RED LASER DIODE

DL-3148-037

Ver.1 May. 2003

Features

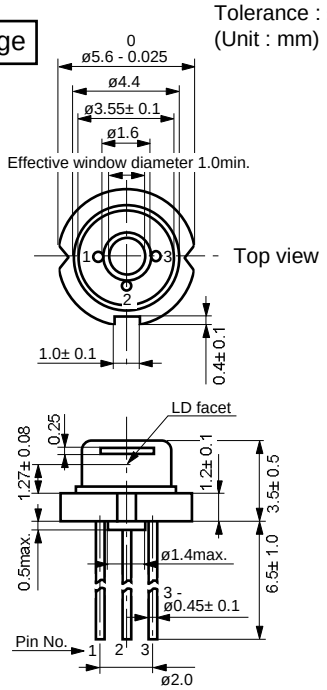
- Short wavelength : 635 nm (Typ.)
- Output power : 5mW CW
- Low threshold current : Ith = 20 mA (Typ.)
- Low operating voltage : Vop = 2.3 V (Typ.)
- Small package : ø5.6 mm

Applications

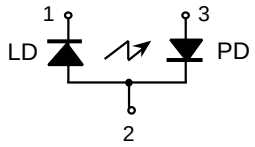
Laser module

Package

Tolerance : ± 0.2
(Unit : mm)



Pin Connection



Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	7	mW
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		Topr	-10 to +50	°C
Storage Temperature		Tstg	-40 to +85	°C

Electrical and Optical Characteristics 1) 2)

(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	20	40	mA
Operating Current		Iop	Po=5mW	-	30	50	mA
Operating Voltage		Vop	Po=5mW	-	2.3	2.5	V
Lasing Wavelength		Lp	Po=5mW	630	635	640	nm
Beam Divergence 3)	Perpendicular	Qv	Po=5mW	25	30	35	°
	Parallel	Qh	Po=5mW	6	8	10	°
Off Axis Angle	Perpendicular	dQv	-	-	-	± 3	°
	Parallel	dQh	-	-	-	± 3	°
Differential Efficiency		dPo/dIop	-	-	0.5	-	mW/mA
Monitoring Output Current		Im	Po=5mW	0.1	0.25	0.4	mA
Astigmatism		As	Po=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.

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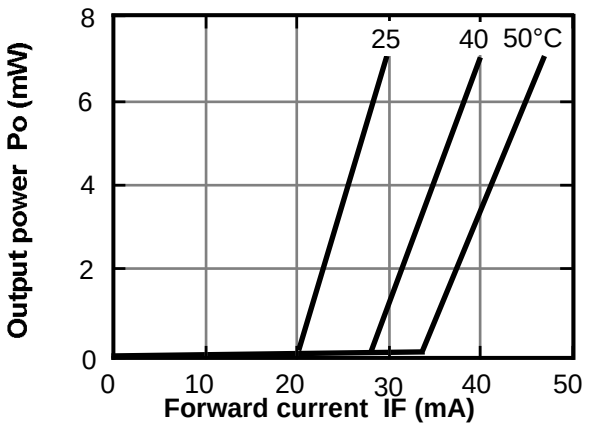
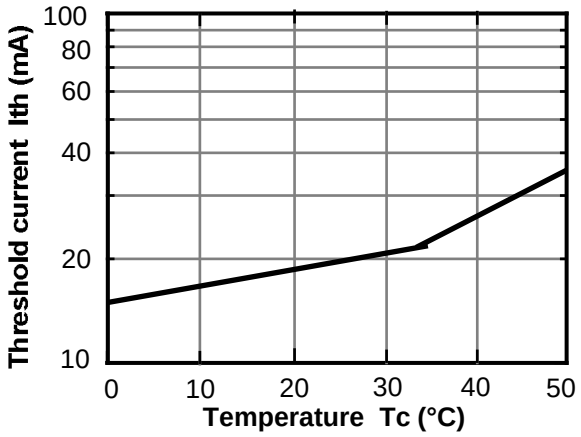
Characteristics

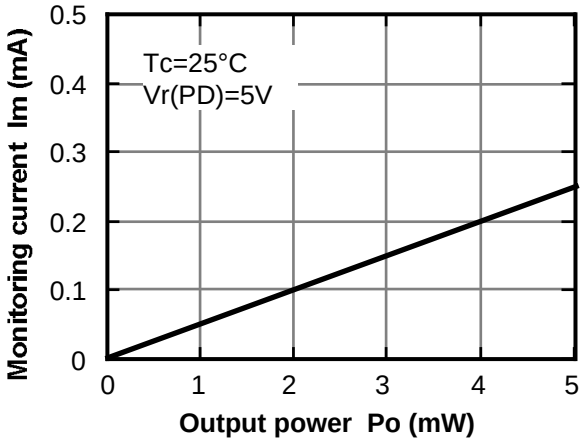
Output power vs. Forward current



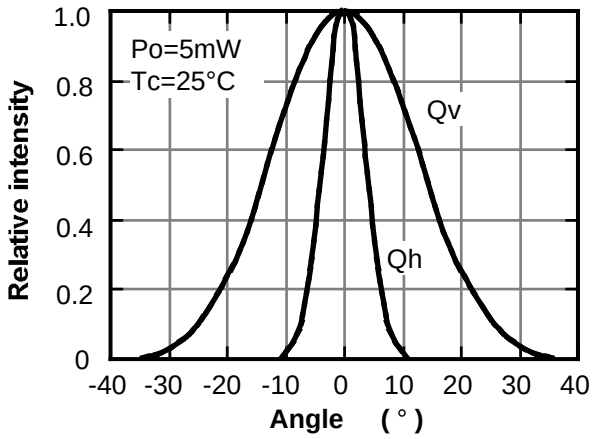
Threshold current vs. Temperature



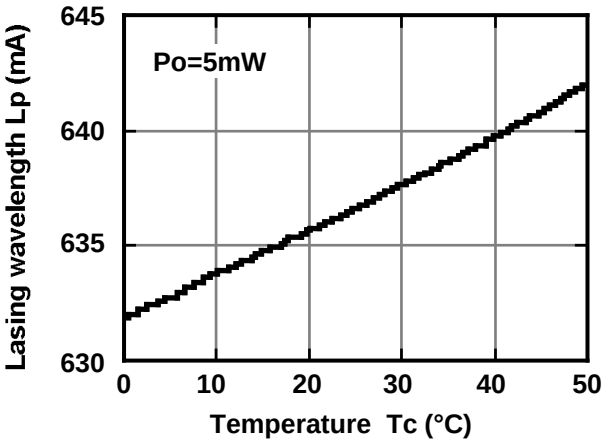
Monitoring current vs. Output power



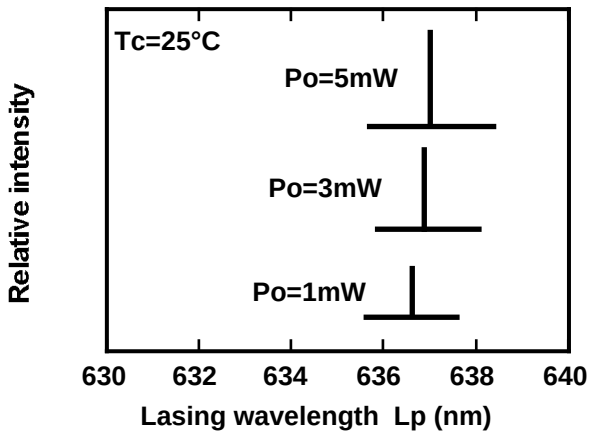
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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