

# RED LASER DIODE

## DL-3147-165



Ver.4 July. 1999

### Features

- Short wavelength : 650 nm (Typ.)
- Low threshold current : I<sub>th</sub> = 25mA (Typ.)
- High operating temperature : 5 mW at 70°C
- TE mode

### Applications

DVD-ROM/PLAYER

### Absolute Maximum Ratings

(T<sub>c</sub>=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P <sub>o</sub>	7	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		T <sub>opr</sub>	-10 to +70	°C
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C

### Electrical and Optical Characteristics <sup>1) 2)</sup>

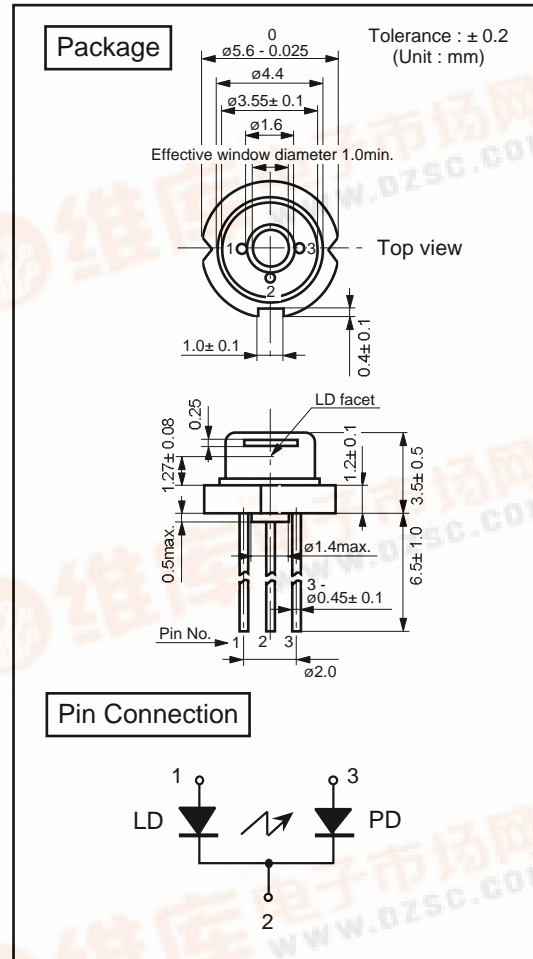
(T<sub>c</sub>=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I <sub>th</sub>	CW	-	25	40	mA
Operating Current		I <sub>op</sub>	P <sub>o</sub> =5mW	-	35	50	mA
Operating Voltage		V <sub>op</sub>	P <sub>o</sub> =5mW	-	2.3	2.6	V
Lasing Wavelength		L <sub>p</sub>	P <sub>o</sub> =5mW	645	650	660	nm
Beam <sup>3)</sup> Divergence	Perpendicular	Q <sub>v</sub>	P <sub>o</sub> =5mW	25	30	35	°
	Parallel	Q <sub>h</sub>	P <sub>o</sub> =5mW	7.0	8.0	10	°
Off Axis Angle	Perpendicular	dQ <sub>v</sub>	-	-	-	± 3	°
	Parallel	dQ <sub>h</sub>	-	-	-	± 2	°
Differential Efficiency		dP <sub>o</sub> /dI <sub>op</sub>	-	0.3	0.5	0.8	mW/mA
Monitoring Output Current		I <sub>m</sub>	P <sub>o</sub> =5mW	0.08	0.2	0.4	mA
Astigmatism		A <sub>s</sub>	P <sub>o</sub> =5mW	-	8	-	μm

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

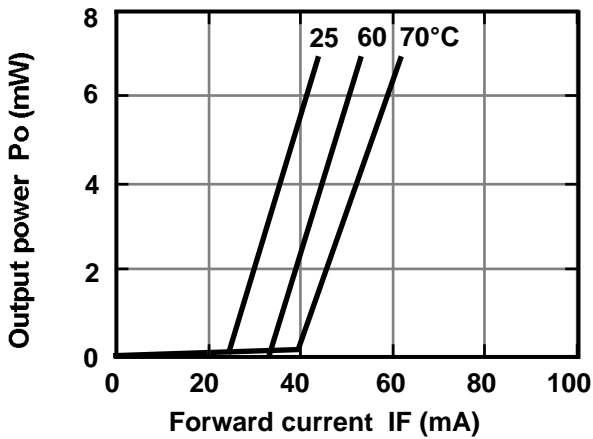
3) Full angle at half maximum

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

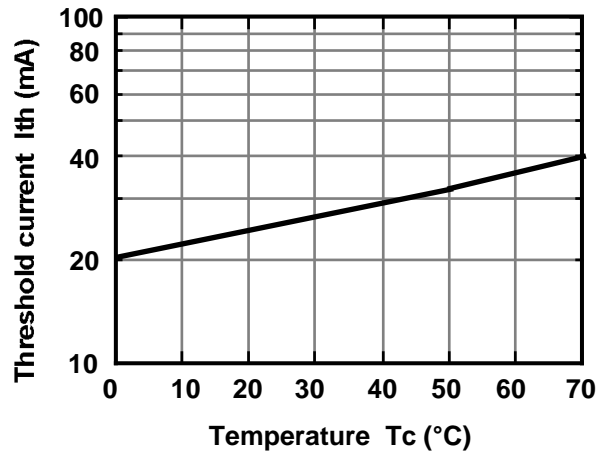


## Characteristics

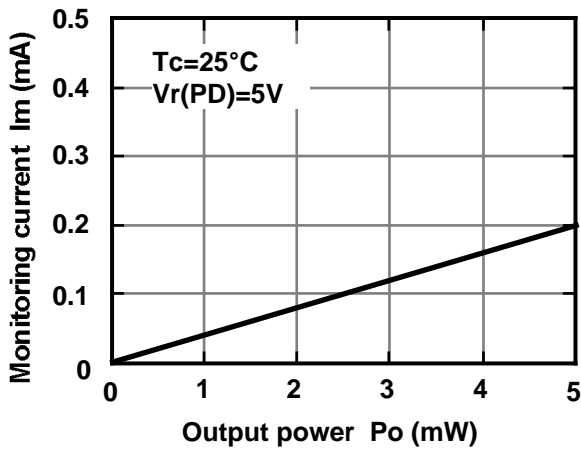
Output power vs. Forward current



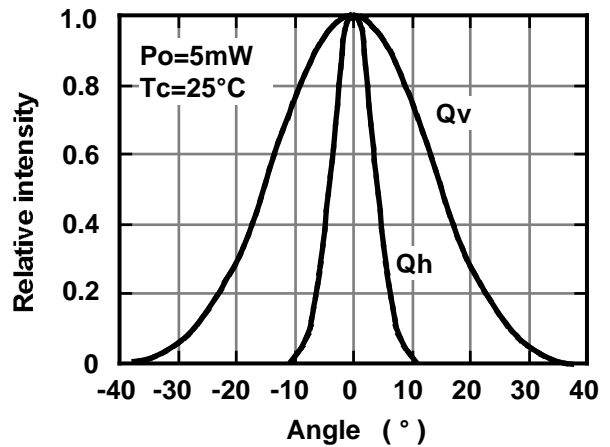
Threshold current vs. Temperature



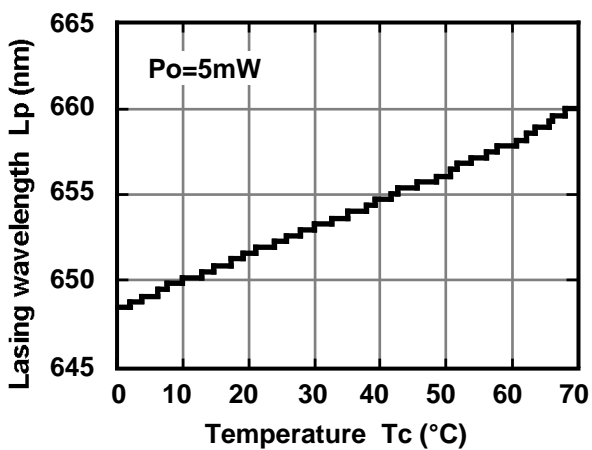
Monitoring current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

