

INFRARED LASER DIODE

DL-8032-001

SANYO

Ver.4 Apr. 1999

Features

- Lasing wavelength : 830 nm (Typ.)
- High output power : 150 mW at 50°C
- Low threshold current : I_{th} = 50 mA (Typ.)

Applications

- Bar-code scanner
- Laser beam printer

Absolute Maximum Ratings

(T_c=25°C)

| Parameter | | Symbol | Ratings | Unit |
|-----------------------|-------|------------------|------------|------|
| Light Output | CW | P _o | 150 | 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 |

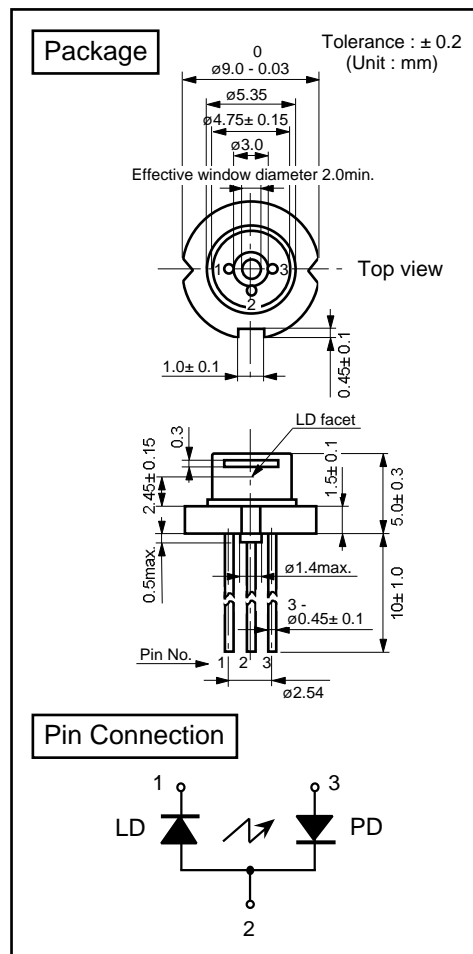
Electrical and Optical Characteristics

(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 =150mW | - | 185 | 220 | mA |
| Operating Voltage | | V _{op} | P _o =150mW | - | 1.8 | 2.2 | V |
| Lasing Wavelength | | L _p | P _o =150mW | 815 | 830 | 840 | nm |
| Beam ¹⁾ Divergence | Perpendicular | Q _v | P _o =150mW | 12 | 18 | 25 | ° |
| | Parallel | Q _h | P _o =150mW | 5 | 7 | 11 | ° |
| Off Axis Angle | Perpendicular | dA _v | - | - | - | ± 3 | ° |
| | Parallel | dQ _h | - | - | - | ± 3 | ° |
| Differential Efficiency | | dP _o /dI _{op} | - | 0.7 | 1.0 | - | mW/mA |
| Monitoring Output Current | | I _m | P _o =150mW | 0.15 | 0.5 | 2.0 | mA |
| Astigmatism | | A _c | P _o =150mW | - | 10 | - | μm |

1) Full angle at half maximum

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

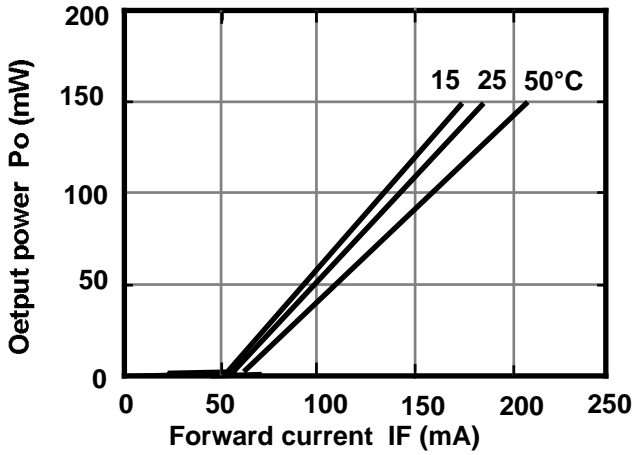


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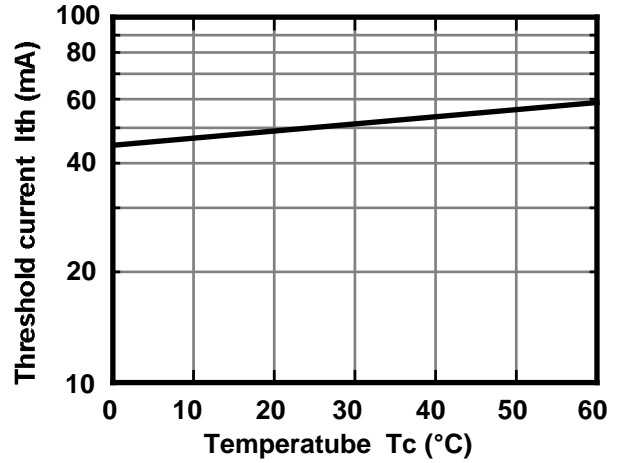


Characteristics

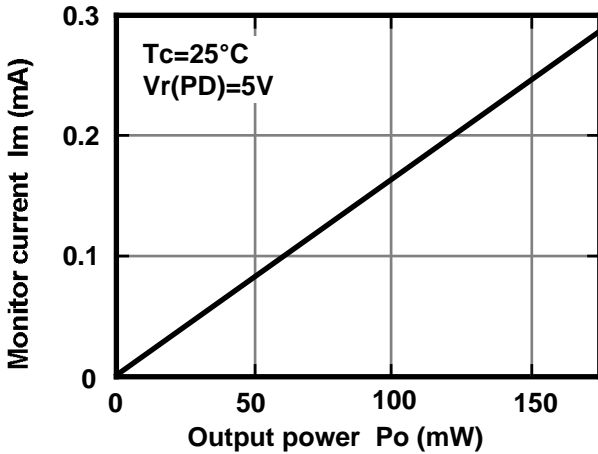
Output power vs. Forward current



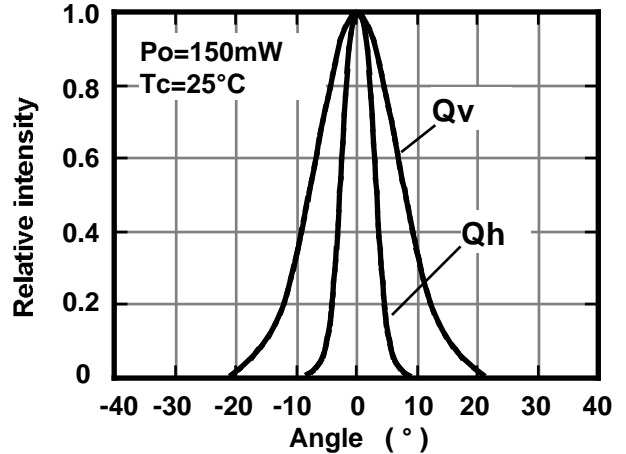
Threshold current vs. Temperature



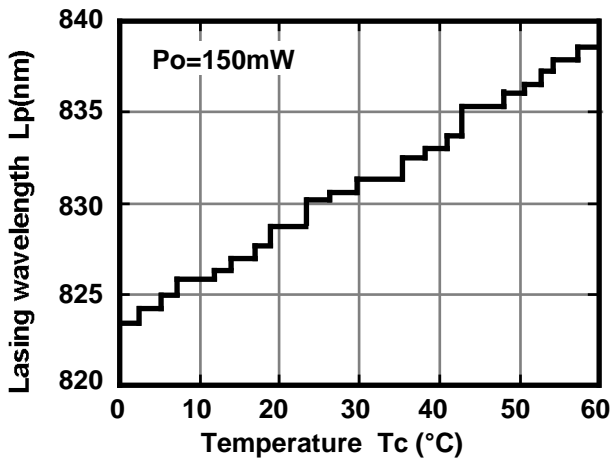
Monitor current vs. Output power



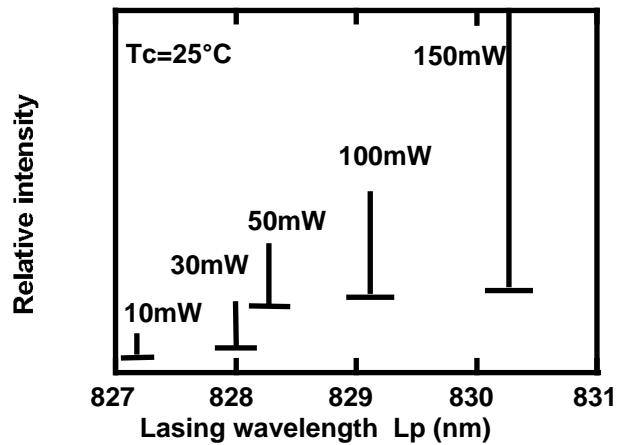
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



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