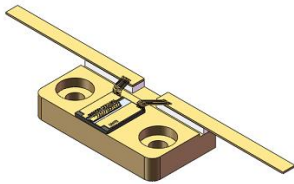


## 1060nm 10W Uncooled F-Mount Laser Diode Module

TY-FM-1060±10nm-10.0W-01



SkyEra delivers uncooled single emitter diode lasers, employing AuSn bonding package with multiple advantages of stable output power, high power, high efficiency, long lifetime and high compatibility, and are widely applied in the market.

The performance and aging tests have been performed upon the production line to ensure reliable, stable and long lifetime of products.

To provide customers with high-quality, high cost performance products is the company's goal.

### Features:

- Single emitter design
- High output power
- High stability
- Long lifetime
- RoHS compliance

### Application:

- Medical
- Printing
- Industry
- Pumping
- Lighting

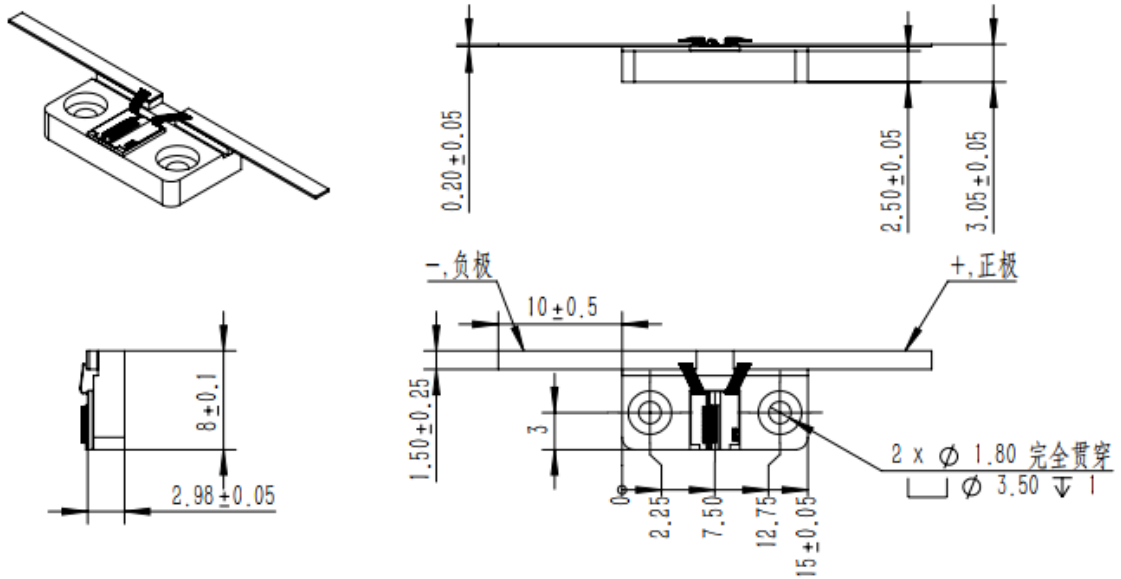
### Specification:

Functional parameters are tested at the temperature of the heat sink is 25 degree, contact resistance of the component and heat sink is less than 1 CM<sup>2</sup> K/W. Reduced lifetime if used above nominal operating conditions. A non-condensing environment is required for storage and operation below the ambient dew point.

| Parameters                        | Min  | Typ          | Max  | Unit  | Conditions                         |
|-----------------------------------|------|--------------|------|-------|------------------------------------|
| Output Power                      |      | 10           |      | W     |                                    |
| Center Wavelength<br>FM           | 1050 | 1060         | 1070 | nm    |                                    |
| Spectral Width (FWHM)             | -    | 3.5          | -    | nm    |                                    |
| Spectral Width (90%)              | -    | 6            | -    | nm    |                                    |
| Fast-Axis Divergence (FWHM)       | -    | 30           | -    | °     | Collimated compression is possible |
| Slow-Axis Divergence (FWHM)       | -    | 10           | -    | °     |                                    |
| Wavelength Tuning vs. Temperature | -    | 0.35         | -    | nm/°C |                                    |
| Polarization Mode                 | -    | TE           | -    | -     |                                    |
| Emitter Size                      | -    | 94           | -    | μm    |                                    |
| Threshold Current                 | -    | 0.5          | -    | A     |                                    |
| Operating Current                 | -    | -            | 12.0 | A     |                                    |
| Operating Voltage                 | -    | 1.7          | 2.2  | V     |                                    |
| Power Conversion Efficiency       | -    | 55.0         | -    | %     |                                    |
| Slop Efficiency                   | -    | 1.05         | -    | W/A   |                                    |
| Storage Temperature               | 0    | -            | 80   | °C    | non-condensing                     |
| Operating Temperature             | 15   | -            | 55   | °C    | non-condensing                     |
| Apparent Size                     | -    | 35.0X8.0X3.0 | -    | mm    |                                    |

## 2. Dimension Diagram

Unit:MM



## 3. Instructions

- Avoid eyes or skin exposure to direct or scattered radiation;
- ESD protection is required for transportation, storage and operation; short-circuit protection between pins is required for transportation and storage.
- Please connect pins by solder when operating current is over 6A; solder point should be close to the root of pins with a max soldering temperature at  $260^{\circ}\text{C}$  and a duration less than 10 seconds ;
- Drive constant current power supply by laser and avoid surge while working;
- Operate under rated current and rated power;
- Good heat dissipation is required;
- Operating temperature is  $15^{\circ}\text{C} \sim 55^{\circ}\text{C}$ ;
- Storage temperature is  $0^{\circ}\text{C} \sim +80^{\circ}\text{C}$ .

