

25mW 850nm Line Laser Module

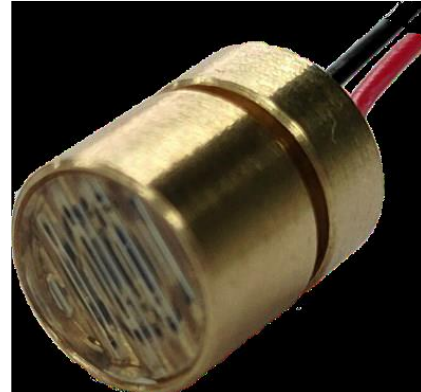
VM-0850F-025M-HL-0A0

Features

- Uniform and detail-oriented
- No stripes & No noise
- Compact, small size
- Low thermal resistance
- High power conversion efficiency

Applications

- Infrastructure alignment
- Medical and beauty application
- Indication and positioning
- Smart housing system
- Sweeping robot



Description

This product VM-0850F-025M-HL-0A0 is integrated by in-house manufactured & high-quality laser diode and is shielding with copper for better heat dissipation. Compared with traditional laser and LED, it enables to provide a higher peak power and lower power consumption, low wavelength drift with temperature and good reliability. It provides narrower emission angle without optical and thermal compensation, which allow to operate a wider range of environments. This product with laser diodes with small-sized, light, low price, long life, low power consumption and fast frequency response. It can be applied to infrastructure alignment, positioning, indication, inspection, machine vision and other fields for ideal invisible laser source.

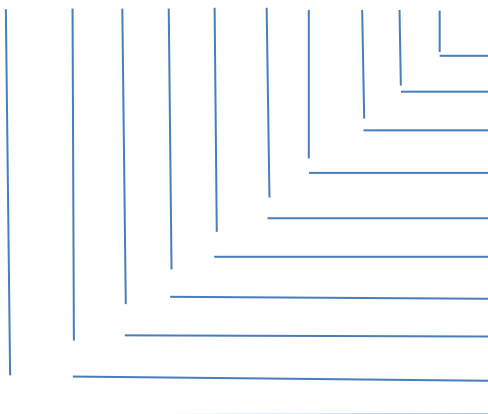
PRODUCT IDENTIFY

Part Number	Description
VM-0850F-025M-HL-0A0	850nm Line Shape Laser module, 5mm linewidth @20cm

CODE RULES

VM- 0850F-025M -H L - 0 A 0

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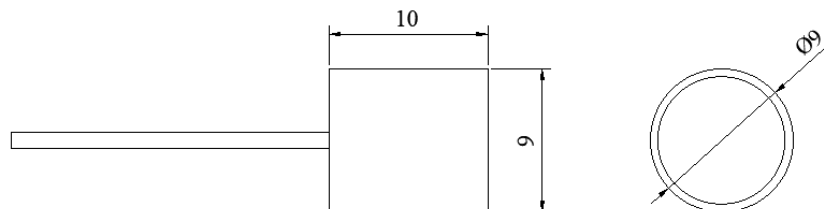
Annex, option=0
 Product version, A
 Accessories 0 = standard
 Shape, L= Line
 Angle, H = 140-170
 Units, M =milliwatt
 Power value, 25
 Laser class: F=Class 1
 Wavelength, 850nm
 Product classification, **VCSEL Module**

I. Specifications

Parameters	Typical values	Unit	Remarks
Wavelength	850	nm	-
Optical power	25±1	mW	-
Beam line width	3-5	mm	@20cm
Beam spot	Line, horizontal angle 155°~165°	-	@20cm
Beam divergence	1.2±0.1	°	-
Operating voltage	DC 2.0±0.1	V	-
Rated current	<50	mA	-
Power consumption	<95	mW	-
Storage temperature	-40 to +85	°C	-
Operating temperature	-40 to +105	°C	-
Waterproof	IP20	-	-
Dimensions	Φ9×L11	mm	See Machanics
Positive electrical color	Red	-	-
Negative electrical color	Black	-	-
Laser classification	Class 1	-	-
Lifetime	50000	H	-
Weight	-	g	Customizable

Note: Electro-Optical Characteristic with a package or diffuser would require further evaluation. Values are based on limited sample size and estimated values.

II. Mechanic schematic (including 3.3V standard driver board)



III. Laser Product Safety

The output power of this module is classified as class 1, one can refer to IEC 60825-1:2014 《Laser Product Safety: Part 1: Devices classification, requirements and user's Manual》.

IV. Copyright Statement

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V. Revision History

Revisions	Date	Description
V.01	2021/8/25	The first official Version