

Infrared Laser Diode

Part No: LD-808-5A-30-A-3



Features

- ※ Wavelength: $\lambda = 808\text{nm}$ (Type)
- ※ Output optical power: 500mW (CW)
- ※ Package: T0-5 ($\Phi 9\text{mm}$)

Applications

- ※ Industrial Use

Absolute Maximum Rating at $T_c=25^\circ\text{C}$

| Items | Symbols | Values | Unit |
|-----------------------------|-------------|----------------|------------------|
| Optical Output Power | P_o (CW) | 500 | mW |
| Laser Diode Reverse Voltage | V_r | 2 | V |
| Photo Diode Reverse Voltage | V_r (PIN) | 30 | V |
| Operating Temperature | T_{opr} | $-10 \sim +30$ | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | $-40 \sim +80$ | $^\circ\text{C}$ |

Electrical and Optical Characteristics at $T_c=25^\circ\text{C}$

| Items | Symbols | Min | Type | Max. | Unit | Condition |
|-------------------------|--------------------------------|-----|------|---------|---------------|--------------------|
| Optical Output Power | P_o | - | 500 | - | mW | CW |
| Threshold Current | I_{th} | - | 80 | 150 | mA | CW |
| Operating Current | I_{op} | - | 600 | 800 | mA | $P_o=500\text{mW}$ |
| Monitor Current | I_m | - | 0.2 | 0.8 | mA | $P_o=500\text{mW}$ |
| Slope Efficiency | η | 0.5 | 0.8 | - | mW/mA | $P_o=500\text{mW}$ |
| Operating Voltage | V_{op} | - | 2 | 2.3 | V | $P_o=500\text{mW}$ |
| Lasing Wavelength | λ | 805 | 808 | 812 | nm | $P_o=500\text{mW}$ |
| Beam Divergence | // | 8 | 10 | 14 | $^\circ$ | $P_o=500\text{mW}$ |
| | \perp | 30 | 35 | 40 | $^\circ$ | $P_o=500\text{mW}$ |
| Beam Angle | $\Delta //$ | - | - | ± 3 | $^\circ$ | $P_o=500\text{mW}$ |
| | $\Delta \perp$ | - | - | ± 3 | $^\circ$ | $P_o=500\text{mW}$ |
| Emission Point Accuracy | $\Delta X, \Delta Y, \Delta Z$ | -80 | - | +80 | μm | - |

1) Measurement condition: CW

2) Full angle at half maximum.

3) All the above values are measured by OPELUS method.

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Package and Electrical connection

