

INFRARED LASER DIODE

DL-8141-002



Ver.1 Feb. 2007

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

Absolute Maximum Ratings

(T_c=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P _o	210	mW
Reverse Voltage	Laser	V _R	2	V
	PD		30	
Operating Temperature		T _{opr}	-10 to +50	°C
Storage Temperature		T _{stg}	-40 to +85	°C

Standard usage condition

- Max. 200mW (at CW operation)

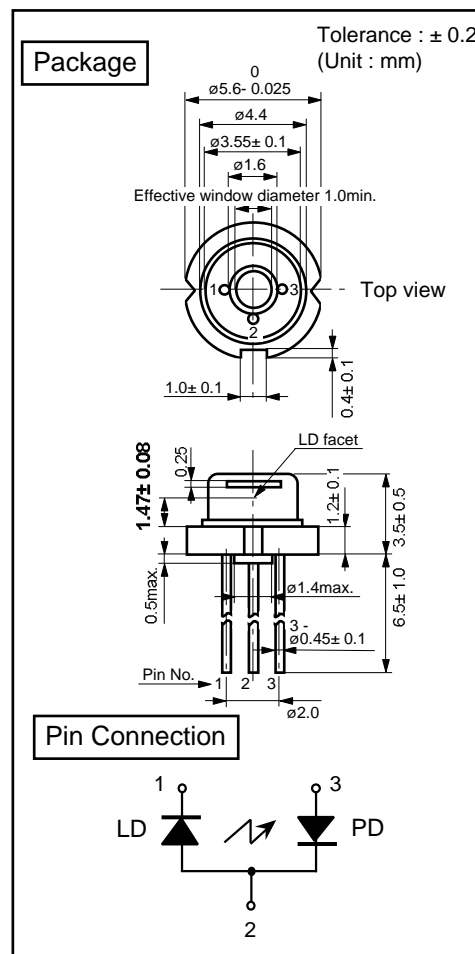
Electrical and Optical Characteristics ^{1) 2)}

(T_c=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I _{th}	CW	-	50	70	mA
Operating Current		I _{op}	P _o =200mW	-	230	260	mA
Operating Voltage		V _{op}	P _o =200mW	-	2.0	2.4	V
Lasing Wavelength		L _p	P _o =200mW	798	808	818	nm
Beam ³⁾ Divergence	Perpendicular	Q _v	P _o =200mW	12	16	20	°
	Parallel	Q _h	P _o =200mW	6	8	10	°
Off Axis Angle	Perpendicular	dQ _v	-	-3	-	3	°
	Parallel	dQ _h	-	-3	-	3	°
Differential Efficiency		SE	-	0.8	1.2	-	mW/mA
Monitoring Output Current		I _m	P _o =200mW	0.15	0.5	0.9	mA

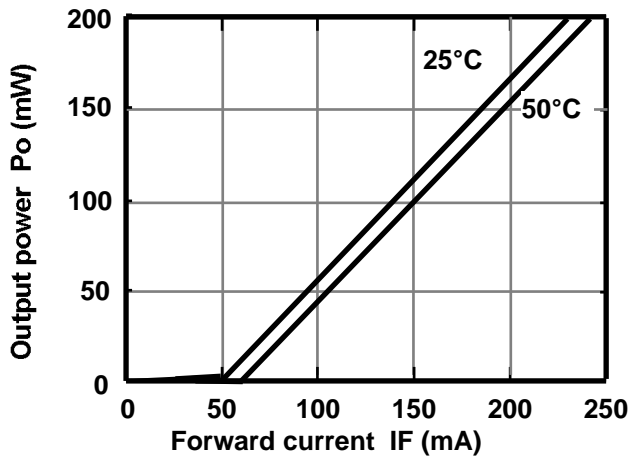
- 1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus
 3) Full angle at half maximum

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

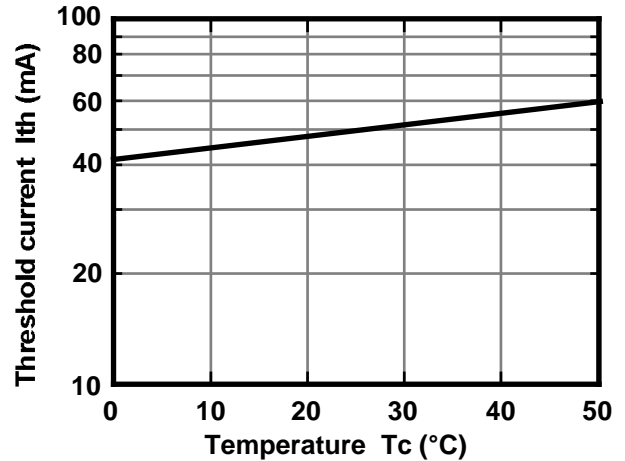


Characteristics

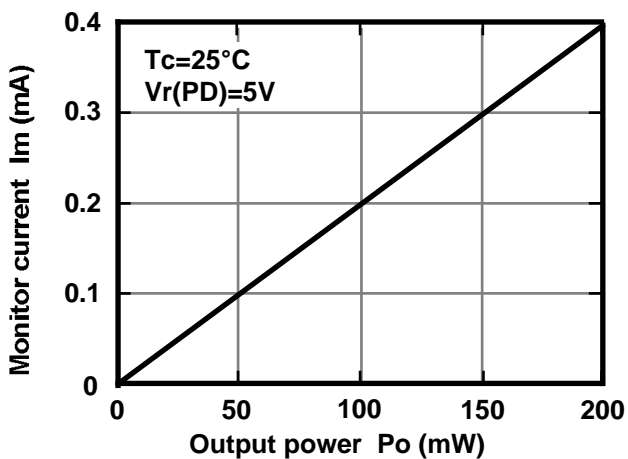
Output power vs. Forward current



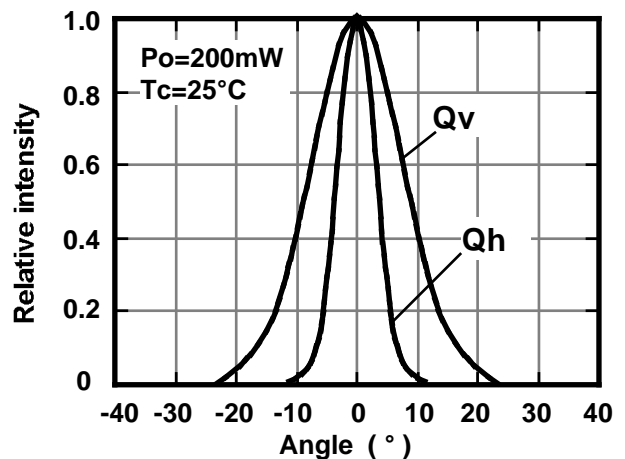
Threshold current vs. Temperature



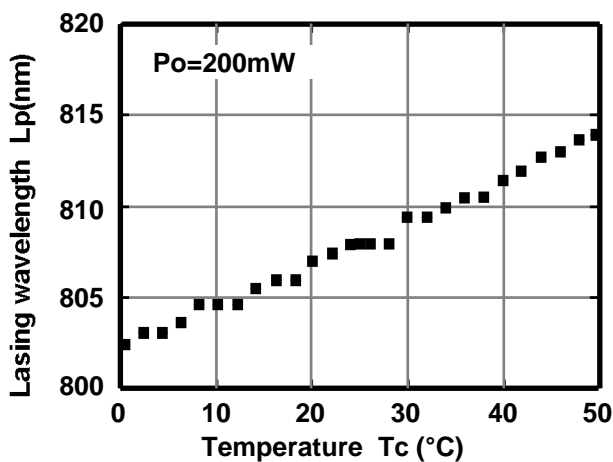
Monitor current vs. Output power



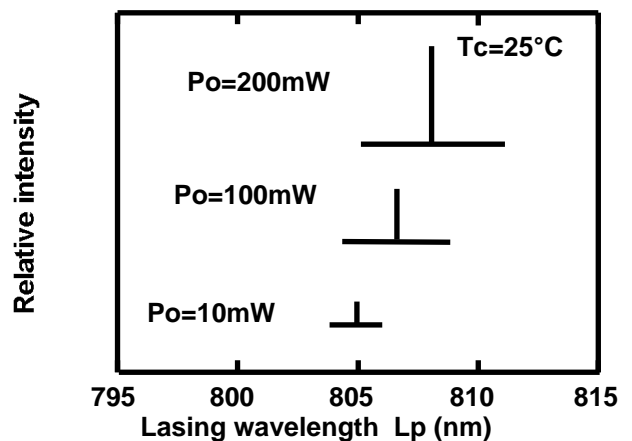
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



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