

**WLD-100-685 Red Laser Diode**
**685 nm, 100 mW**
**Features**

- Good FFP Performance
- High Power
- High Efficiency
- 5.6 mm Package

**Applications**

- Excitation
- Bioanalytical
- Photolithography, Curing and others

**Absolute Maximum Ratings**

| Parameter            | Symbol          | Condition | Rating     | Unit |
|----------------------|-----------------|-----------|------------|------|
| Light output power   | P <sub>o</sub>  | CW        | 105        | mW   |
| Reverse voltage (LD) | V <sub>RL</sub> | -         | 2          | V    |
| Reverse voltage (PD) | V <sub>RD</sub> | -         | 30         | V    |
| Case temperature     | T <sub>c</sub>  | -         | -10 to +70 | °C   |
| Storage temperature  | T <sub>s</sub>  | -         | -40 to +85 | °C   |

**Electrical and Optical Characteristics**

| Parameter                         | Symbol           | Min | Typ. | Max | Unit   | Condition                  |
|-----------------------------------|------------------|-----|------|-----|--------|----------------------------|
| Threshold current                 | I <sub>th</sub>  | -   | 40   | -   | mA     | -                          |
| Operating current                 | I <sub>op</sub>  | -   | 125  | -   | mA     | P <sub>o</sub> =100 mW     |
| Operating voltage                 | V <sub>op</sub>  | -   | 2.35 | -   | V      |                            |
| Peak wavelength                   | λ                | -   | 685  | -   | nm     |                            |
| Parallel divergence angle         | θ <sub>  </sub>  | -   | 9    | -   | Degree |                            |
| Perpendicular divergence angle    | θ <sub>⊥</sub>   | -   | 14   | -   | Degree |                            |
| Parallel FFP deviation angle      | Δθ <sub>  </sub> | -3  | 0    | 3   | Degree |                            |
| Perpendicular FFP deviation angle | Δθ <sub>⊥</sub>  | -3  | 0    | 3   | Degree |                            |
| Monitor current                   | I <sub>m</sub>   | 0.1 | 0.2  | 0.5 | mA     | P <sub>o</sub> =5 - 100 mW |
| Differential efficiency           | η                | -   | 1.17 | -   | mW/mA  |                            |



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