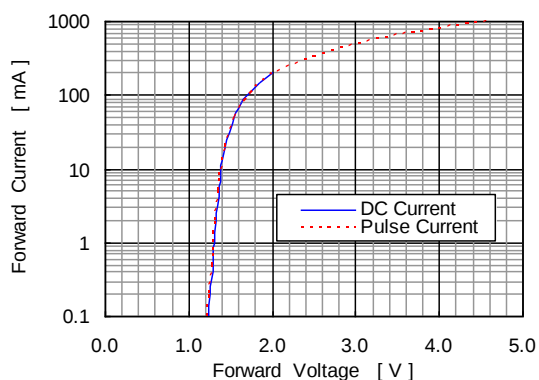


Fig 2. Relative Radiant Power vs. Wavelength

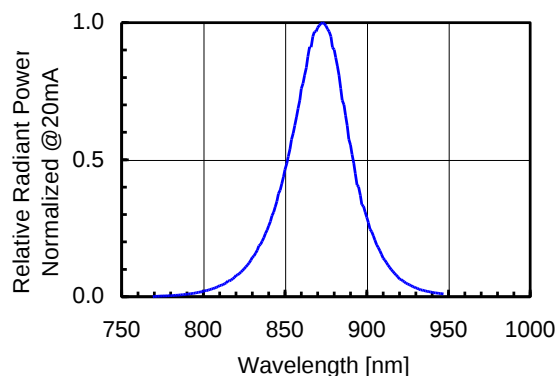
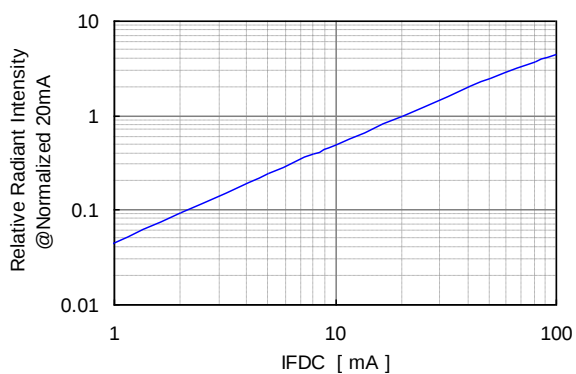
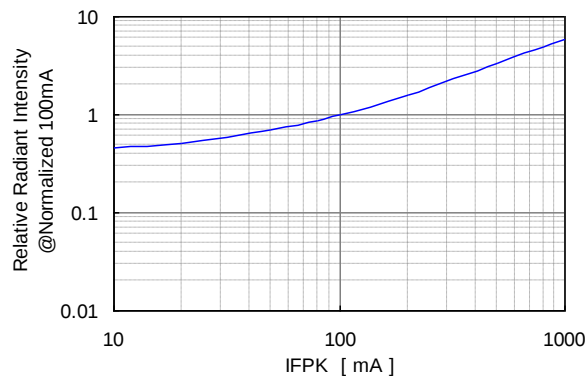
Fig 3. Relative Radiant Power  
vs. Forward DC CurrentFig 4. Relative Radiant Power  
vs. Forward Peak Current

Fig 5. Forward DC Voltage vs. Temperature

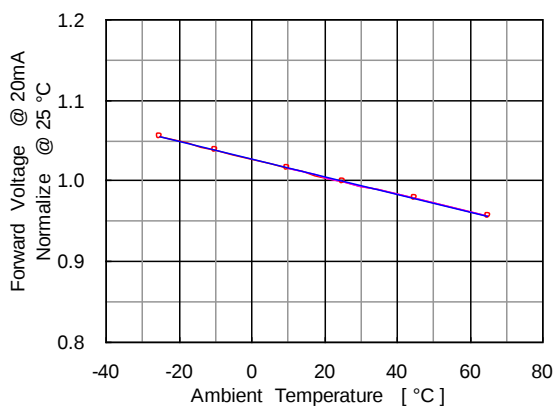


Fig 6. Relative Radiant Power vs. Temperature

