

## GH0382AA2G

### Violet Laser Diode

### Violet Laser Diode

#### ■ Features

- (1) Wavelength : 380nm(Typ.)
- (2) Multi-mode output
- (3)  $\Phi$ 5.6mm CAN package

#### ■ Applications

- (1) 3D printer
- (2) Exposure equipment
- (3) other application

#### ■ Absolute Maximum Ratings

( Tc=25°C \*1 )

| Parameter                  | Symbol  | Ratings   | Unit |
|----------------------------|---------|-----------|------|
| Optical output power       | Po      | 210       | mW   |
| Reverse voltage (LASER)    | Vrl     | 2         | V    |
| Operating temperature (*1) | Top (C) | +20 ~ +30 | °C   |
| Storage temperature        | Tstg    | -40 ~ +85 | °C   |
| Soldering temperature (*2) | Tsld    | 350       | °C   |

\*1 Tc : Case temperature

\*2 Soldering temperature means soldering iron tip temperature. Soldering position is 1.6mm apart from bottom edge of the case. (Immersion time:  $\leq$ 3s)

#### ■ Specifications

( Tc=25°C )

| Parameter   | Symbol                   | Conditions | Min. | Typ. | Max. | Unit |
|---|--------------------------|------------|------|------|------|------|
| Threshold current   | Ith                      | -          | -    | 200  | TBD  | mA   |
| Operating current   | Iop                      | -          | -    | 325  | TBD  | mA   |
| Operating voltage   | Vop                      | -          | -    | 4.4  | TBD  | V    |
| Wavelength  | $\lambda_p$              | -          | 375  | 380  | 385  | nm   |
| 1/e <sup>2</sup> Intensity Angle(Parallel)(Note 1,2)      | $\theta_{//} (1/e^2)$    | Po=200mW   | TBD  | 15   | TBD  | °    |
| 1/e <sup>2</sup> Intensity Angle(Perpendicular)(Note 1,2) | $\theta_{\perp} (1/e^2)$ |            | TBD  | 36   | TBD  | °    |
| Misalignment angle (Parallel) (Note 2)                    | $\Delta\theta_{//}$      |            | -5   | -    | 5    | °    |
| Misalignment angle (Perpendicular) (Note 2)               | $\Delta\theta_{\perp}$   |            | -5   | -    | 5    | °    |

\*1 Full angle of 13.5% ( $\approx$  1/e<sup>2</sup>) peak intensity

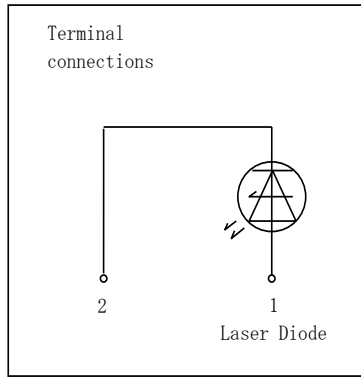
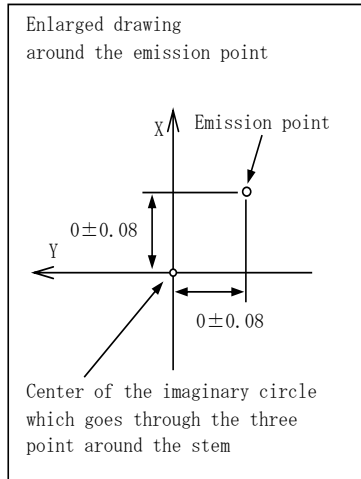
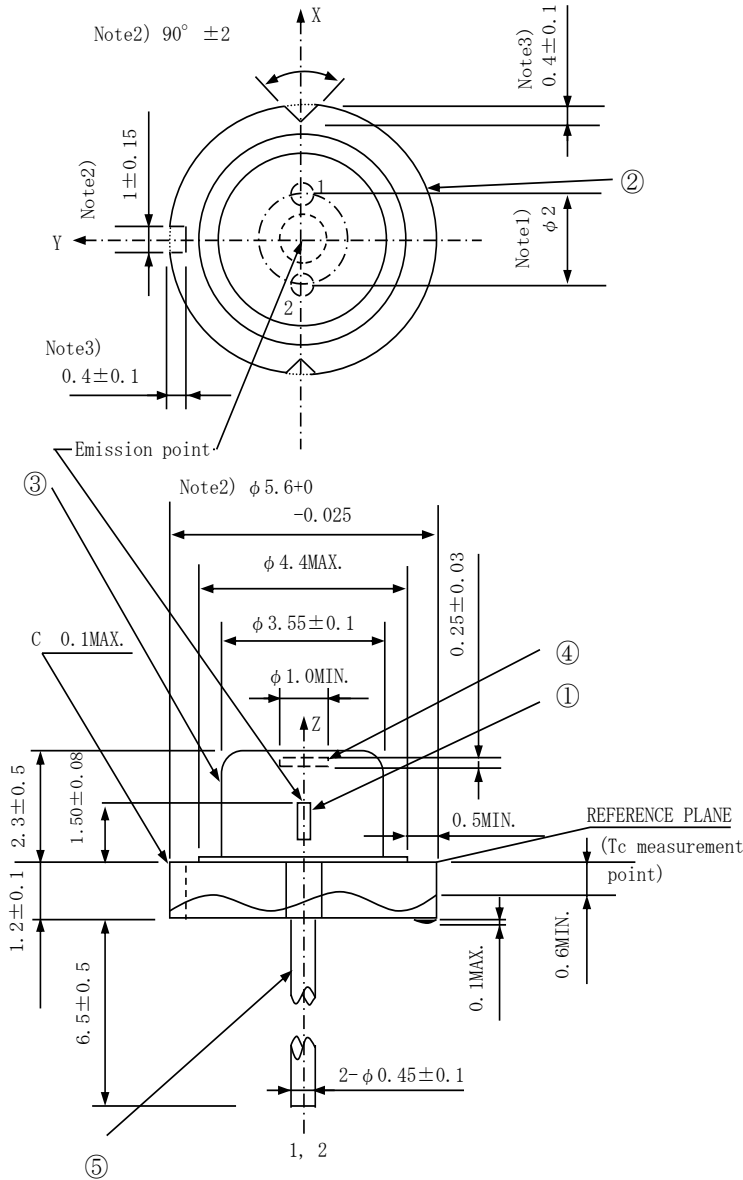
\*2 Parallel to the junction plane(X-Z plane) , Perpendicular to the junction plane(Y-Z plane)

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### ■ Connections and outline dimensions



Mass of the product :  
0.31g (reference value)

Marking  
This model has 2 way marking type.

- Note 1) Dimension of the bottom of leads.
- Note 2) These dimensions are valid only in the range of 0 ~ 0.6mm below from the reference plane.
- Note 3) These dimensions are defined from the imaginary circle which goes through the three points around the stem to the bottom of cut off parts.

Type. 2  
Position : Top or side of a cap  
Printed contents : T.B.D.

| No. | Component        | Material            | Finish        |
|-----|------------------|---------------------|---------------|
| ①   | Laser Diode Chip | InAlGaN             | -             |
| ②   | Stem             | Fe + Cu             | Gold-plated   |
| ③   | Cap              | Kovar               | Nickel-plated |
| ④   | Window glass     | Borosilicated glass | -             |
| ⑤   | Lead pins        | Kovar               | Gold-plated   |

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