RED LASER DIODE

DL-LS1148

Tentative

SANYO

Ver.4 Feb. 2006

Features

- Short wavelength : 638 nm (Typ.)
- High output power : 40 mW (CW)
- Low threshold current : Ith = 60 mA (Typ.)
- Low operating voltage : Vop = 2.4V (Typ.)

Applications

Laser Display
Line marker
Leveler

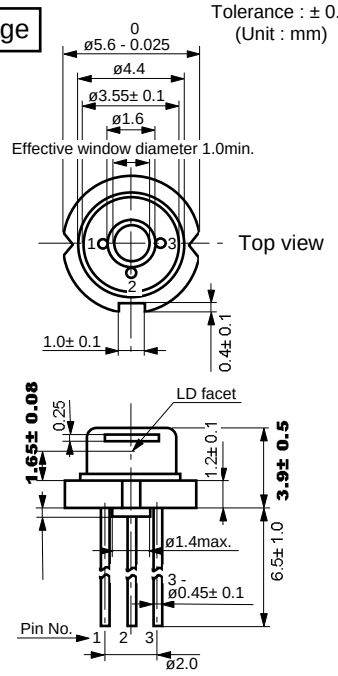
Absolute Maximum Ratings

(Tc=25°C)

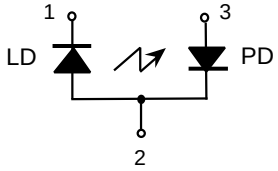
Parameter		Symbol	Ratings	Unit
Light Output	CW	Po (CW)	40	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		Topr	-10 to +50	°C
Storage Temperature		Tstg	-40 to +85	°C

Package

Tolerance : ± 0.2
(Unit : mm)



Pin Connection



Electrical and Optical Characteristics 1) 2)

(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	60	85	mA
Operating Current		Iop	Po=40mW	-	100	130	mA
Operating Voltage		Vop	Po=40mW	-	2.4	2.7	V
Lasing Wavelength		Lp	Po=40mW	635	638	645	nm
Beam Divergence 3)	Perpendicular	Qv	Po=40mW	12	16	22	°
	Parallel	Qh	Po=40mW	6.5	8.5	12	°
Off Axis Angle	Perpendicular	dQv	-	-3	-	3	°
	Parallel	dQh	-	-3	-	3	°
Differential Efficiency		SE	-	0.8	1.0	1.2	mW/mA
Monitoring Output Current		Im	Po=40mW	0.3	0.6	0.9	mA

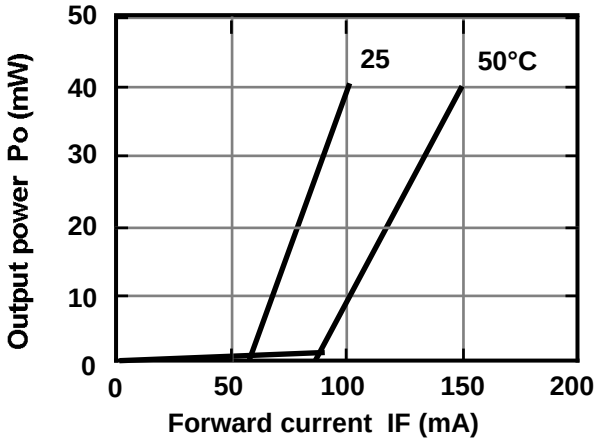
1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
3) Full angle at half maximum

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

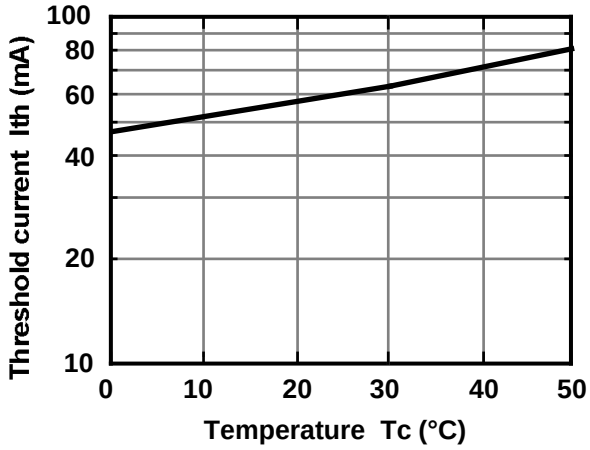
Tottori SANYO Electric Co., Ltd. Photonics Business Unit
5-318, Tachikawa, Tottori 680-8634 Japan TEL : +81-857-21-2137 FAX : +81-857-21-2161

Characteristics

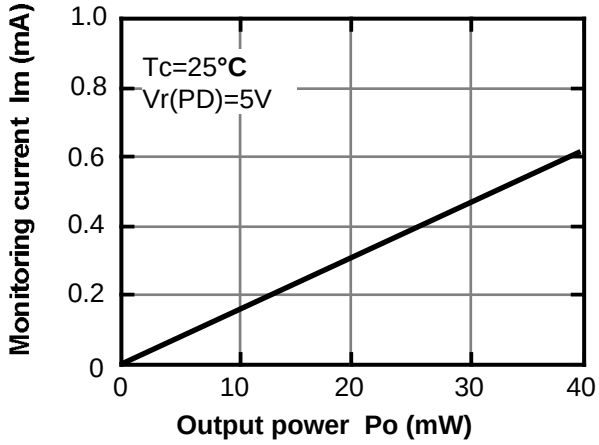
Output power vs. Forward current



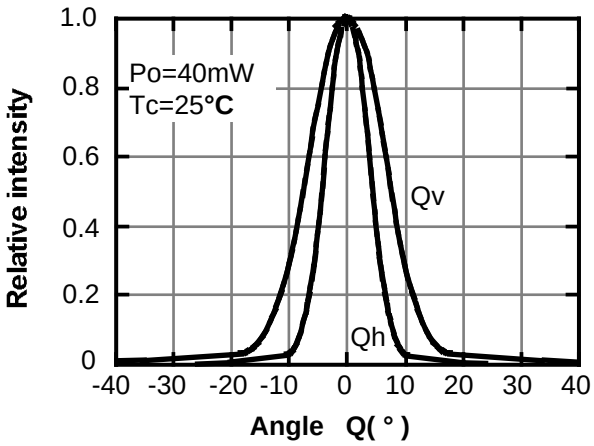
Threshold current vs. Temperature



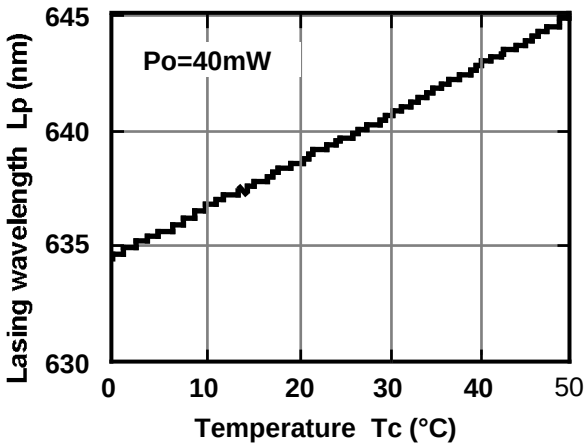
Monitoring current vs. Output power



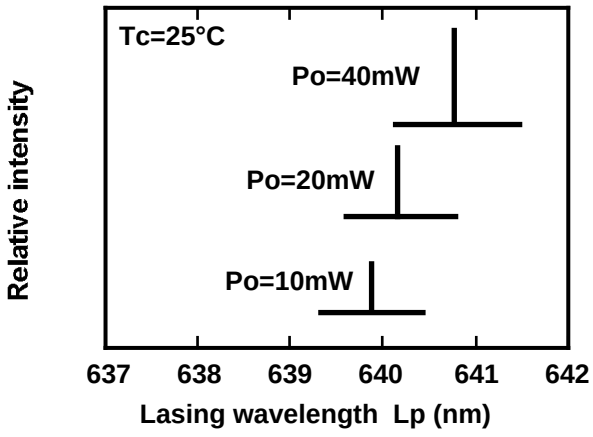
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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