Ordering number : ENN6878A

Red Laser Diode

DL-3147-285

Red Laser Diode

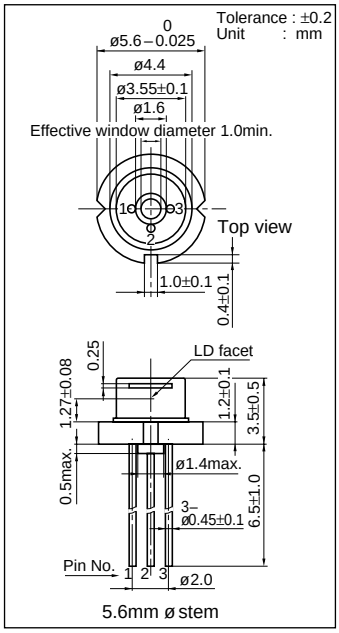
Features

- Short wavelength : 650 nm (Typ.)
- Low threshold current : Ith = 25 mA (Typ.)
- High operating temperature : 5 mW at 80°C
- TE mode

Applications

- DVD-ROM/PLAYER

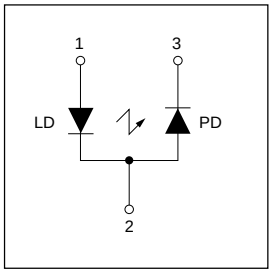
Package Dimensions



Absolute Maximum Ratings at Tc=25°C

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	7	mW
Reverse Voltage	Laser	V_R	2	V
	PD		30	
Operating Temperature		Topr	−10 to +80	°C
Storage Temperature		Tstg	−40 to +85	°C

Pin Connection



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

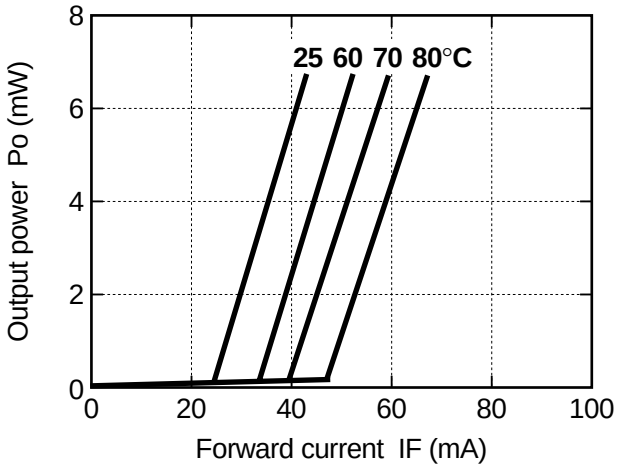
Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	–	25	40	mA
Operating Current		Iop	Po=5mW	–	35	50	mA
Operating Voltage		Vop	Po=5mW	–	2.3	2.6	V
Lasing Wavelength		λ p	Po=5mW	645	650	660	nm
Beam 3) Divergence	Perpendicular	θ ⊥	Po=5mW	25	30	35	°
	Parallel	θ //	Po=5mW	7.0	8.0	10	°
Off Axis Angle	Perpendicular	Δ θ ⊥	–	–	–	±3	°
	Parallel	Δ θ //	–	–	–	±2	°
Differential Efficiency		dPo/dIop	–	0.3	0.5	0.8	mW/mA
Monitoring Output Current		Im	Po=5mW	0.08	0.15	0.4	mA
Astigmatism		As	Po=5mW	–	8	–	μm

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

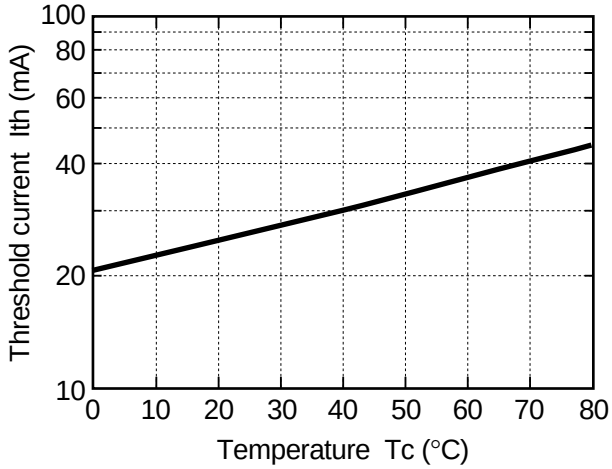
3) Full angle at half maximum Note : The above product specification are subject to change without notice.

Characteristics

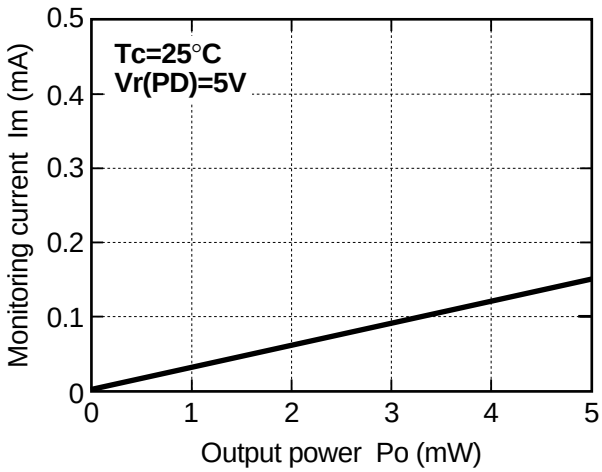
Output power vs. Forward current



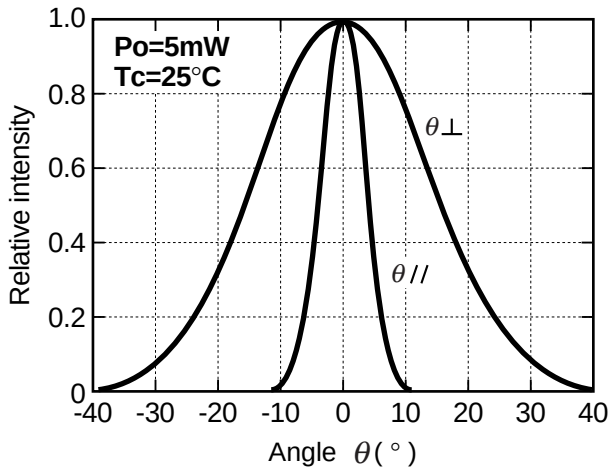
Threshold current vs. Temperature



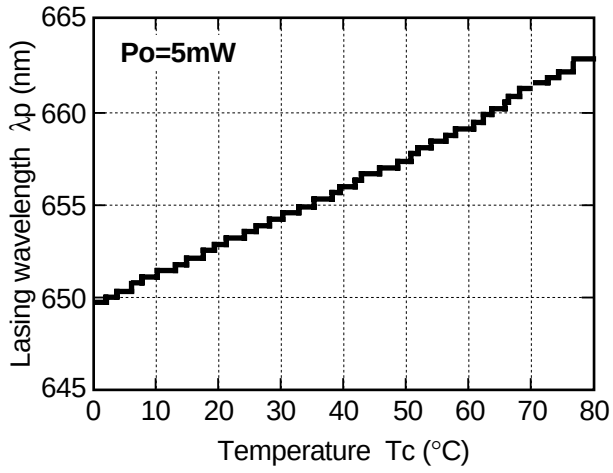
Monitoring current vs. Output power



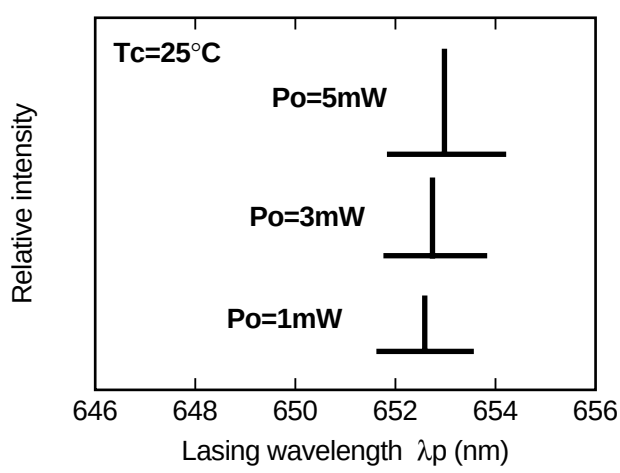
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



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Precautionary instructions in handling gallium arsenic products

Special precautions must be taken in handling this product because it contains, gallium arsenic, which is designated as a toxic substance by law. Be sure to adhere strictly to all applicable laws and regulations enacted for this substance, particularly when it comes to disposal.

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