Red Laser Diode

DL-5147-041

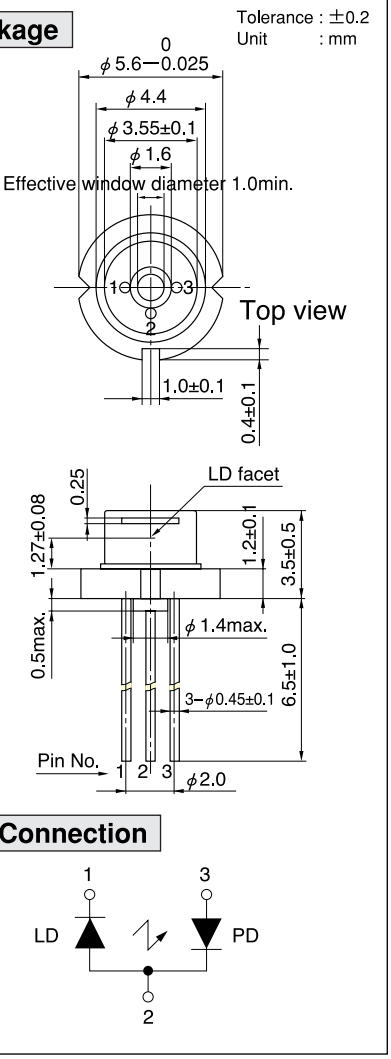
Features

- Short wavelength : 655 nm (Typ.)
- High output power : 30mW at 60˚C
- Low threshold current : Ith = 45 mA (Typ.)
- Small package : ø 5.6mm
- TE mode

Applications

- Bar-code scanner
- Laser printer

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	LD	V_R	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)

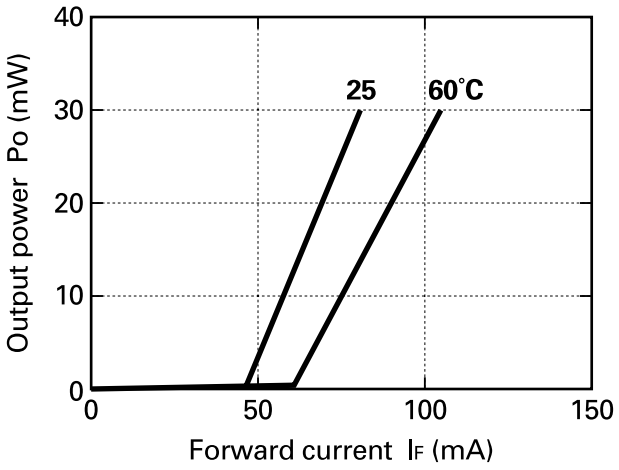
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	—	45	70	mA
Operating Current		Iop	Po=30mW	—	80	110	mA
Operating Voltage		Vop	Po=30mW	—	2.4	2.8	V
Lasing Wavelength		λp	Po=30mW	—	655	665	nm
Beam Divergence 4)	Perpendicular	θ⊥	Po=30mW	15	23	28	°
	Parallel	θ//	Po=30mW	6	7	10	°
Off Axis Angle	Perpendicular	Δθ⊥	—	—	—	±3	°
	Parallel	Δθ//	—	—	—	±3	°
Differential Efficiency		dPo/dIop	—	—	0.8	—	mW/mA
Monitoring Output Current		Im 5)	Po=30mW	0.01	0.03	—	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 5) We recommend Front monitor APC

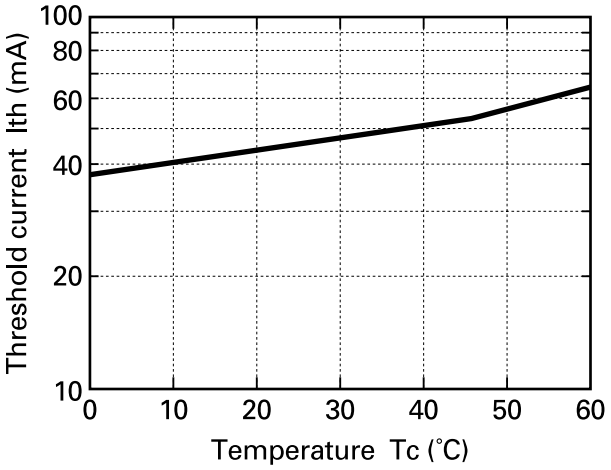
Note : The above product specifications are subject to change without notice.

Characteristics

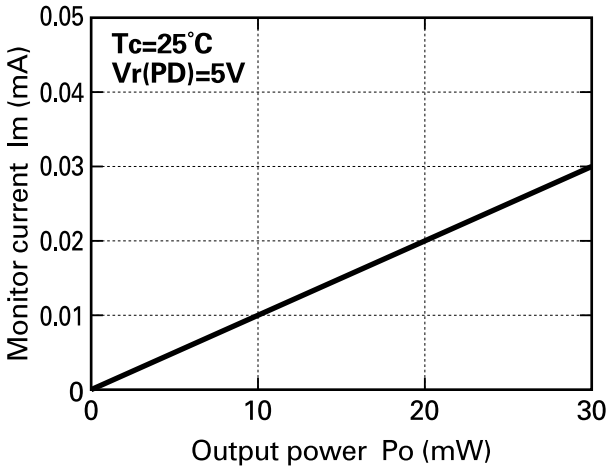
Output power vs. Forward current



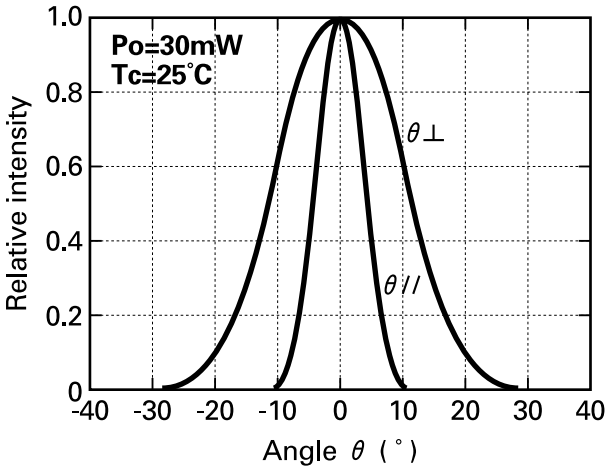
Threshold current vs. Temperature



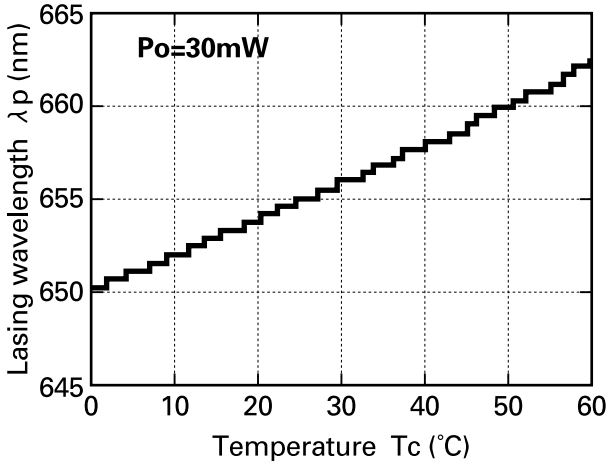
Monitor current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power