



## RLT975M-3WFC



### TECHNICAL DATA

## Multi-Mode 14-Pin Butterfly Laser Diode

### Features

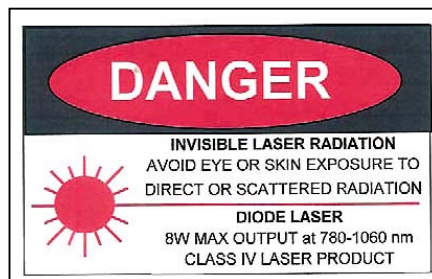
- Lasing Mode Structure: multi mode
- Peak Wavelength : typ. 975 nm
- Optical Output Power: 3000 mW
- Package: 14-Pin Butterfly, Thermistor, TEC
- Fiber: 100µm core diameter



### Specifications (T<sub>C</sub>=25°C)

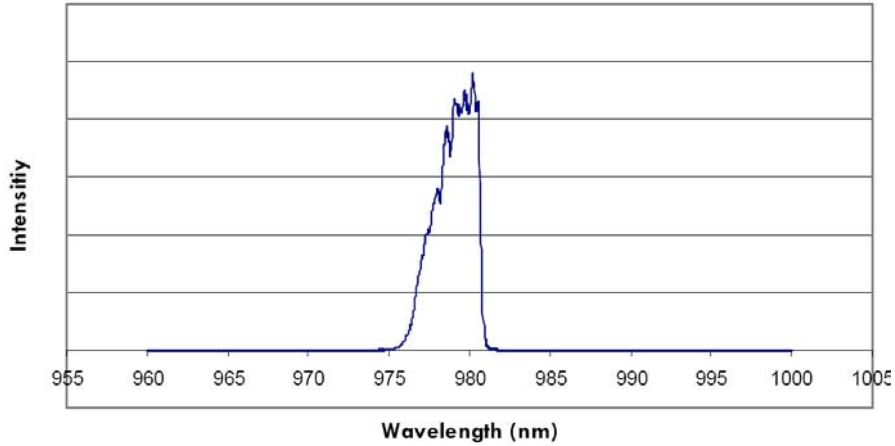
| Item                            | Symbol              | Min.   | Typ. | Max. | Unit  |
|---------------------------------|---------------------|--------|------|------|-------|
| <b>Optical Specification</b>    |                     |        |      |      |       |
| Wavelength                      | $\lambda_P$         | 975    | 980  | 985  | nm    |
| Spectrum FWHM                   | $\Delta\lambda$     | -      | 3    | 5    | nm    |
| Operating Power                 | $P_o$               | -      | 3000 | -    | mW    |
| <b>Electrical Specification</b> |                     |        |      |      |       |
| Operating Current               | $I_o$               | -      | 4.2  | 4.7  | A     |
| Threshold                       | $I_{th}$            | -      | 0.25 | 0.55 | A     |
| Operating Voltage               | $V_o$               | -      | 1.9  | 2.3  | V     |
| Slope Efficiency                | $\Delta P/\Delta I$ | 0.65   | 0.75 |      | W/A   |
| TEC Voltage                     |                     | -      | -    | 2.9  | V     |
| TEC Current                     |                     | -      | -    | 7.5  | A     |
| <b>General Specification</b>    |                     |        |      |      |       |
| Lifetime                        |                     | 10.000 |      |      | hours |
| Storage temperature             |                     | -40    | -    | 80   | °C    |
| Operating Temperature           |                     | 0      | 25   | 40   | °C    |
| Lead Soldering Temp. (5 sec)    |                     | -      | -    | 250  | °C    |

The above specifications are for reference purpose only and subjected to change without prior notice.

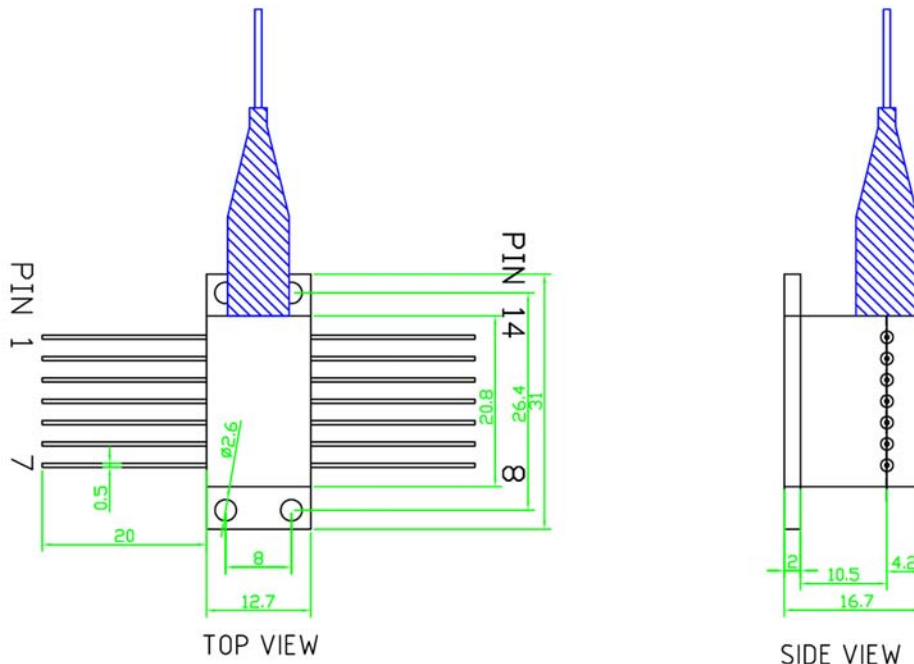




## Spectral Emission



## Package



### PIN OUT

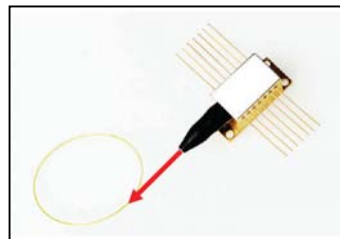
- |              |                     |
|--------------|---------------------|
| 1 TEC(+)     | 14 TEC(-)           |
| 2 Thermistor | 13 Case Ground      |
| 3 PD Anode   | 12 NC               |
| 4 PD Cathode | 11 Laser Cathode(-) |
| 5 Thermistor | 10 Laser Anode(+)   |
| 6 NC         | 9 NC                |
| 7 NC         | 8 NC                |

UNIT: mm



## Safety of Laser light

- Laser Light can damage the human eyes and skin. Do not expose the eye or skin directly to any laser light and/or through optical lens. When handling the LDs, wear appropriate safety glasses to prevent laser light, even any reflections from entering to the eye. Focused laser beam through optical instruments will increase the chance of eye hazard.
- **WARNING: Laserdiode is emitting invisible light**



## Cautions

### 1. Operating methode

- This LD shall change its forward voltage requirement and optical ouput power according to temperature change. Also, the LD will require more operation current to maintain same ouput power as it degrades.
- Confirm that electrical spike current generated by switching on and off does not exceed the maximum operating current level specified herein above as absolute maximum rating. Also, employ appropriat countermeasures to reduce chattering and/or overshooting in the circuit.

### 2. Static Electricity

- Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist trap or anti-electrostatic glove when handling the product.

### 3. Absolute Maximum Rating

- Active layer of LDs shall have high current density and generate high electric field during its operation. In order to prevent excessive damage, the LD must be operated stricly below absolute maximum rating.