

# RED LASER DIODE

## DL-7147-201

# SANYO

Ver.2 JUN. 2003

### Features

- wavelength : 658 nm (Typ.)
- High output power : 100 mW at 75°C (pulse)
- Low threshold current : I<sub>th</sub> = 40 mA (Typ.)
- Small package :  $\phi$ 5.6 mm
- TE mode

### Applications

- DVD-R/ $\pm$ RW/RAM

### Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub> (CW)	60	mW
	Pulse <sup>1)</sup>	P <sub>o</sub> (pulse)	100	
Reverse Voltage	Laser	V <sub>R</sub>	2	V
Operating Temperature		T <sub>opr</sub>	-10 to +75	°C
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C

1) Pulse Width 0.1 $\mu$ s, Duty 50%

### Electrical and Optical Characteristics<sup>2) 3)</sup>

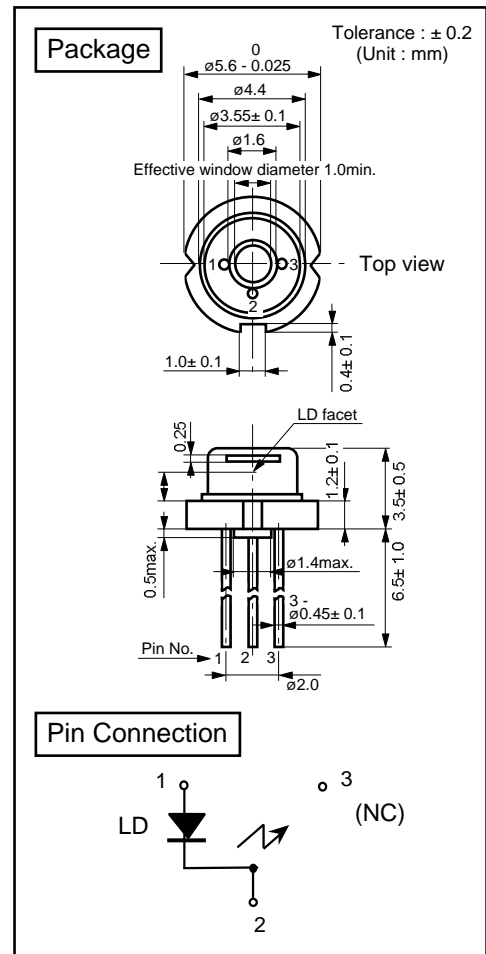
(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	40	50	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =50mW	-	90	120	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =50mW	-	2.5	3.0	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =50mW	-	658	662	nm
Beam <sup>4)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =50mW	15	16	20	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =50mW	7.5	9	11	°
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	-	-	-	$\pm$ 2	°
	Parallel	dQ <sub>h</sub>	-	-	-	$\pm$ 2	°
Differential Efficiency		dP <sub>o</sub> /dI <sub>op</sub>	-	-	1.1	-	mW/mA
Astigmatism		A <sub>s</sub>	P <sub>o</sub> =50mW	-	1	-	$\mu$ m

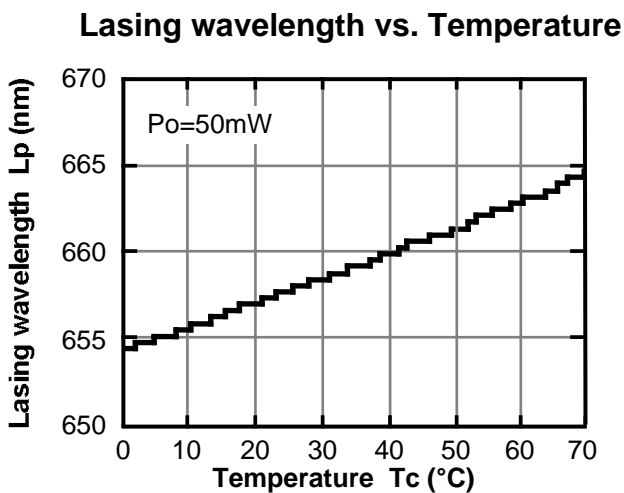
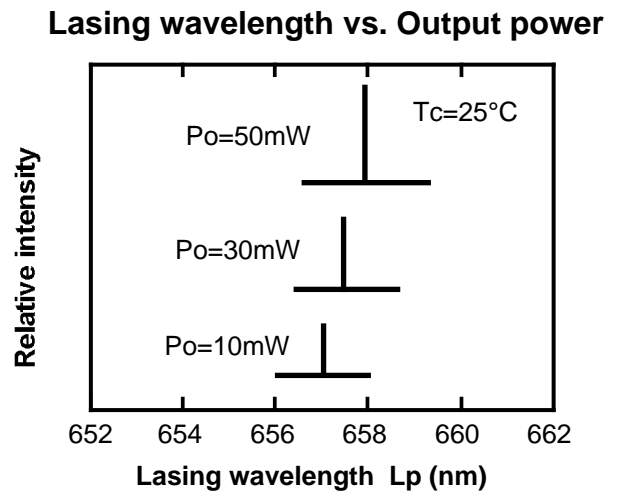
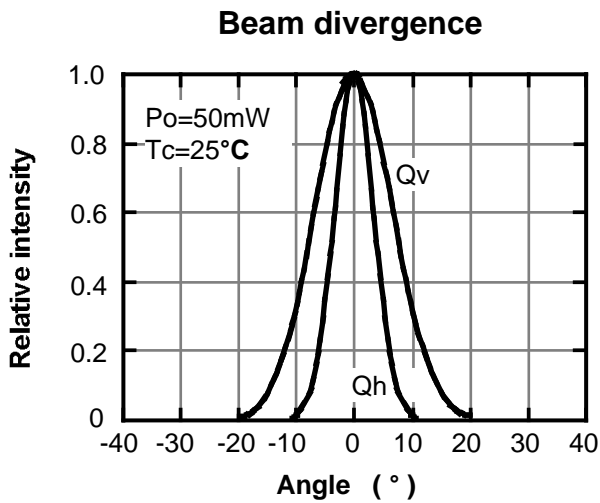
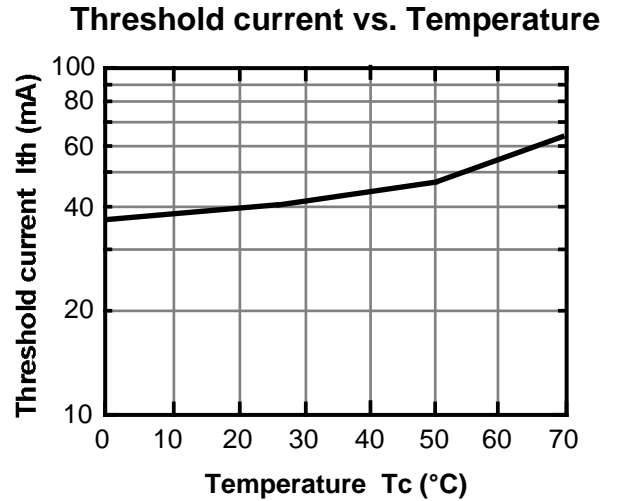
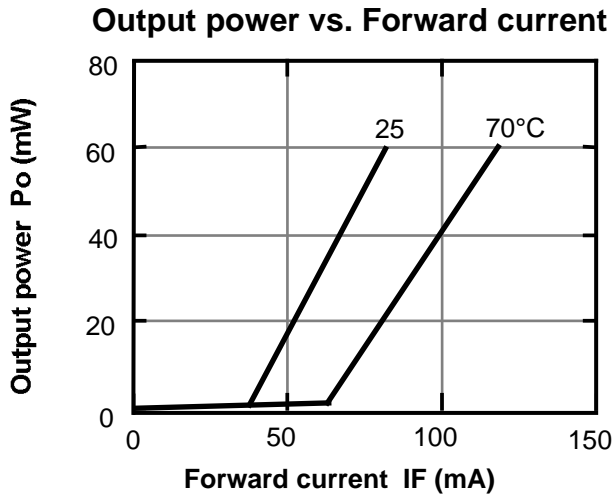
2) Initial values 3) All the above values are evaluated with Tottori Sanyo's measuring apparatus

4) Full angle at half maximum

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



## Characteristics



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