

# Blue Laser Diode Module **AML-D200-450050-01**

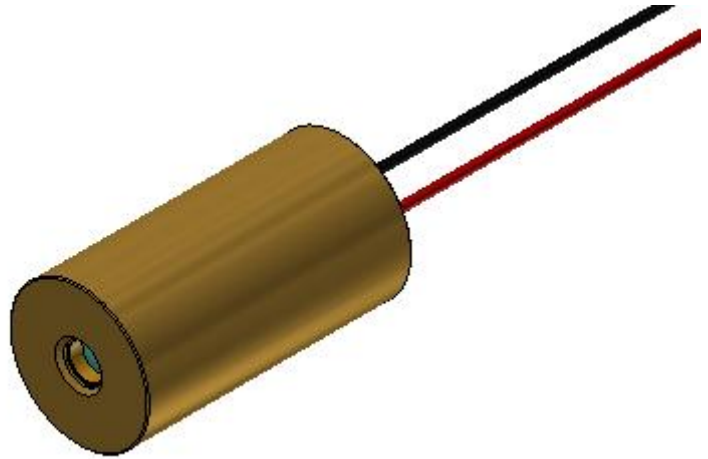
## 50mW Blue Laser Module

### Features

1. APC (auto power control) driver circuit
2. Wide input voltage range (3~ 6VDC)
3. Stable Output power of <50mW
4. High quality glass lens for output beam

### Applications

1. General purpose blue laser light source
2. Industrial laser marker



### Part No. Indications:

AML-D 200 - 450 050 - 01

- Serial No.
- Output power option "050" <50mW
- Wavelength
- Outline dimensions "200" =20mm
- Laser type: D — Laser Dot

### Absolute maximum ratings ( $T_c=25^\circ\text{C}$ )

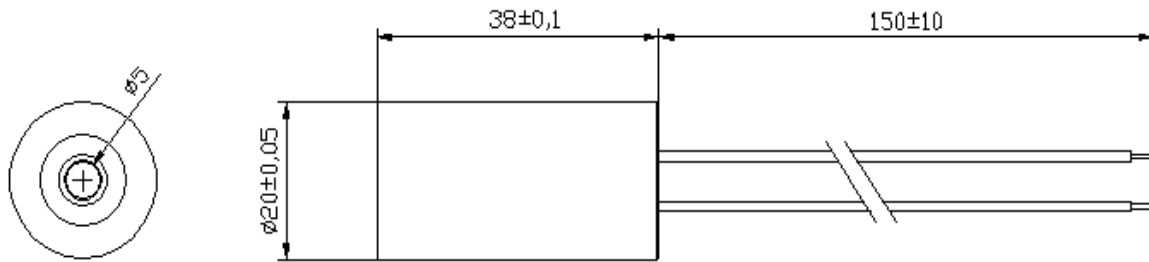
| Item                              | Symbol    | Rating | Unit             |
|-----------------------------------|-----------|--------|------------------|
| Power supply voltage              | $V_{cc}$  | 6      | V                |
| Laser Module optical output power | $P_o$     | 55     | mW               |
| Operation Case Temperature        | $T_c$     | 0~60   | $^\circ\text{C}$ |
| Storage Temperature               | $T_{stg}$ | -40~80 | $^\circ\text{C}$ |

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

| Item                        | Symbol    | Min. | Typ. | Max      | Unit | Condition                               |
|-----------------------------|-----------|------|------|----------|------|-----------------------------------------|
| Wavelength                  | $\lambda$ | 440  | 450  | 460      | nm   | $P_o=50\text{mW}$                       |
| Output power                | $P_{out}$ |      |      | <50      | mW   | $V_{cc}=3\text{V}$                      |
| Operation current           | $I_{op}$  | -    | 180  | 250      | mA   | $P_o=50\text{mW}$<br>$V_{cc}=3\text{V}$ |
| Operation voltage           | $V_{op}$  | 3    |      | 6        | Volt |                                         |
| Laser Beam spot size at 10m |           |      |      | <15mm    |      |                                         |
| Divergence angle            |           |      |      | 1.5 mrad |      |                                         |

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## **Outline dimensions (Units: mm)**



**Red wire : Vcc**

**Black wire : GND**

### **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 glass . Do not contaminate lens by soiling, oil or chemical.