

DL3148-025 Red Laser Diode

Features

- Short wavelength : 635 nm (Typ.)
- Output power : 5 mW CW
- Low threshold current : I_{th} = 20 mA (Typ.)
- Low operating voltage : V_{op} = 2.2 V (Typ.)
- Small package : ø 5.6 mm

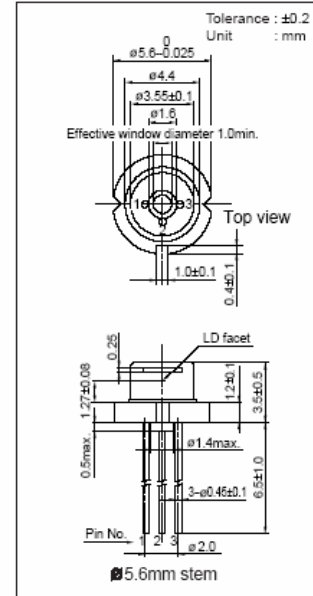
Applications

- Laser pointer

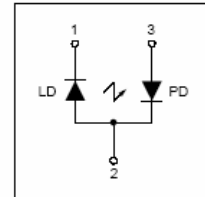
Absolute Maximum Ratings at T_c=25°C

Parameter	Symbol	Unit	Ratings
Light Output	CW Po	mW	6
Reverse Voltage	Laser V _R	V	2
	PD		30
Operating Temperature	T _{opr}	°C	-10 to +40
Storage Temperature	T _{stg}	°C	-40 to +85

Package Dimensions



Pin Connection



Electrical and Optical Characteristics 1) 2) at T_c=25°C

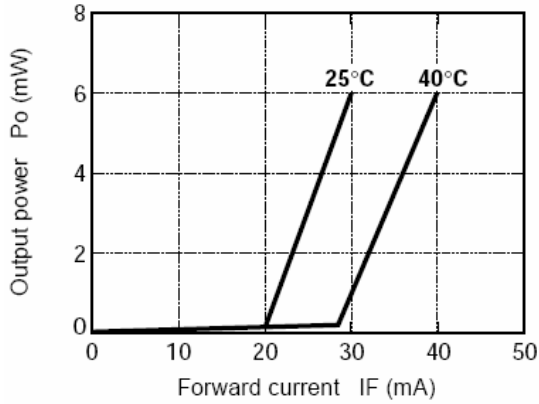
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	I _{th}	CW	-	20	35	mA
Operating Current	I _{op}	P _o =5mW	-	30	45	mA
Operating Voltage	V _{op}	P _o =5mW	-	2.2	2.4	V
Lasing Wavelength	λ _p	P _o =5mW	630	635	640	nm
Beam Divergence 3)	Perpendicular	θ _⊥	25	30	35	°
	Parallel	θ _{//}	6	8	10	°
Off Axis Angle	Perpendicular	Δθ _⊥	-	-	±3	°
	Parallel	Δθ _{//}	-	-	±3	°
Differential Efficiency	dP _o /dI _{op}	-	-	0.5	-	mW/mA
Monitoring Output Current	I _m	P _o =5mW	0.08	0.2	0.5	mA
Astigmatism	A _s	P _o =5mW	-	8	-	μm

1) Initial values 2) All the above values are evaluated with Tottori Sanyo's measuring apparatus

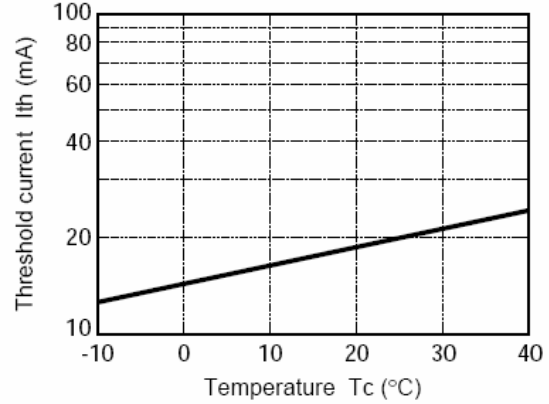
3) Full angle at half maximum Note : The above product specification are subject to change without notice.

Characteristics

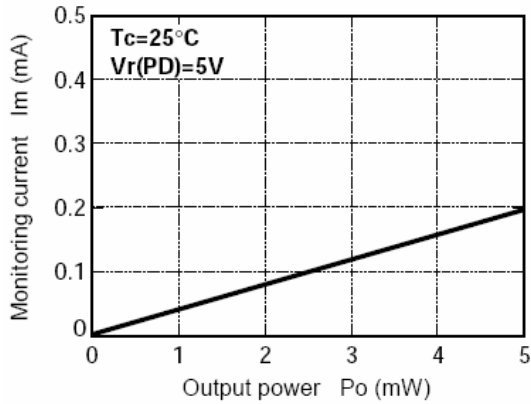
Output power vs. Forward current



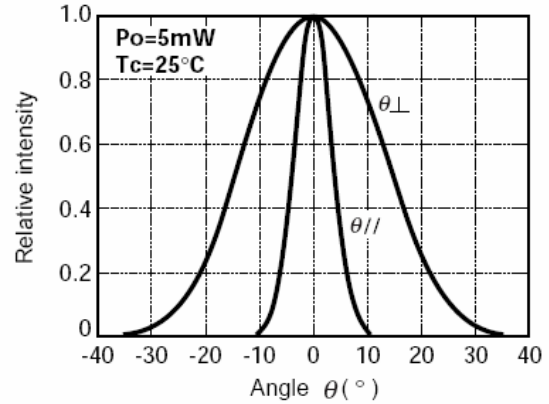
Threshold current vs. Temperature



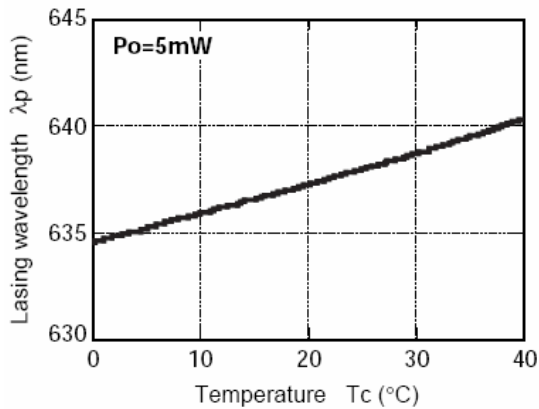
Monitoring current vs. Output power



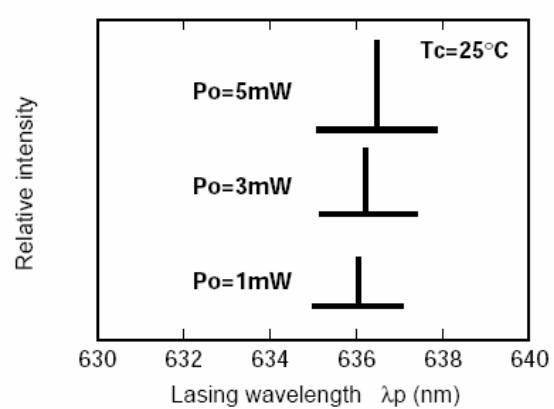
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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