# RED LASER DIODE

# DL-3148-025

SANYO

**Ver.1 Mar. 2002**

## Features

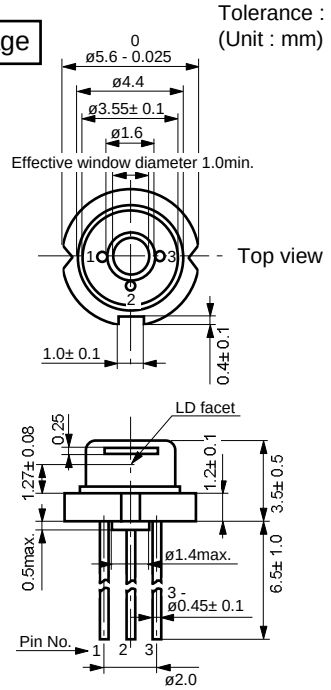
- Short wavelength : 635 nm (Typ.)
- Output power : 5mW CW
- Low threshold current : Ith = 20 mA (Typ.)
- Low operating voltage : Vop = 2.2 V (Typ.)
- Small package : ø5.6 mm

## Applications

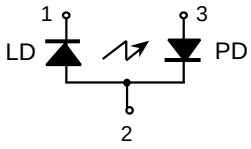
Laser pointer

## Package

Tolerance : ± 0.2
(Unit : mm)




## Pin Connection




## Absolute Maximum Ratings

(Tc=25°C)

| Parameter | | Symbol | Ratings | Unit |
|---|---|---|---|---|
| Light Output | CW | Po | 6 | mW |
| Reverse Voltage | Laser | VR | 2 | V |
| | PD | | 30 | |
| Operating Temperature | | Topr | -10 to +40 | °C |
| Storage Temperature | | Tstg | -40 to +85 | °C |

## Electrical and Optical Characteristics [1) 2)]

(Tc=25°C)

| Parameter | | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| Threshold Current | | Ith | CW | - | 20 | 35 | mA |
| Operating Current | | Iop | Po=5mW | - | 30 | 45 | mA |
| Operating Voltage | | Vop | Po=5mW | - | 2.2 | 2.4 | V |
| Lasing Wavelength | | Lp | Po=5mW | 630 | 635 | 640 | nm |
| Beam Divergence [3)] | Perpendicular | Qv | Po=5mW | 25 | 30 | 35 | ° |
| | Parallel | Qh | Po=5mW | 6 | 8 | 10 | ° |
| Off Axis Angle | Perpendicular | dQv | - | - | - | ± 3 | ° |
| | Parallel | dQh | - | - | - | ± 3 | ° |
| Differential Efficiency | | dPo/dIop | - | - | 0.5 | - | mW/mA |
| Monitoring Output Current | | Im | Po=5mW | 0.08 | 0.2 | 0.5 | mA |
| Astigmatism | | As | Po=5mW | - | 8 | - | µm |

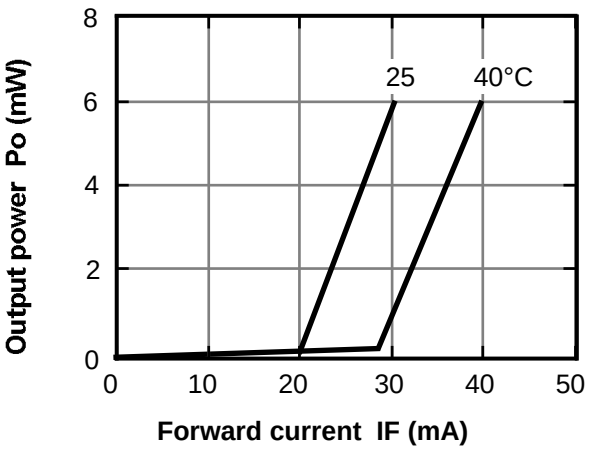
1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
3) Full angle at half maximum

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

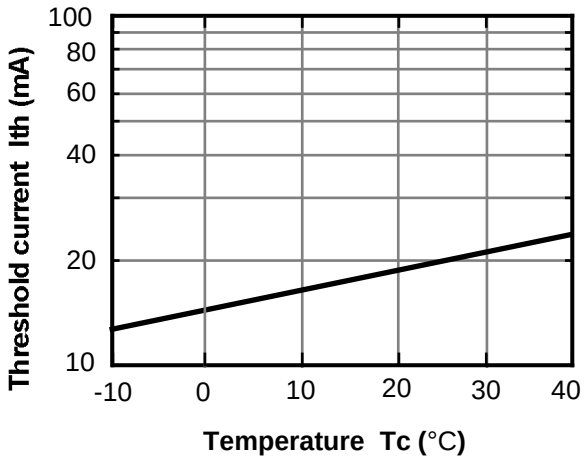

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# Characteristics

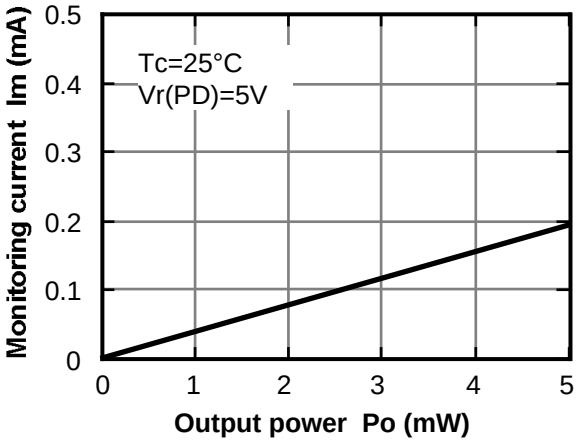
### Output power vs. Forward current



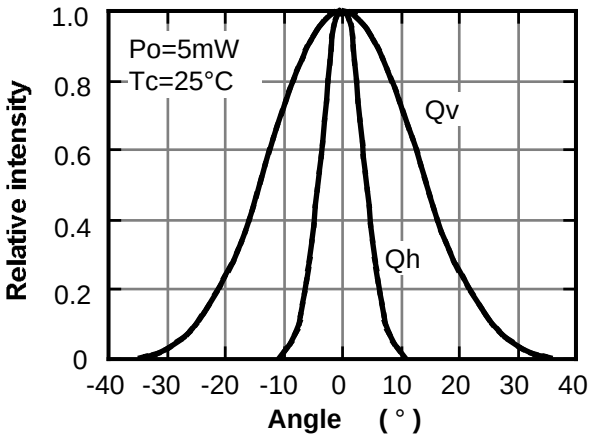

### Threshold current vs. Temperature



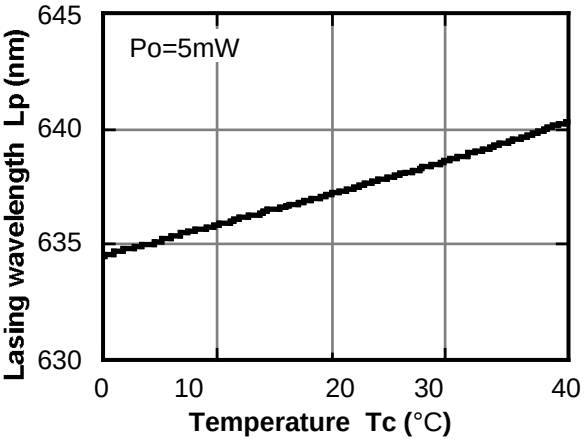

### Monitoring current vs. Output power



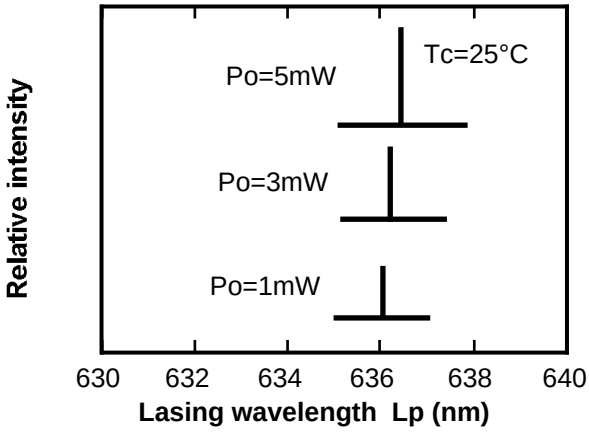

### Beam divergence




### Lasing wavelength vs. Temperature




### Lasing wavelength vs. Output power




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