

Red Laser Diode

DL-5147-041

Features

- Short wavelength : 655 nm (Typ.)
- High output power : 30mW at 60°C
- Low threshold current : I_{th} = 45 mA (Typ.)
- Small package : ϕ 5.6mm
- TE mode

Applications

- Bar-code scanner
- Laser printer

Absolute Maximum Ratings

(T_c = 25°C)

Parameter		Symbol	Ratings	Unit
Light Output	CW	P _o (CW)	30	mW
	Pulse ¹⁾	P _o (pulse)	50	
Reverse Voltage	LD	V _R	2	V
	PD		30	
Operating Temperature		T _{opr}	-10 to +60	°C
Storage Temperature		T _{stg}	-40 to +85	°C

1) Pulse Width 0.5 μ s, Duty 50%

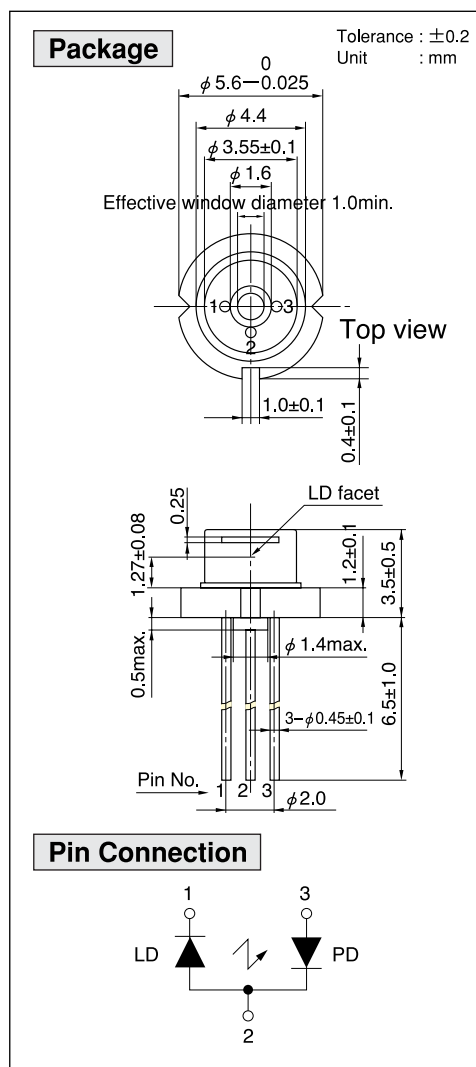
Electrical and Optical Characteristics

(T_c = 25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		I _{th}	CW	—	45	70	mA
Operating Current		I _{op}	P _o =30mW	—	80	110	mA
Operating Voltage		V _{op}	P _o =30mW	—	2.4	2.8	V
Lasing Wavelength		λ p	P _o =30mW	—	655	665	nm
Beam Divergence ⁴⁾	Perpendicular	θ_{\perp}	P _o =30mW	15	23	28	°
	Parallel	θ_{\parallel}	P _o =30mW	6	7	10	°
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	—	± 3	°
	Parallel	$\Delta\theta_{\parallel}$	—	—	—	± 3	°
Differential Efficiency		dP _o /dI _{op}	—	—	0.8	—	mW/mA
Monitoring Output Current		I _m ⁵⁾	P _o =30mW	0.01	0.03	—	mA
Astigmatism		A _s	P _o =30mW	—	10	—	mm

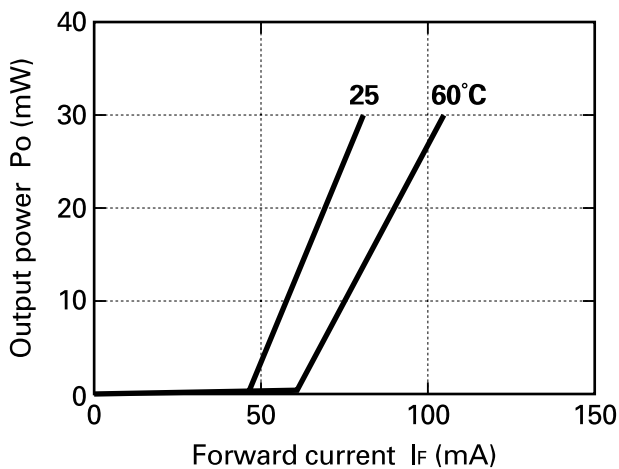
2) Initial values 3) All the above values are evaluated with Tottori Sanyo's measuring apparatus 4) Full angle at half maximum 5) We recommend Front monitor APC

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

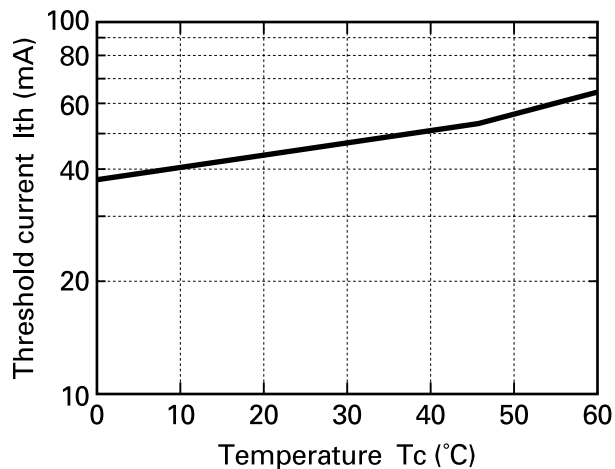


Characteristics

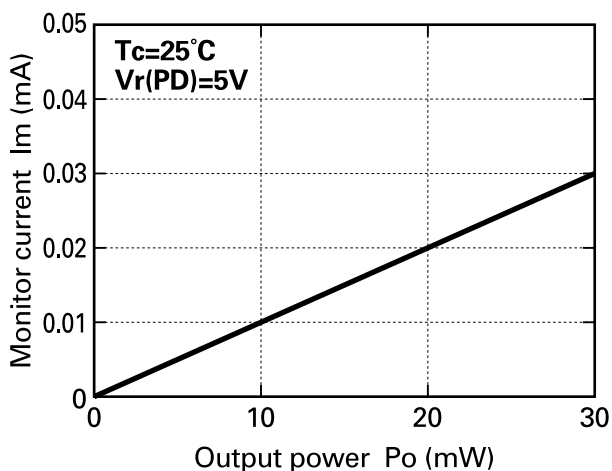
Output power vs. Forward current



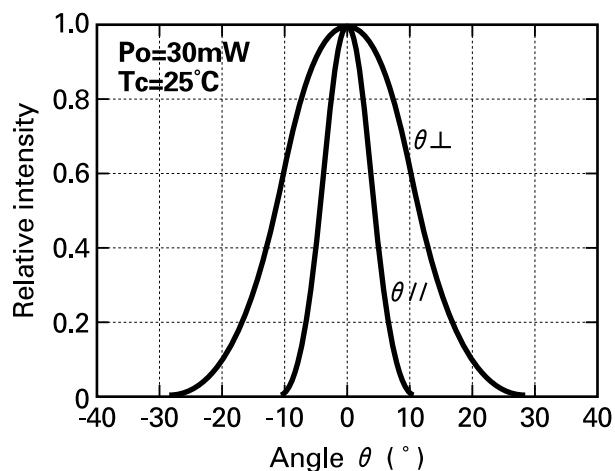
Threshold current vs. Temperature



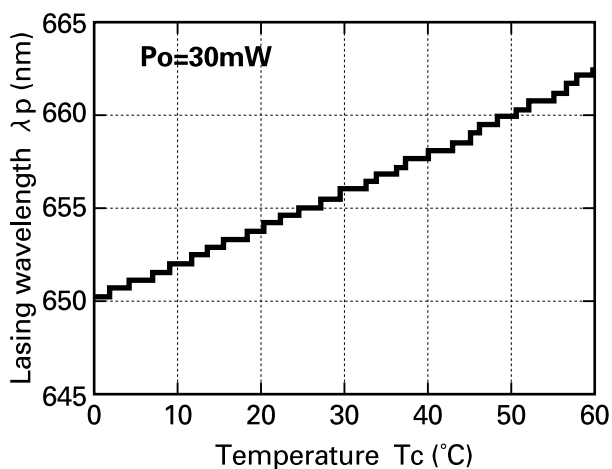
Monitor current vs. Output power



Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power

