

# RED LASER DIODE

## DL-6147-240

# SANYO

Ver.2 .May. 2005

### Features

- Short wavelength : 658 nm (Typ.)
- High output power : 40 mW at 60°C (CW)
- Low threshold current : I<sub>th</sub> = 30 mA (Typ.)
- Package : ø5.6 mm

### Applications

Industrial equipment

### Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub> (CW)	45	mW
	Pulse <sup>1)</sup>	P <sub>o</sub> (pulse)	60	
Reverse Voltage	Laser	V <sub>R</sub>	2	V
	PD		30	
Operating Temperature	T <sub>opr</sub>	-10 to +60	°C	
Storage Temperature	T <sub>stg</sub>	-40 to +85	°C	

1) Pulse Width 1.0μs, Duty 50%

### Electrical and Optical Characteristics

2) 3)

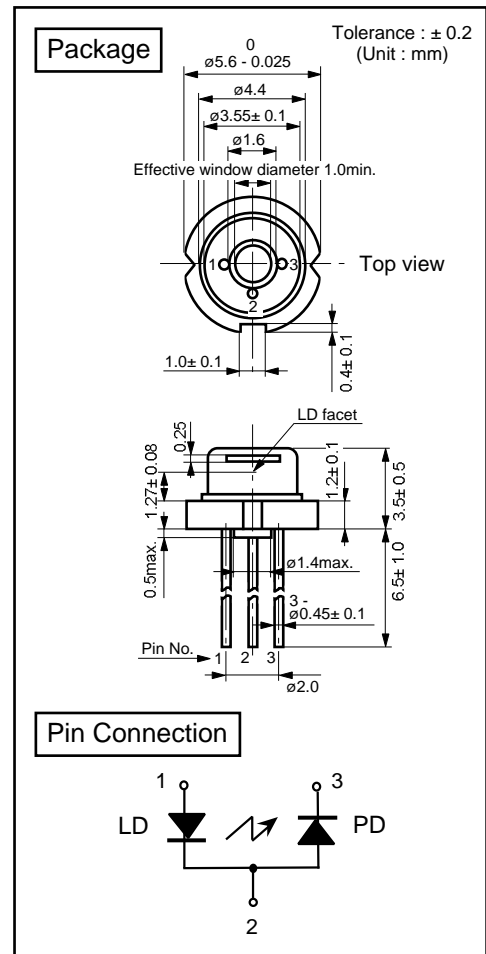
(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	30	50	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =40mW	-	65	85	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =40mW	-	2.4	2.8	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =40mW	650	658	665	nm
Beam <sup>4)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =40mW	12	16	20	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =40mW	7	10	13	°
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	-	-3	-	3	°
	Parallel	dQ <sub>h</sub>	-	-3	-	3	°
Differential Efficiency		SE	-	-	1.1	-	mW/mA
Monitoring Output Current		I <sub>m</sub>	P <sub>o</sub> =40mW	0.15	0.35	0.55	mA

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

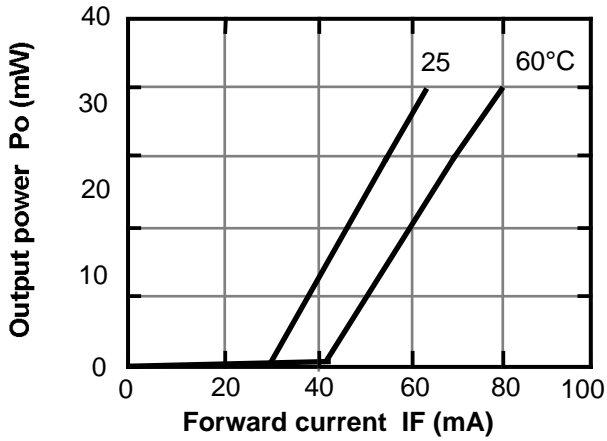
4) Full angle at half maximum

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

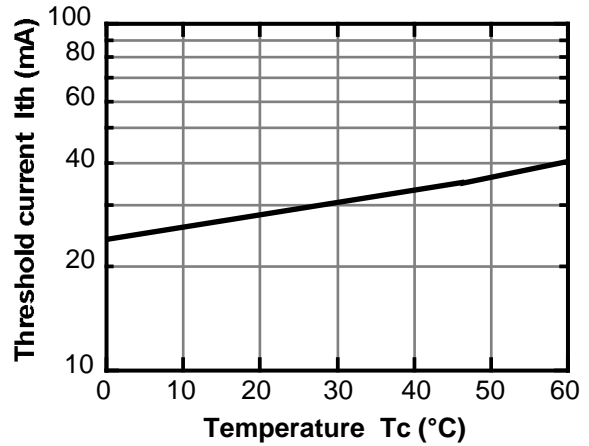


## Characteristics

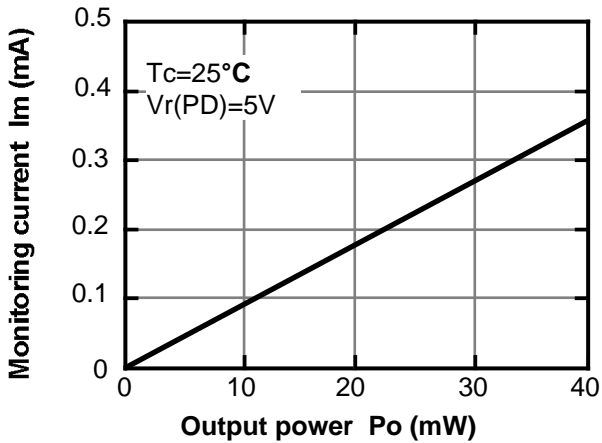
Output power vs. Forward current



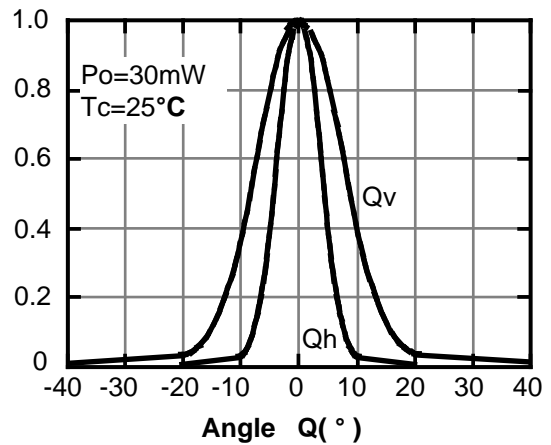
Threshold current vs. Temperature



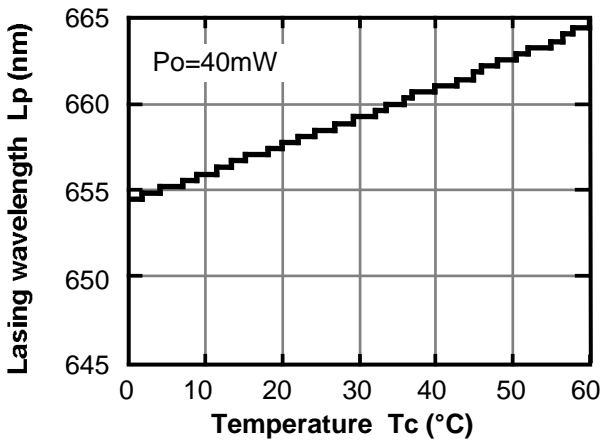
Monitoring current vs. Output power



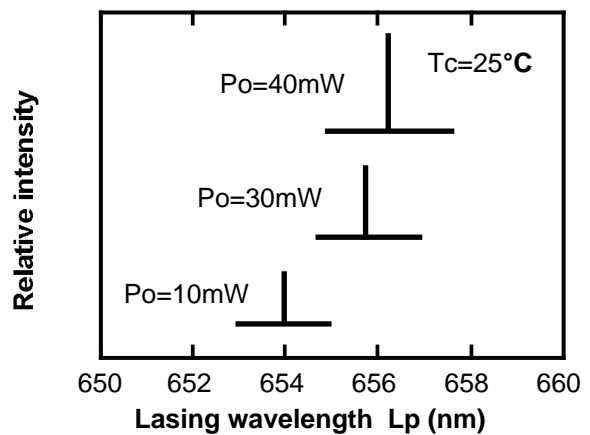
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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