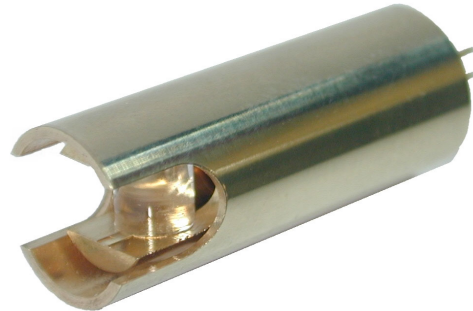


Φ11.5mm 635nm Laser Line Generator***Power set by user*****1. Features**

1. APC (auto power control) IC inside
2. Glass Lens
3. High brightness
4. better line quality

**2. Applications**

1. Industrial Laser line marks
2. measuring instruments
3. Laser leveling

3. Absolute maximum ratings

Item	Symbol	Rating	Unit
Power supply voltage	V_{cc}	3.3	V
Laser optical output power	P_o	3mW	mW
Operation temperature	T_{opr}	-5~40	°C
Storage temperature	T_{stg}	-40~75	°C

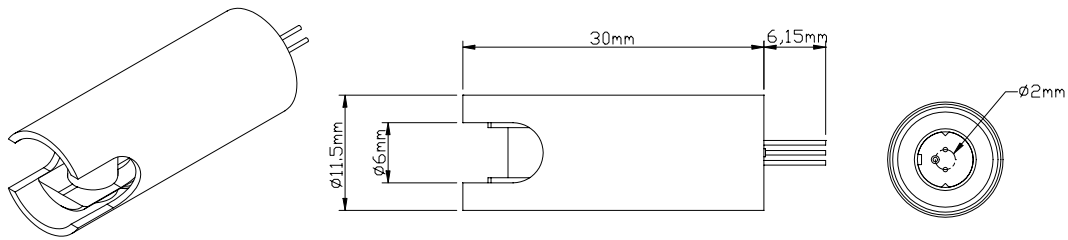
4. Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Min.	Typ.	Max	Unit	Condition
Wavelength	λ	630	634	640	nm	$P_o=3\text{mW}$
Operation current	I_{op}	30	45	60	mA	$P_o=3\text{mW}$ $V_{cc}=3\text{V}$
Operation voltage	V_{op}		3	3.3	Volt	
Laser line accuracy		< 0.01° (40") at 4m				
Emitting angle		> 120°				
Mean time to failure (MTTF) 3mW 25°C		>5000 hrs				

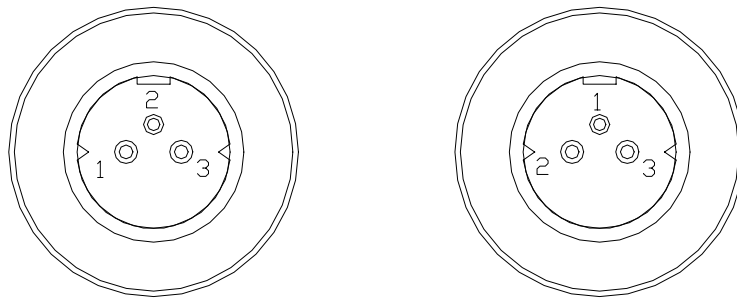
Laser Safety Precautions

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.

5. Outline dimensions (Units: mm)



PIN Assignment:



A type : Heat sink stand (-)

B type :Heat sink stand (+)

Pin 1 : Vcc

Pin 2 : GND

Pin 3 : (1) PD

for APCL-635-01 -XX-A/B

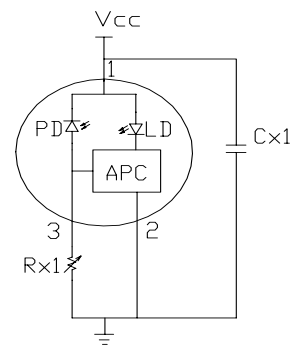
(2) NC (no external connection)

for APCL-635-01 -C2/C3-A/B

6. Laser power Adjustment Procedure

Connect 1 uF capacitor (Cx1) between Pin1 and Pin2.

1. Connect 20~50K ohm variable resistor (Rx1) between Pin2 and Pin3.
2. Set Vcc to the designed value.
3. Adjust Rx1 to obtain the desired output power.
4. Laser Safety Precautions



- (1) Do not increase Vcc value when the laser module is working near the maximum power. That is to protect laser from overdriving condition and make sure power is under 3 mW.
- (2) Do not operate the device above the maximum rating condition, even momentarily. It may cause unexpected permanent damage to the device.