

***Φ8mm 650nm Laser Module***

***P<sub>o</sub>: < 3mW***

Features

1. APC (auto power control) IC inside
2. Low current consumption of the APC circuit
3. Surge current protection
4. High quality lens for output beam



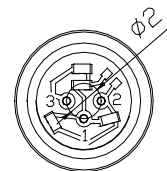
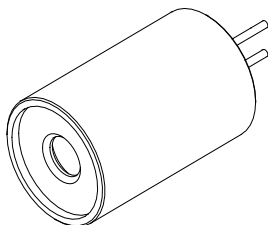
Absolute maximum ratings

| Item                              | Symbol           | Rating | Unit |
|-----------------------------------|------------------|--------|------|
| Power supply voltage              | V <sub>cc</sub>  | 3.3    | V    |
| Laser Module optical output power | P <sub>o</sub>   | <3     | mW   |
| Operation temperature             | T <sub>opr</sub> | 0~40   | °C   |
| Storage temperature               | T <sub>stg</sub> | 0~60   | °C   |

Electrical and optical characteristics (T<sub>c</sub>=25 °C)

| Item                             | Symbol          | Min. | Typ. | Max | Unit | Condition                                |
|----------------------------------|-----------------|------|------|-----|------|--|
| Wavelength                       | λ               | -    | 655  | -   | nm   | P <sub>o</sub> = 3mW                     |
| Operation current                | I <sub>op</sub> | -    | -    | 35  | mA   | P <sub>o</sub> = 3mW V <sub>cc</sub> =3V |
| Operation voltage                | V <sub>op</sub> | 2.5  | -    | 3.3 | Volt |  |
| Laser Beam spot size at 10m      |                 |      |      |     |      | <10mm                                    |
| Divergence angle                 |                 |      |      |     |      | 1.1 mrad                                 |
| Mean time to failure (MTTF) 25°C |                 |      |      |     |      | >10000 hrs                               |

Outline dimensions (Units: mm)



Aperture Size : 2.5mm

**Laser Safety Precautions**

1. Do not look into the laser beam directly by eyes. The laser beam may cause severe damage to human eyes.
2. Optical Lens is made of plastic or glass. Do not contaminate lens by soiling, oil or chemical.

*\* For reference only. Contents above are subject to change without notice.*

Contact

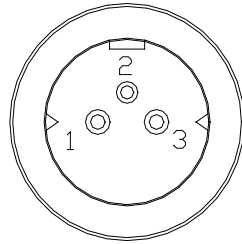
For US, Canada  
For EU  
For Japan

Ayase America Inc.  
Ayase Europe GmbH  
Ayase Co., Ltd.

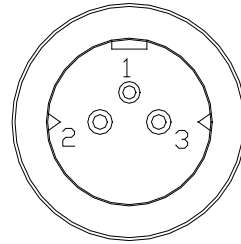
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PIN Assignment:



**A type** : Heat sink stand (-)



**B type** :Heat sink stand (+)

**Pin 1** : Vcc

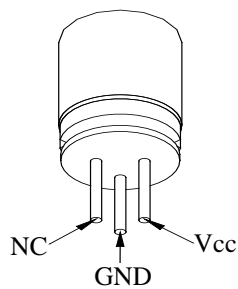
**Pin 2** : GND

**Pin 3** : NC ( No external connection )

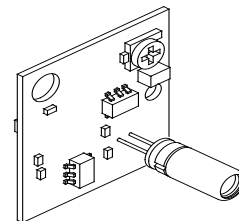
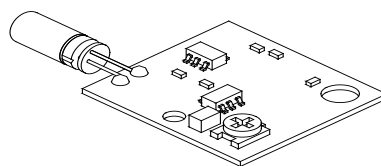
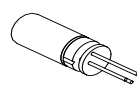
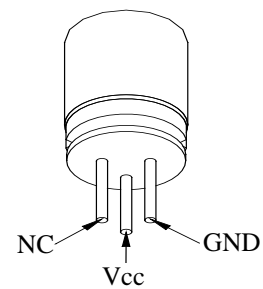
Instruction manual

1. DC Power connection mode 1

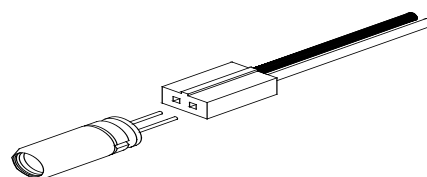
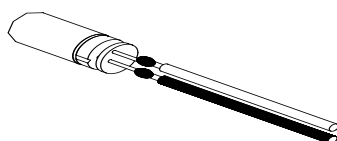
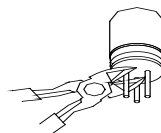
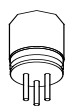
**A type** : Heat sink stand (-)



**B type** :Heat sink stand (+)



2. DC Power connection mode 2



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