

INFRARED LASER DIODE

DL-8141-002



Ver.1 Feb. 2007

Features

- Lasing wavelength : 808 nm (Typ.)
- Single longitudinal mode
- High output power : 200 mW at 50°C
- Low threshold current : I_{th} = 50 mA (Typ.)
- Fundamental transverse mode
- Package : $\phi 5.6$ mm

Applications

- Solid state laser pumping

Absolute Maximum Ratings

(T_c=25°C)

| Parameter | | Symbol | Ratings | Unit |
|-----------------------|-------|------------------|------------|------|
| Light Output | CW | P _o | 210 | mW |
| Reverse Voltage | Laser | V _R | 2 | V |
| | PD | | 30 | |
| Operating Temperature | | T _{opr} | -10 to +50 | °C |
| Storage Temperature | | T _{stg} | -40 to +85 | °C |

Standard usage condition

- Max. 200mW (at CW operation)

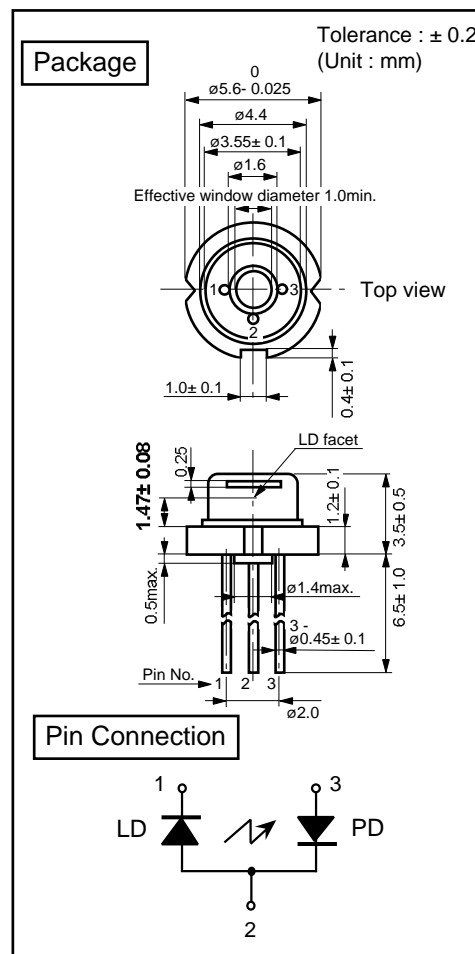
Electrical and Optical Characteristics ^{1) 2)}

(T_c=25°C)

| Parameter | | Symbol | Condition | Min. | Typ. | Max. | Unit |
|----------------------------------|---------------|-----------------|-----------------------|------|------|------|-------|
| Threshold Current | | I _{th} | CW | - | 50 | 70 | mA |
| Operating Current | | I _{op} | P _o =200mW | - | 230 | 260 | mA |
| Operating Voltage | | V _{op} | P _o =200mW | - | 2.0 | 2.4 | V |
| Lasing Wavelength | | L _p | P _o =200mW | 798 | 808 | 818 | nm |
| Beam ³⁾ Divergence | Perpendicular | Q _v | P _o =200mW | 12 | 16 | 20 | ° |
| | Parallel | Q _h | P _o =200mW | 6 | 8 | 10 | ° |
| Off Axis Angle | Perpendicular | dQ _v | - | -3 | - | 3 | ° |
| | Parallel | dQ _h | - | -3 | - | 3 | ° |
| Differential Efficiency | | SE | - | 0.8 | 1.2 | - | mW/mA |
| Monitoring Output Current | | I _m | P _o =200mW | 0.15 | 0.5 | 0.9 | mA |

- 1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
 3) Full angle at half maximum

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



Distributed by

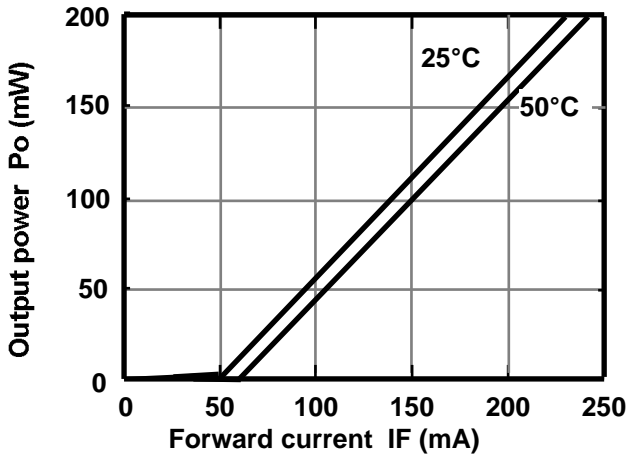
IMM Meßtechnologie GmbH
 Ohmstraße 4, D-85716 Unterschleißheim

Tel.: +49 89 321412-0
 Fax: +49 89 321412-11

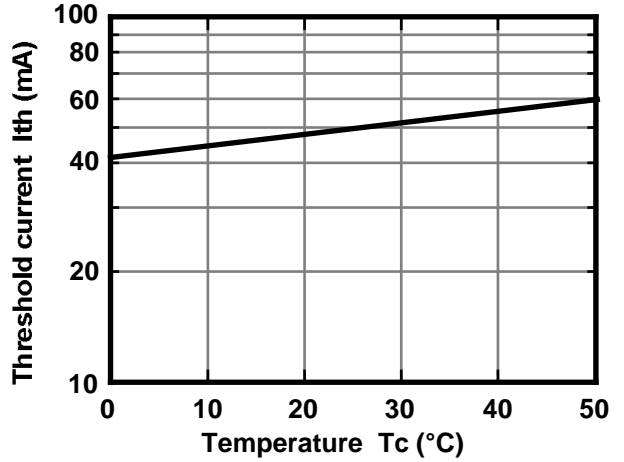
info@imm-laser.de
 www.imm-laser.de

Characteristics

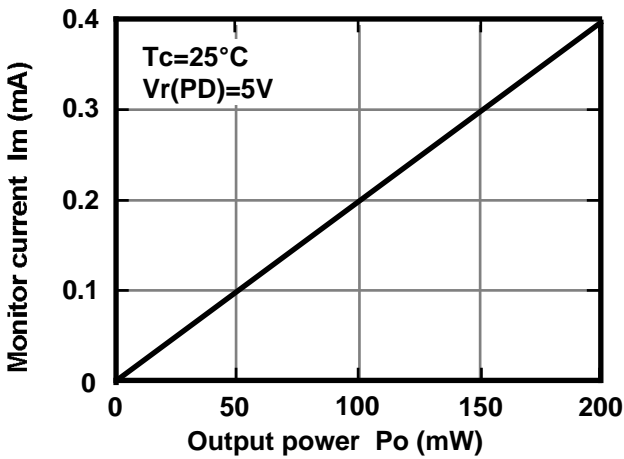
Output power vs. Forward current



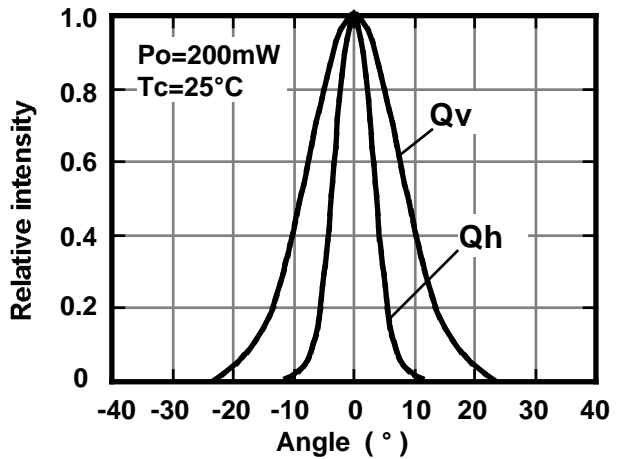
Threshold current vs. Temperature



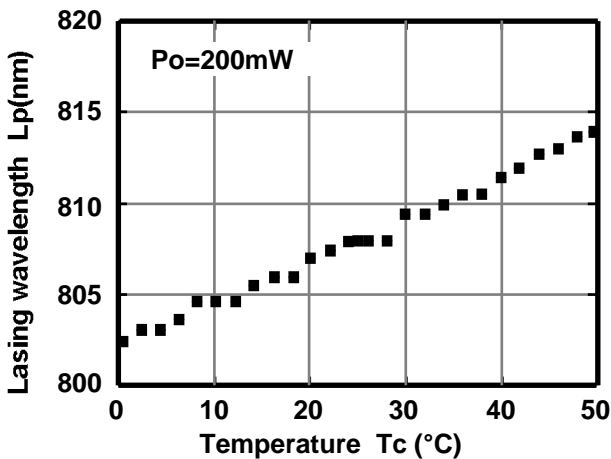
Monitor current vs. Output power



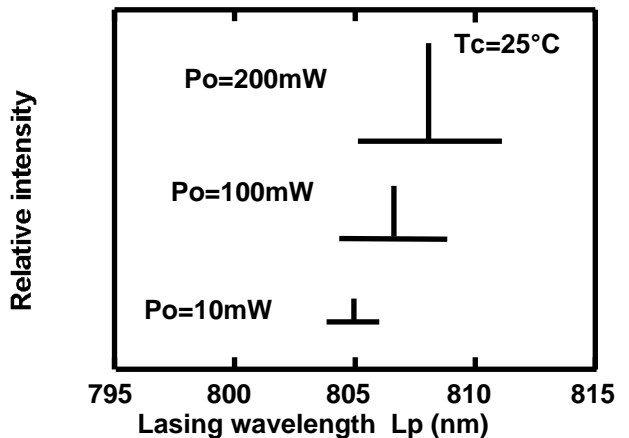
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



This is typical data and it may not represent all products.