

## Peak Emission Wavelength: 650nm

The 650nm Point Source Series is designed for applications requiring high accuracy and precision. Custom package solutions and sorting are available.

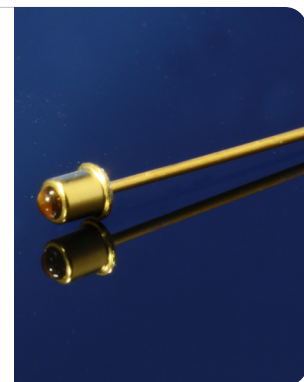
### FEATURES

- > Hermetically Sealed Pigtail Package
- > Emitting Window Diameter  $\Phi$  25 $\mu$ m
- > Gold Plated Dome Lens
- > High Reliability / High Output Power

- > Extremely Narrow Radiation Pattern

### APPLICATIONS

- > Optical Sensing / Optical Instruments
- > Linear & Rotary Encoder
- > Machine Vision / CCD



## Absolute Maximum Ratings (Ta=25°C)

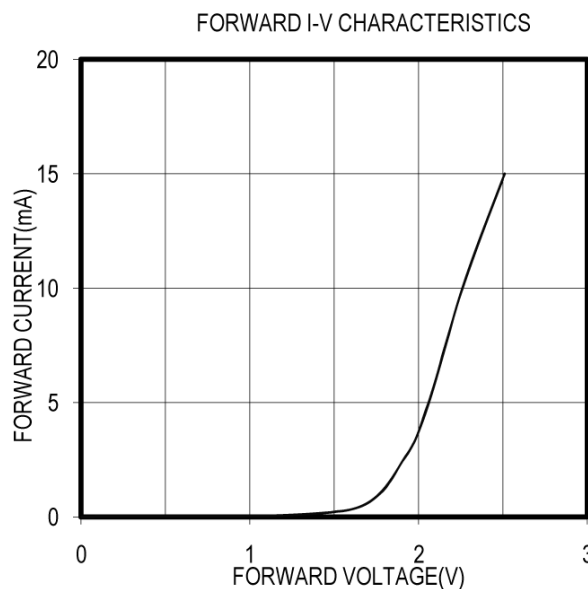
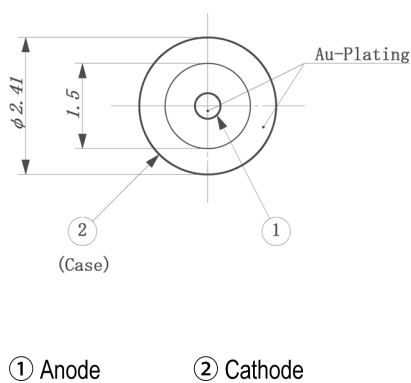
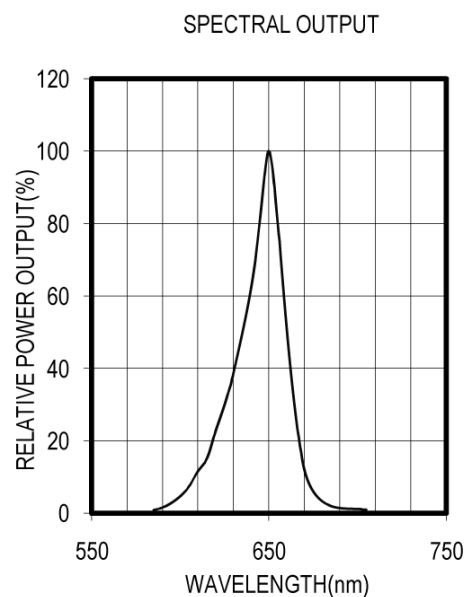
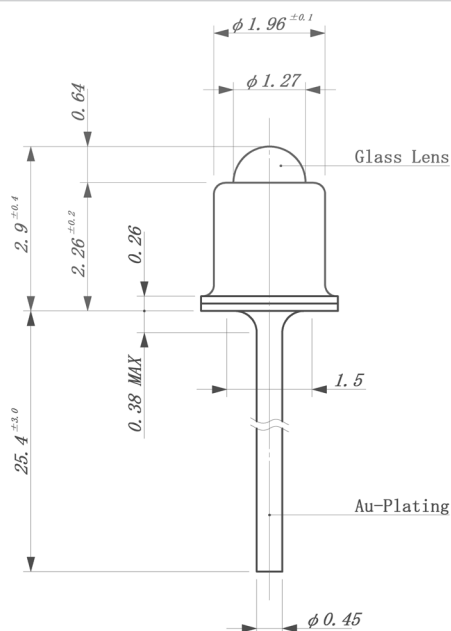


| ITEMS                        | SYMBOL | RATINGS    | UNIT |
|------------------------------|--------|------------|------|
| Forward Current (DC)         | IF     | 15         | mA   |
| Forward Current (Pulse)*1    | IFP    | 80         | mA   |
| Reverse Voltage              | VR     | 5          | V    |
| Power Dissipation            | PD     | 30         | mW   |
| Operating Temperature Range  | Topr   | -20 ~ +85  | °C   |
| Storage Temperature Range    | Tstg   | -30 ~ +100 | °C   |
| Lead Soldering Temperature*2 | Tls    | 260        | °C   |

\*1: Tw=10 $\mu$ sec, T=10msec; \*2: Time 5 Sec max, Position: Up to 3mm from the body.

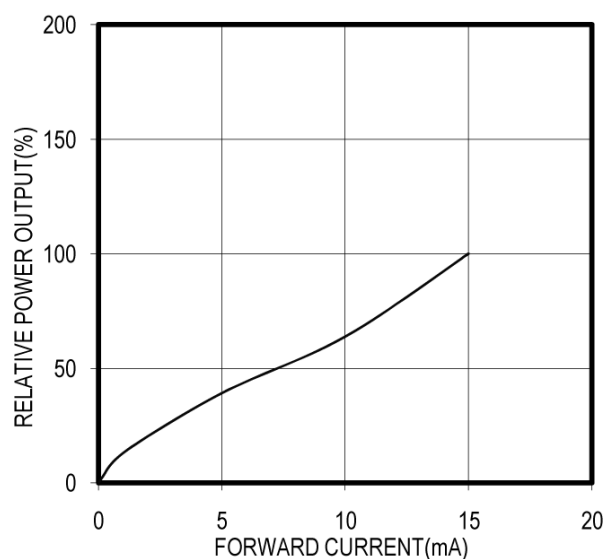
## Electrical & Optical Characteristics (Ta = 25°C)

| ITEMS                     | SYMBOL          | CONDITIONS | MIN | TYP     | MAX | UNIT    |
|---------------------------|-----------------|------------|-----|---------|-----|---------|
| Power Output              | PO              | IF=5mA     | --  | 15      | --  | $\mu$ W |
| Forward Voltage           | VF              | IF=5mA     | --  | 2.0     | 2.4 | V       |
| Reverse Current           | IR              | VR=5V      | --  | --      | 100 | $\mu$ A |
| Peak Emission Wavelength  | $\lambda_p$     | IF=5mA     | --  | 650     | --  | nm      |
| Spectral Line Half Width  | $\Delta\lambda$ | IF=5mA     | --  | 20      | --  | nm      |
| Half Intensity Beam Angle | $\Theta$        | IF=5mA     | --  | $\pm 5$ | --  | deg     |

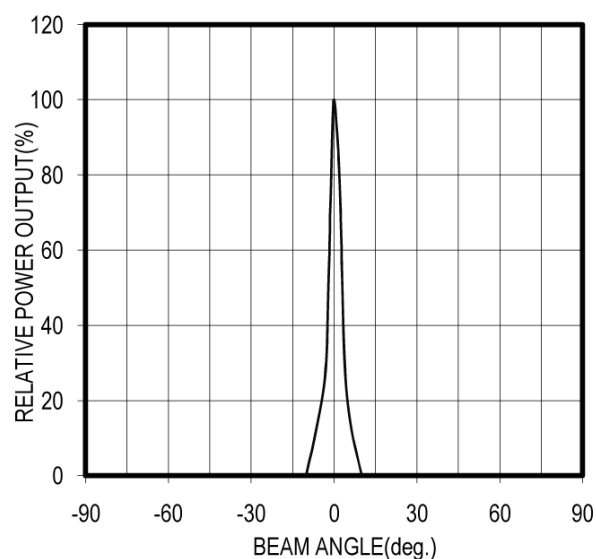


Unit: mm, Tolerance:  $\pm 0.2$

RELATIVE POWER vs FORWARD CURRENT



RADIATION PATTERN



THERMAL DERATING CURVE

