

INFRARED LASER DIODE

DL-LS2075



Ver.3 Sep. 2005

Features

- Lasing wavelength : 808 nm (Typ.)
- Single longitudinal mode
- High output power : 200 mW at 50°C
- Low threshold current : $I_{th} = 50$ mA (Typ.)
- Fundamental transverse mode
- Package : $\phi 5.6$ mm

Applications

- Solid state laser pumping

Usage condition

- CW: <200mW

Absolute Maximum Ratings

($T_c=25^\circ\text{C}$)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P_o	210	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		T_{opr}	-10 to +50	$^\circ\text{C}$
Storage Temperature		T_{stg}	-40 to +85	$^\circ\text{C}$

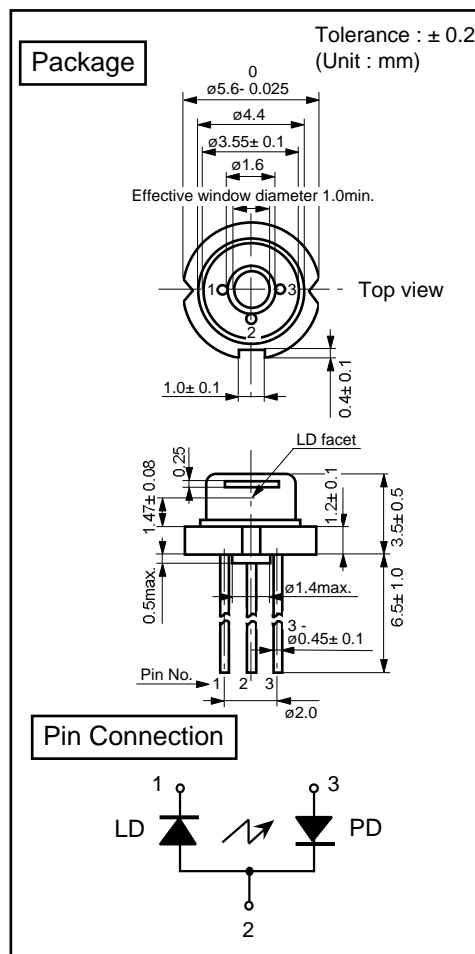
Electrical and Optical Characteristics ^{1) 2)}

($T_c=25^\circ\text{C}$)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I_{th}	CW	-	50	70	mA
Operating Current		I_{op}	$P_o=200\text{mW}$	-	230	260	mA
Operating Voltage		V_{op}	$P_o=200\text{mW}$	-	2.0	2.4	V
Lasing Wavelength		L_p	$P_o=200\text{mW}$	798	808	818	nm
Beam ³⁾ Divergence	Perpendicular	Qv	$P_o=200\text{mW}$	12	16	20	$^\circ$
	Parallel	Qh	$P_o=200\text{mW}$	6	8	10	$^\circ$
Off Axis Angle	Perpendicular	dQv	-	-3	-	3	$^\circ$
	Parallel	dQh	-	-3	-	3	$^\circ$
Differential Efficiency		SE	-	0.8	1.2	-	mW/mA
Monitoring Output Current		I_m	$P_o=200\text{mW}$	0.15	0.5	0.9	mA

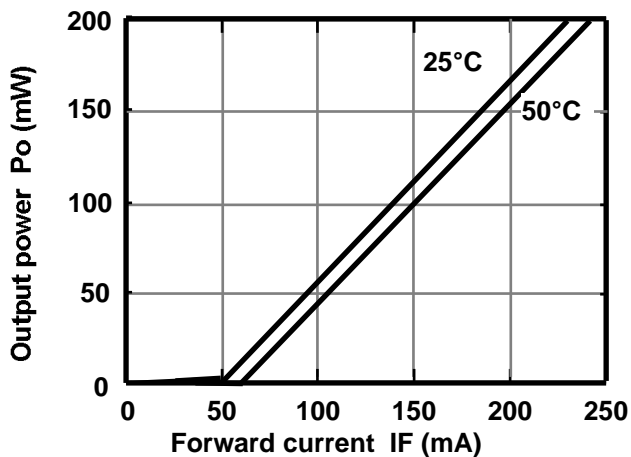
- 1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
 3) Full angle at half maximum

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

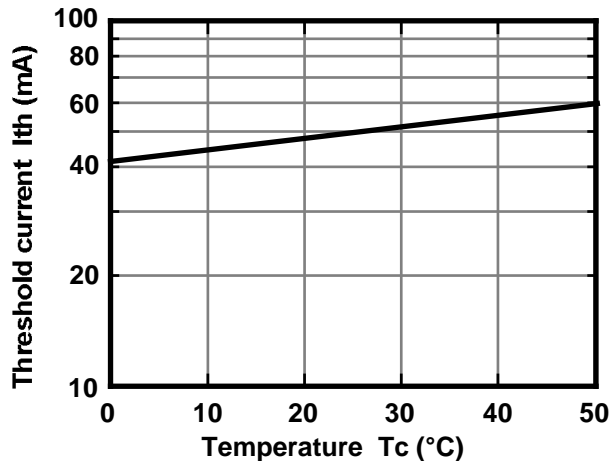


Characteristics

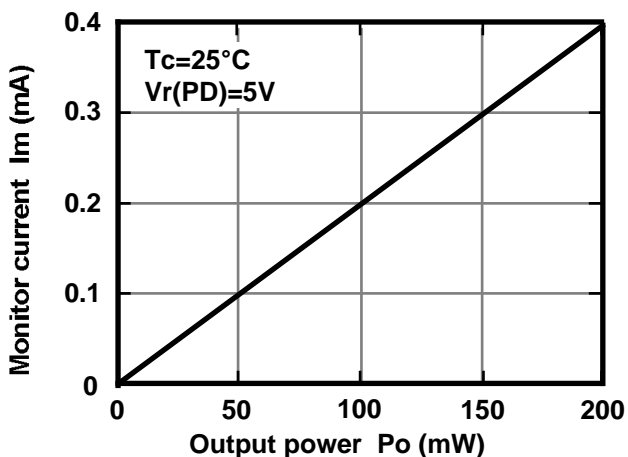
Output power vs. Forward current



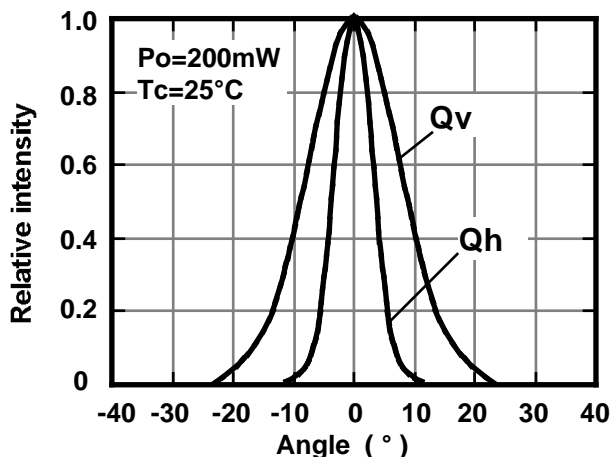
Threshold current vs. Temperature



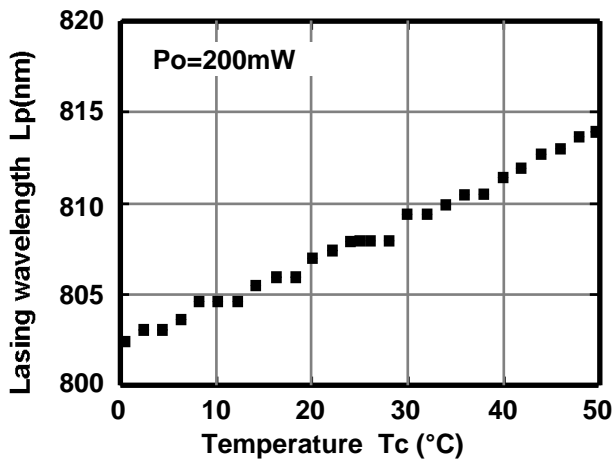
Monitor current vs. Output power



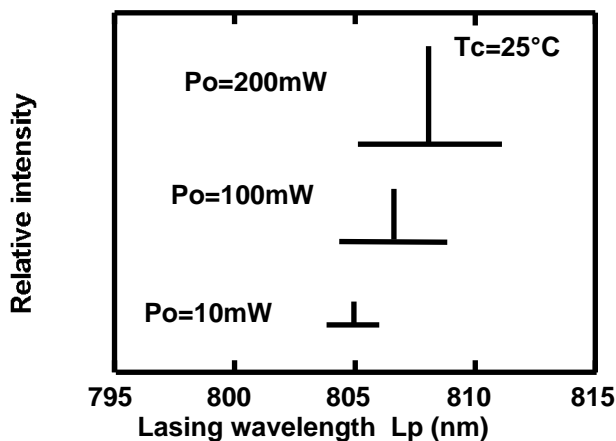
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



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