INFRARED LASER DIODE

DL-7140-201S

SANYO

Ver.1 Jun. 2001

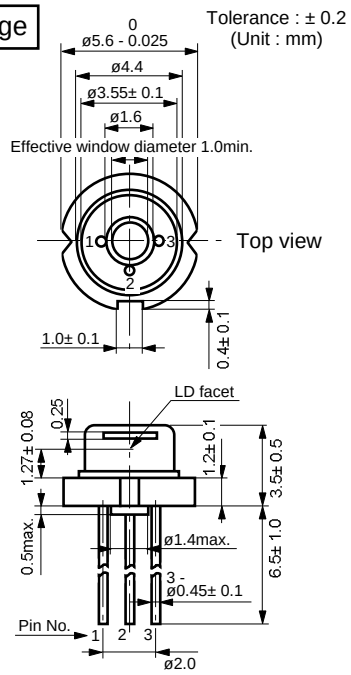
Features

- Wavelength : 785 nm (Typ.)
- Low threshold current : Ith = 30 mA (Typ.)
- High operating temperature : 60°C at 70mW(CW)

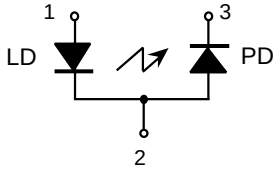
Applications

Optical disc system (CD-R)

Package



Pin Connection



Absolute Maximum Ratings

(Tc=25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po (CW)	80	mW
	Pulse[1)]	Po(pulse)	85	
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 ≤1.0μs, Duty 50%

Electrical and Optical Characteristics

(Tc=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	30	50	mA
Operating Current		Iop	Po=70mW	-	100	140	mA
Operating Voltage		Vop	Po=70mW	-	2.0	2.8	V
Lasing Wavelength		Lp	Po=70mW	775	785	800	nm
Beam Divergence [2)]	Perpendicular	Qv	Po=70mW	15	17	20	°
	Parallel	Qh	Po=70mW	6	8	10	°
Off Axis Angle	Perpendicular	dQv	-	-	-	± 3	°
	Parallel	dQh	-	-	-	± 2	°
Differential Efficiency		dPo/dIop	-	0.6	1.0	1.4	mW/mA
Monitoring Output Current		Im	Po=70mW	0.10	0.25	0.6	mA
Astigmatism		As	Po=70mW	-	-	10	μm

2) Full angle at half maximum

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

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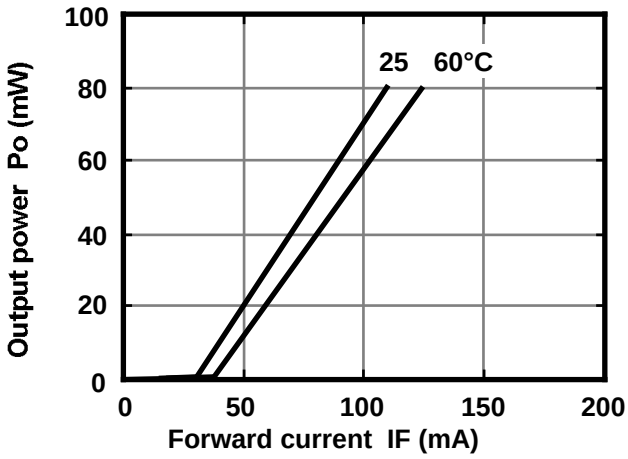
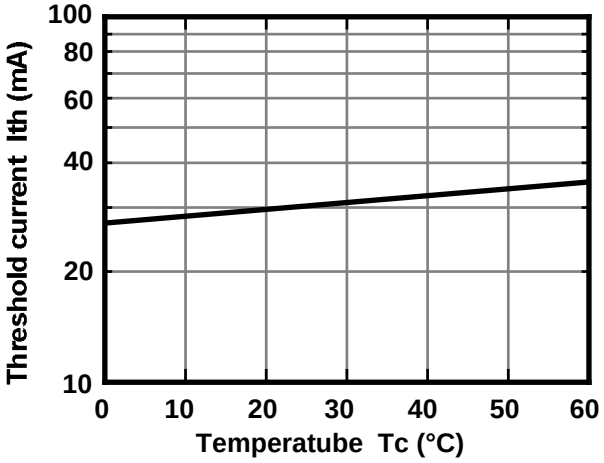
Characteristics

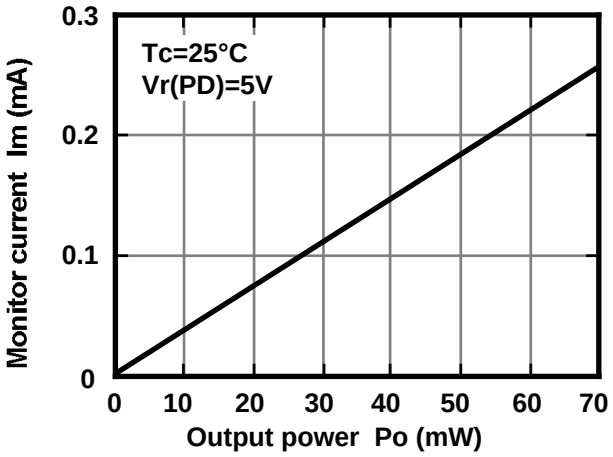
Output power vs. Forward current



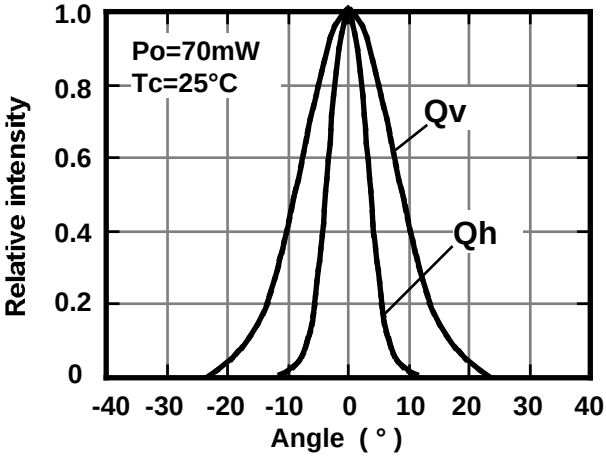
Threshold current vs. Temperature



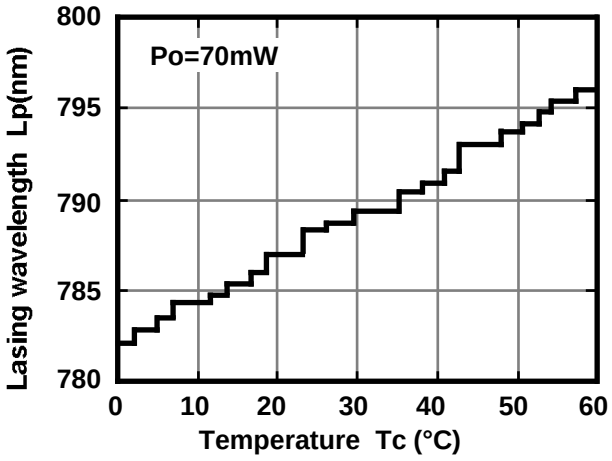
Monitor current vs. Output power



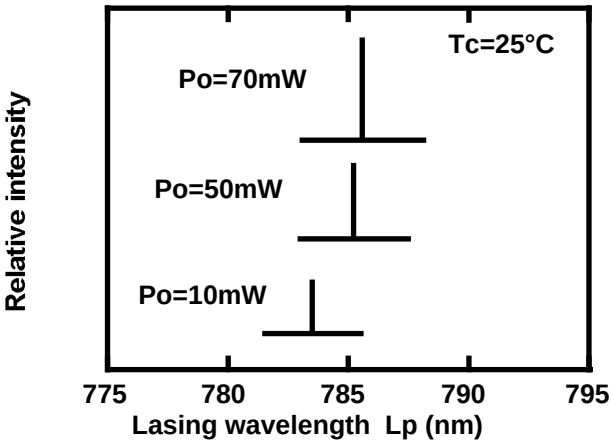
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



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