RED LASER DIODE

DL-5147-042

SANYO

Ver.1 July. 2002

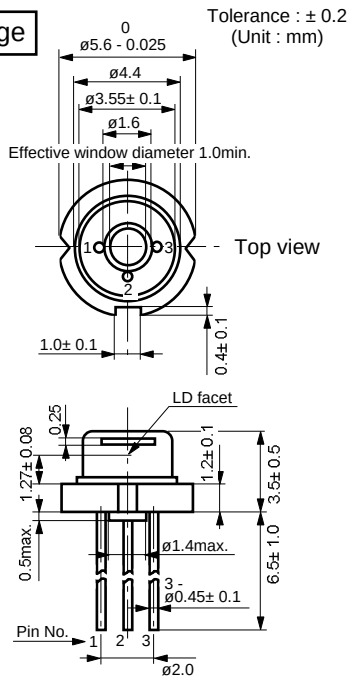
Features

- Short wavelength : 655 nm (Typ.)
- High output power : 30 mW at 60°C (CW)
- Low threshold current : Ith = 40 mA (Typ.)
- Small package : ø5.6 mm
- TE mode

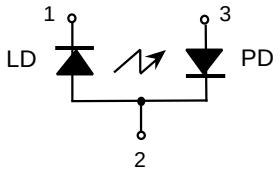
Applications

Bar-code scanner

Package



Pin Connection



Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po (CW)	30	mW
	Pulse[1)]	Po(pulse)	50	
Reverse Voltage	Laser	VR	2	V
	PD		30	
Operating Temperature		Topr	-10 to +60	°C
Storage Temperature		Tstg	-40 to +85	°C

1) Pulse Width 0.5µs, Duty 50%

Electrical and Optical Characteristics 2) 3)

(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	40	50	mA
Operating Current		Iop	Po=30mW	-	80	110	mA
Operating Voltage		Vop	Po=30mW	-	2.4	2.8	V
Lasing Wavelength		Lp	Po=30mW	-	655	665	nm
Beam Divergence 4)	Perpendicular	Qv	Po=30mW	15	23	28	°
	Parallel	Qh	Po=30mW	6	7	10	°
Off Axis Angle	Perpendicular	dQv	-	-	-	± 3	°
	Parallel	dQh	-	-	-	± 3	°
Differential Efficiency		dPo/dIop	-	-	0.75	-	mW/mA
Monitoring Output Current		Im 5)	Po=30mW	0,1	0.3	-	mA
Astigmatism		As	Po=30mW	-	10	-	µm

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

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

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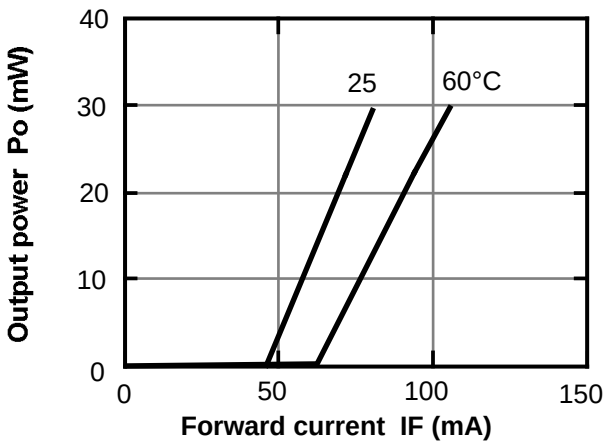
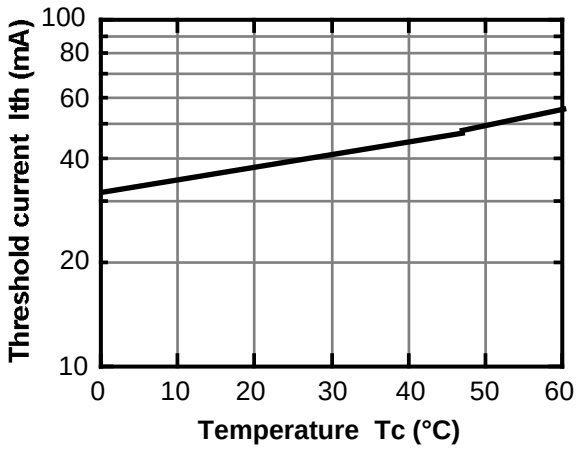
Characteristics

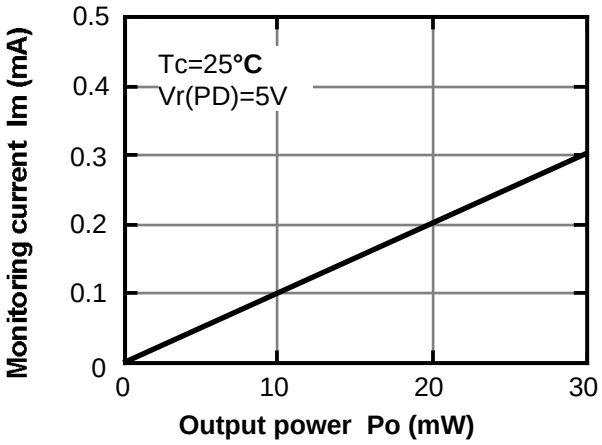
Output power vs. Forward current



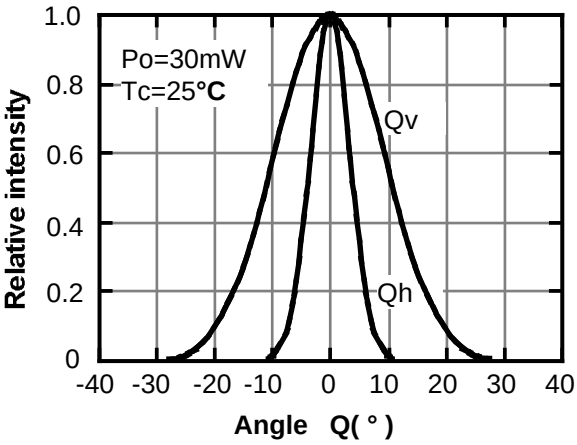
Threshold current vs. Temperature



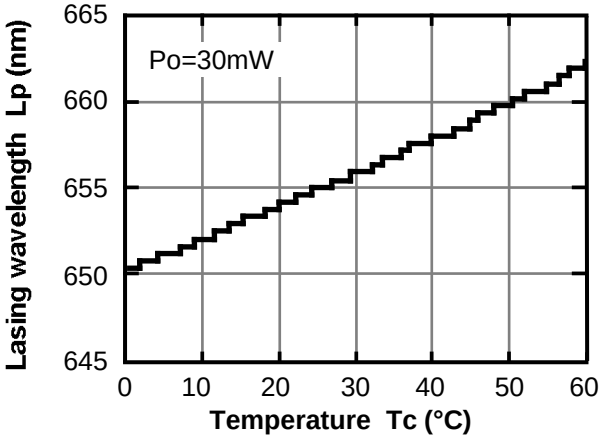
Monitoring current vs. Output power



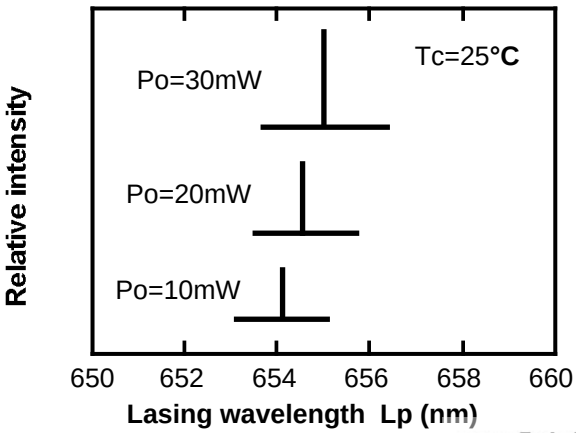
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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