

## Φ10.5mm 830nm Laser Module

### Features

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



### Absolute maximum ratings

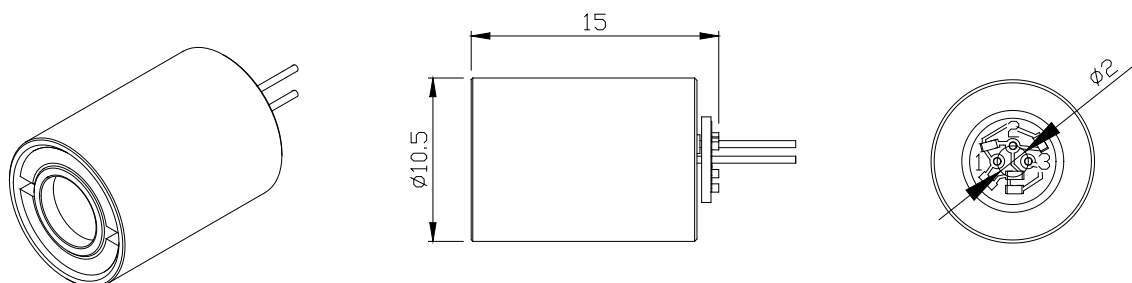
Parameter	Symbol	Rating	Unit
Power supply voltage	V <sub>cc</sub>	3.3	V
Laser Module optical output power	P <sub>o</sub>	<1	mW
Operation temperature	T <sub>opr</sub>	0~50	°C
Storage temperature	T <sub>stg</sub>	-20~85	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Wavelength	λ	-	830	-	nm	P <sub>o</sub> = 1mW
Operation current	I <sub>op</sub>	-	-	40	mA	P <sub>o</sub> = 1mW ; V <sub>cc</sub> =3V
Optical output power	P <sub>out</sub>	0.5	-	0.9	mW	
Operation voltage	V <sub>op</sub>	2.5	-	3.3	Volt	
Laser Beam spot size at 10m						<8mm
Divergence angle						0.9 mrad

\* Sufficient heat dissipation is required for CW operation.

### Outline dimensions (Units: mm)



Aperture Size : 5mm

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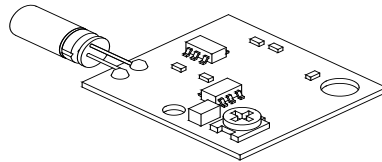
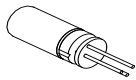
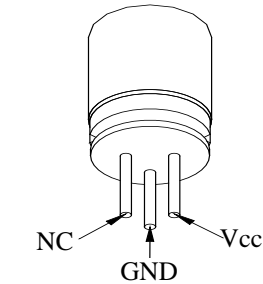
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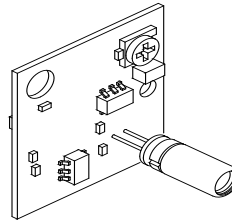
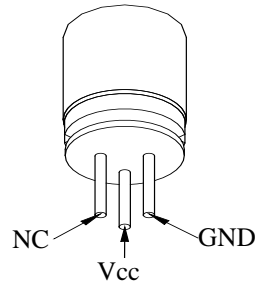
### Instruction manual

#### DC Power connection mode 1

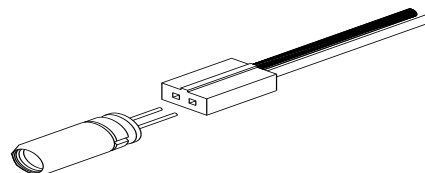
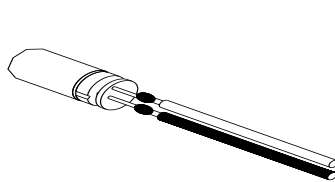
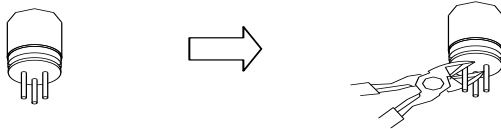
**A type** : Heat sink stand (-)



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



#### DC Power connection mode 2



#### ● Precautions

- \* Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- \* Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- \* Proper heat sinking of the device assures stability and lifetime. Always ensure that maximum operating temperatures are not exceeded.
- \* Observing visible or invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- \* No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- \* Specifications are subject to change without notice. Ensure that you have the latest specification by contacting us prior to purchase or use of the product.

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