

## Peak Emission Wavelength: 850nm

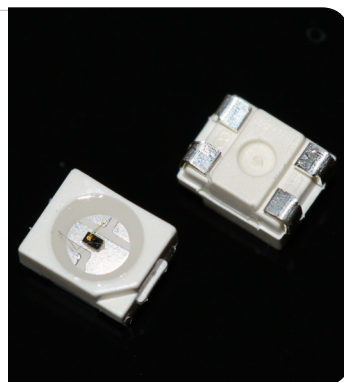
The 850nm Point Source Series is designed for applications requiring high accuracy and precision as well as uniform spectral emission. Custom package solutions and sorting are available.

### FEATURES

- > PLCC-4 Package
- > Emitting Window Diameter  $\Phi$  50 $\mu$ m
- > High Reliability / High Output Power

### APPLICATIONS

- > Optical Scanning
- > Linear & Rotary Encoder
- > Edge Sensing
- > Optical Sensors



## Absolute Maximum Ratings (Ta=25°C)



| ITEMS                       | SYMBOL | RATINGS    | UNIT |
|-----------------------------|--------|------------|------|
| Forward Current             | IF     | 50         | mA   |
| Forward Current (Pulse)*1   | IFP    | 200        | mA   |
| Reverse Voltage             | VR     | 5          | V    |
| Power Dissipation           | PD     | 100        | mW   |
| Operating Temperature Range | Topr   | -20 ~ +85  | °C   |
| Storage Temperature Range   | Tstg   | -30 ~ +100 | °C   |

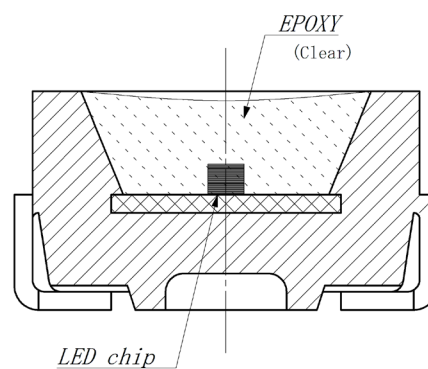
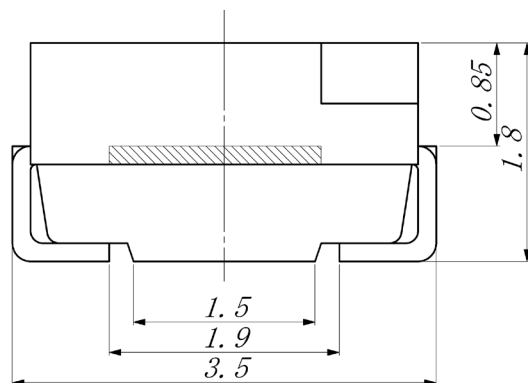
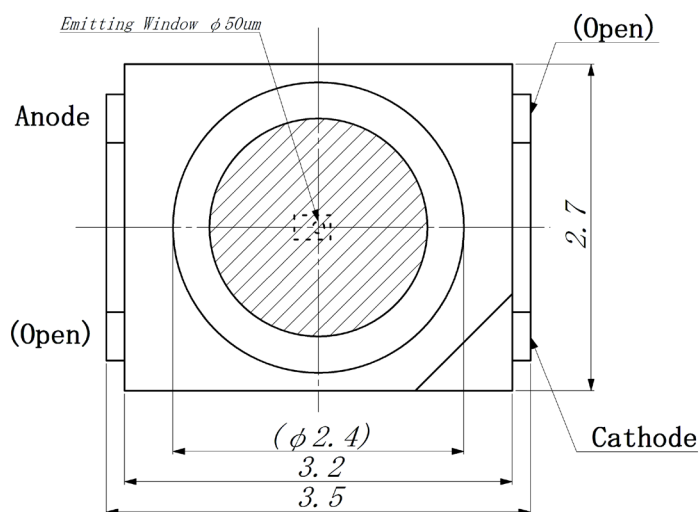
\*1: Tw≤100μsec [4% duty].

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

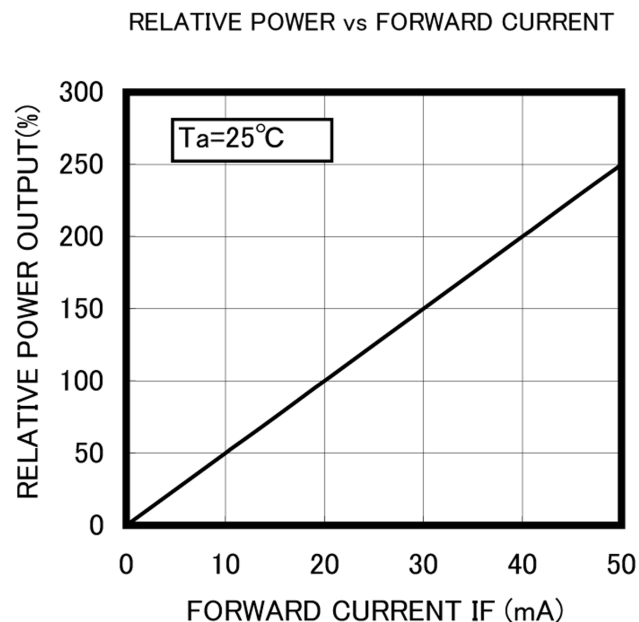
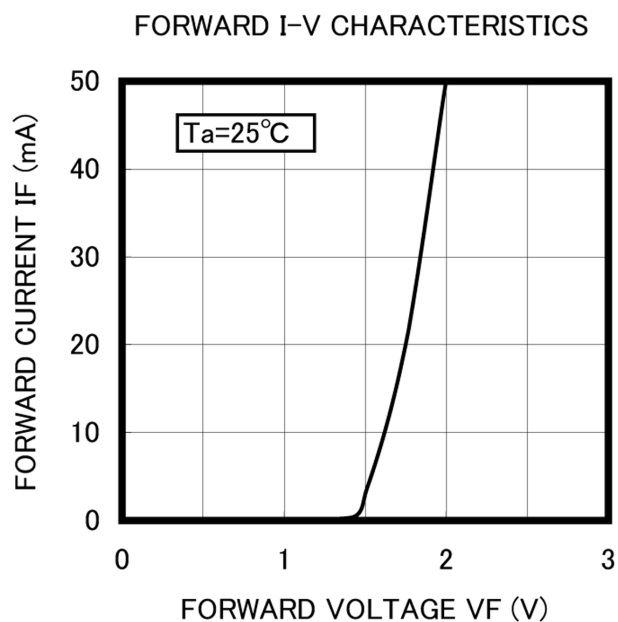
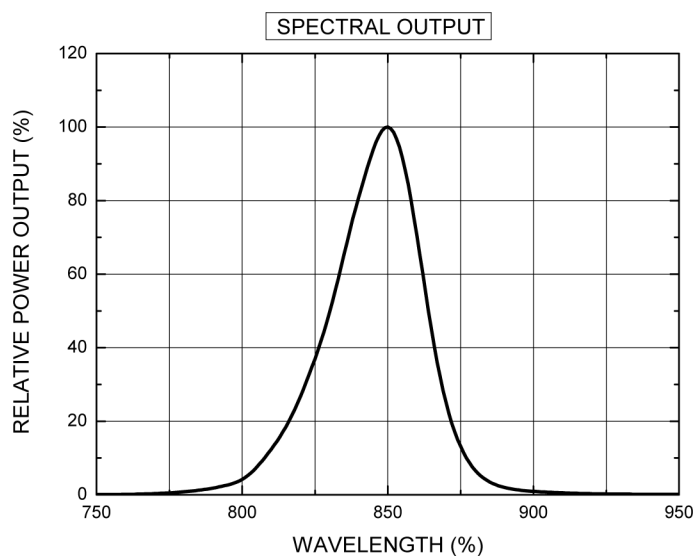
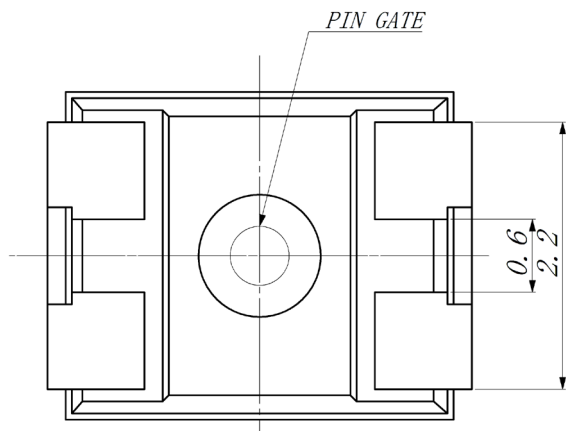
| ITEMS                     | SYMBOL          | CONDITIONS | MIN | TYP  | MAX | UNIT |
|---------------------------|-----------------|------------|-----|------|-----|------|
| Power Output              | PO              | IF=20mA    | 2.0 | 2.5  | --  | mW   |
| Power Output*1            | PO              | IFP=200mA  | 8.0 | --   | --  | mW   |
| Forward Voltage           | VF              | IF=20mA    | --  | 1.65 | 2.2 | V    |
| Reverse Current           | IR              | VR=5V      | --  | --   | 100 | μA   |
| Peak Emission Wavelength  | $\lambda_p$     | IF=20mA    | --  | 850  | --  | nm   |
| Spectral Line Half Width  | $\Delta\lambda$ | IF=20mA    | --  | 34   | --  | nm   |
| Half Intensity Beam Angle | $\Theta$        | IF=20mA    | --  | ±50  | --  | deg  |

\*1: Tw=100μsec [4% duty].

2012-02-21

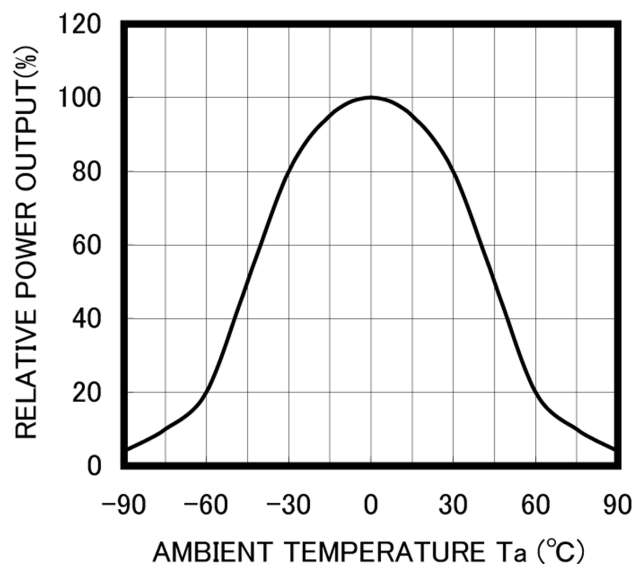


Unit: mm, Tolerance:  $\pm 0.2$

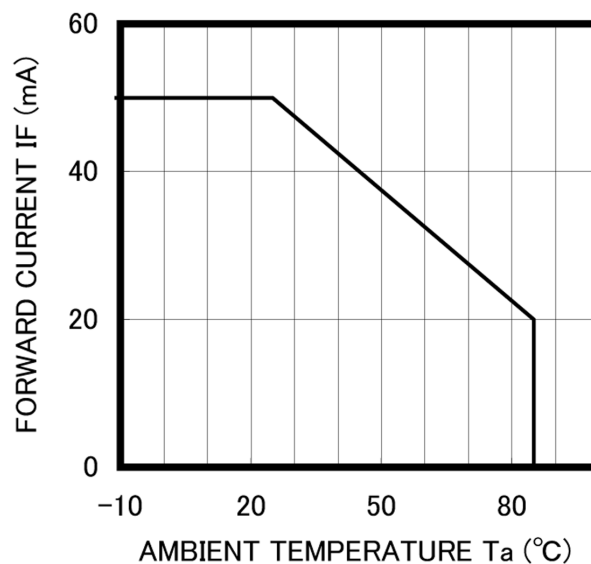


Unit: mm, Tolerance:  $\pm 0.2$

**RADIATION PATTERN**  
IF=20mA



**THERMAL DERATING CURVE**



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