

INFRARED LASER DIODE

DL-5032-001

SANYO

Ver.2 Nov. 1999

Features

- Lasing wavelength : 830 nm (Typ.)
- Low threshold current : $I_{th} = 30$ mA (Typ.)
- High output power : 30 mW

Applications

- Laser printer
- Measurement equipments

Absolute Maximum Ratings

($T_c=25^\circ\text{C}$)

| Parameter | | Symbol | Ratings | Unit |
|-----------------------|-------|-----------|-----------|------|
| Light Output | CW | P_o | 40 | mW |
| Reverse Voltage | Laser | VR | 2 | V |
| | PIN | | 30 | |
| Operating Temperature | | T_{opr} | -10 ~ +60 | |
| Storage Temperature | | T_{stg} | -40 ~ +80 | |

Electrical and Optical Characteristics ¹⁾

($T_c=25^\circ\text{C}$)

| Parameter | | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-------------------------------|---------------|----------------|-------------------|------|------|---------|---------------|
| Threshold Current | | I_{th} | CW | 20 | 30 | 40 | mA |
| Operating Current | | I_{op} | $P_o=30\text{mW}$ | | 60 | 90 | mA |
| Operating Voltage | | V_{op} | $P_o=30\text{mW}$ | | 1.9 | 2.5 | V |
| Lasing Wavelength | | ρ | $P_o=30\text{mW}$ | 810 | 830 | 840 | nm |
| Beam ²⁾ Divergence | Perpendicular | | $P_o=30\text{mW}$ | 15 | 18 | 23 | deg. |
| | Parallel | // | $P_o=30\text{mW}$ | 5 | 7.5 | 10 | deg. |
| Off Axis Angle | Perpendicular | | $P_o=30\text{mW}$ | | | ± 3 | deg. |
| | Parallel | // | $P_o=30\text{mW}$ | | | ± 3 | deg. |
| Differential Efficiency | | dP_o/dI_{op} | $P_o=30\text{mW}$ | 0.6 | 1.0 | 1.3 | mW/mA |
| Monitoring Output Current | | I_m | $P_o=30\text{mW}$ | 0.05 | 0.10 | | mA |
| Astigmatism | | As | $P_o=30\text{mW}$ | | | 10 | μm |

1) initial values, 2) full angle at half maximum,

Note : The above product specification are subject to change without notice.

