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CW405-05

- Violet Laser Diode Module
- 405 nm, <5 mW
- Automatic Power Control
- Wide Input Voltage Range (2-5 VDC)
- Fix Focus Acryl Lens



Description

CW405-05 is a compact size fix collimated laser diode module with a typical emission wavelength of **405 nm**, and an optical output power of **<5 mW**. It features automatic power control (**APC**) driving electronics for stable operation, and supports a wide input voltage range (2-5 VDC). **CW405-05** comes equipped with a coaxial power connector. A matching **power supply**, **heat sink**, and suitable **laser module holder** is optionally available for quick setup and convenient operation (see page 3 for details).

Maximum Ratings (T_{CASE} = 25°C)

| Parameter | Values | | Unit |
|-----------------------|--------|------|------|
| | Min. | Max. | |
| Operating temperature | + 10 | + 50 | °C |
| Storage temperature | - 20 | + 80 | °C |

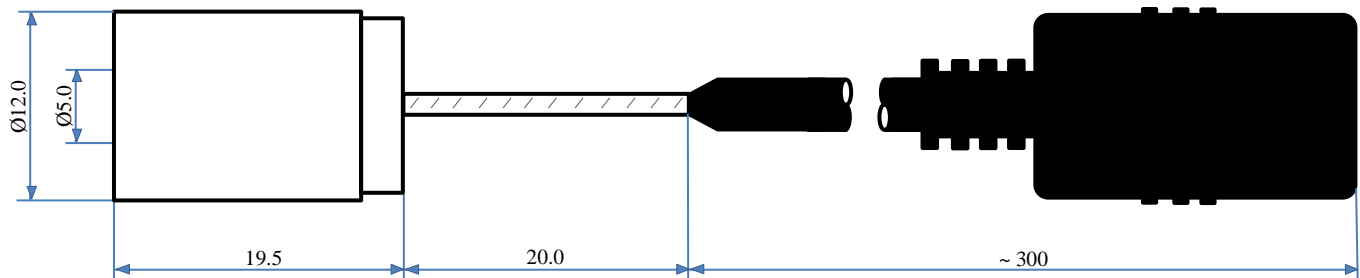
Electro-Optical Characteristics (T_{CASE} = 25°C)

| Parameter | Values | | | Unit |
|---------------------------|----------------------------------|-------|----------|------------|
| | Min. | Typ. | Max. | |
| Peak Wavelength | 400 | 405 | 410 | nm |
| Radiated Power | | | 5 | mW |
| Beam diameter at aperture | | 2 x 4 | | mm |
| Beam divergence | | 1.0 | | mrad |
| Operating Current | | 70 | | mA |
| Supply Voltage | 2 | | 5 | VDC |
| Material body | aluminium, black anodized | | | |
| Material lens | acryl | | | |
| Dimensions | Ø 12 x 20 (40) | | | mm |
| Connector | IEC 60130-10, Type A, 5.5/2.1 mm | | | |
| MTTF | 5000 | | | h |





Outline Dimensions



all dimensions in mm

Electrical Connection

(IEC 60130-10, Type A, 5.5/2.1 mm)



Precautions

Static Electricity:

Precautions against electrostatic discharge (ESD) must be taken when handling or operating the module. Surge voltage or electrostatic discharge can result in complete failure of the laser diode.

Heat Sinking:

In order to maintain lifetime and stability of the laser diode it is essential to provide efficient heat management. For long time stable operation proper contact between laser module and heat sink is mandatory.

Safety:

This laser module emits highly concentrated visible light which can be **hazardous to the human eye and skin**. It is classified as **CLASS 3R laser product** according to **IEC 60825-1** and **21 CFR Part 1040.10 Safety Standards**. Actual laser light emitted and precautions necessary strongly depend on mode of operation.





Accessories

Power Supply

LPS51C



- 100-240 VAC universal input voltage
- AC Europlug (CEE7/16)
- IEC 60130-10 Type A connector
- Output 5 VDC, max. 1 A
- CE certified
- 30 x 80 x 75 mm
- 80 g

Heat Sink

SQ50x34



- Aluminium, black anodized
- Clamping mechanism
- 50 x 50 x 34 mm
- 114 g

Holder

RLM-1650



- Steel, black anodized
- Height, reach, tilt adjustable
- Fixture 360° turnable
- Max. module diameter: 16.5 mm
- 69 x 67 mm
- 152 g