

EEL M10

FD65506530A

650nm 1.8~2.5mW

It adopts aluminum anode appearance treatment, scratch resistance, corrosion resistance, high voltage resistance, wide operating voltage range, good heat dissipation and longer laser life for customers to choose.

This series is specially designed for industrial applications, suitable for hand tools, industrial tool positioning, power tools and other fields



Feature

- Good insulation
- High temperature resistance coefficient
- Price advantage
- Strong adaptability to the environment

Application

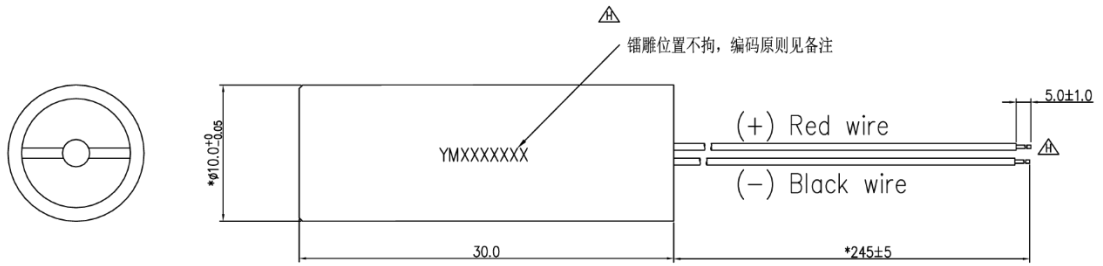
- Power tools such as hand tools
- Industrial Tool Positioning
- CT/MRI for pets

Specification

Parameter	Symbol	Min.	Typical	Max.	Unit
CW Optical Power	P_O	1.8	-	2.5	mW
Operating Current	I_{OP}	-	-	35	mA
Operating Voltage	V_{OP}	-	3	-	V
Wavelength at Peak Emission	λ_p	-	650	-	nm
Operating Temp. Range	T_{OP}	-10	-	50	°C
Storage Temp. Range	T_{STG}	-40	-	80	°C
Spot Size at 5m		-	-	5	mm
Driving Circuit	APC				
Lens Material	Glass Lens				

Mechanical Dimensions

1. Dimensional Drawing



[Cautions]

1. Absolute maximum ratings

The absolute maximum ratings which must not be exceeded even momentarily have been established for over driving laser operation reason such as COD. Exercise particular caution with respect to the drive voltage supply and static electricity.

2. Prevention of surge current and electrostatic discharge (ESD) and surge stress

Laser diode is sensitive device to ESD and surge, so even an extremely short time, Laser diode damaged with the strong light emitted. Use the power supply that was designed not to exceed the optical power output specified at the absolute maximum ratings.

We advise taking the following protective measures:

- Ground the device and circuits.
- When working with laser diodes wear anti-static clothing.
- Grounded wrist straps should always be worn while working with laser diodes.
- Use anti-static containers for transport and storage.
- Laser diode deterioration and damage can occur due to excessive current spikes when the power is turned on or off.

Design circuits to avoid the generating of excessive current spikes

3. Soldering

When soldering, please give attention to the mechanical stress and the temperature. Temperature of die-pad portion should be less than 160°C. It is recommended to radiate heat by putting heat sink on the package.

Soldering temperature and time : Iron temperature less than 180°C within 3sec (leads only)

4. Eye Safety

When the laser diode is in operation, looking into laser beam directly by naked eyes, even looking into through a lens, microscope, or optical fibers, may cause severe damage to human eyes. For observing laser beams, using safety goggles is recommended.

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