Ordering number : ENN5861C

Red Laser Diode

DL-3147-021

Red Laser Diode

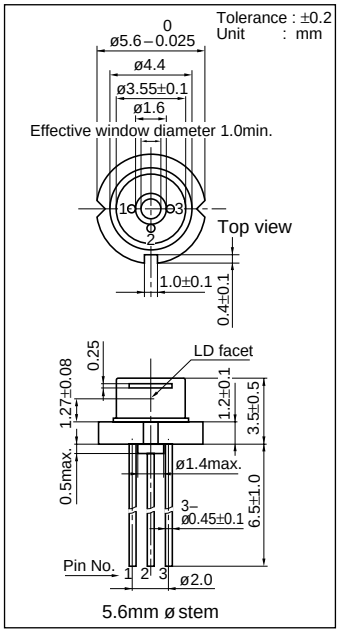
Features

- Short wavelength : 645 nm (Typ.)
- Low threshold current : Ith = 30 mA (Typ.)
- Low operating voltage : Vop = 2.3 V (Typ.)
- Small package : ø 5.6 mm

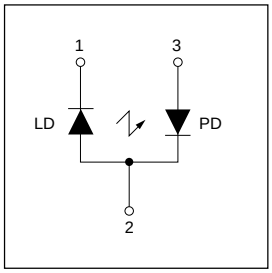
Applications

- Laser pointer

Package Dimensions



Pin Connection



Absolute Maximum Ratings at Tc=25°C

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	5	mW
Reverse Voltage	Laser	V_R	2	V
	PD		30	
Operating Temperature		Topr	−10 to +40	°C
Storage Temperature		Tstg	−40 to +85	°C

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

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	–	30	50	mA
Operating Current		Iop	Po=5mW	–	45	60	mA
Operating Voltage		Vop	Po=5mW	–	2.3	2.6	V
Lasing Wavelength		λ p	Po=5mW	–	645	660	nm
Beam 3) Divergence	Perpendicular	θ ⊥	Po=5mW	25	30	40	°
	Parallel	θ //	Po=5mW	6	7.5	10	°
Off Axis Angle	Perpendicular	Δ θ ⊥	–	–	–	±3	°
	Parallel	Δ θ //	–	–	–	±3	°
Differential Efficiency		dPo/dIop	–	0.2	0.4	0.8	mW/mA
Monitoring Output Current		Im	Po=5mW	0.15	0.4	0.75	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.

SANYO Electric Co.,Ltd. Semiconductor Company

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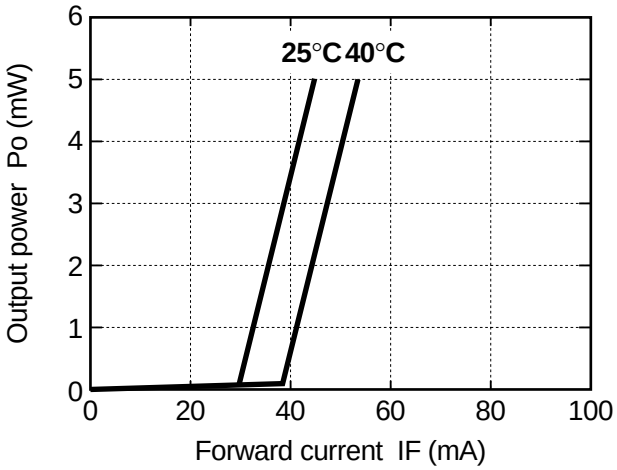
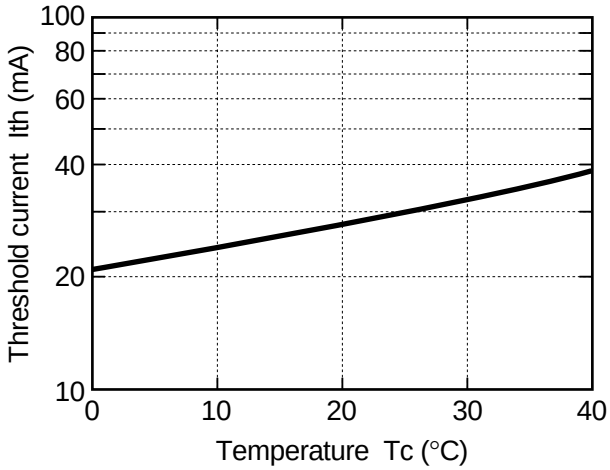
Characteristics

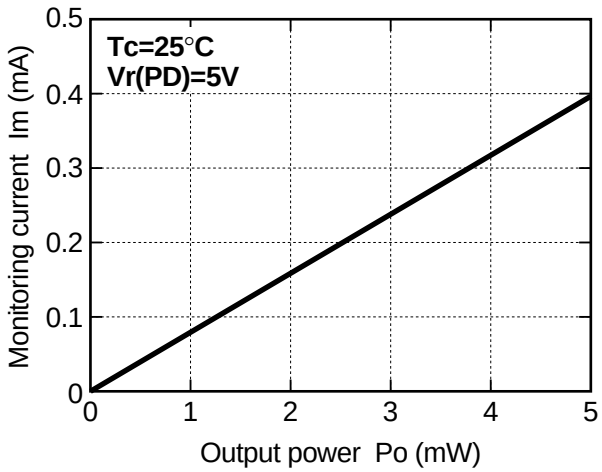
Output power vs. Forward current



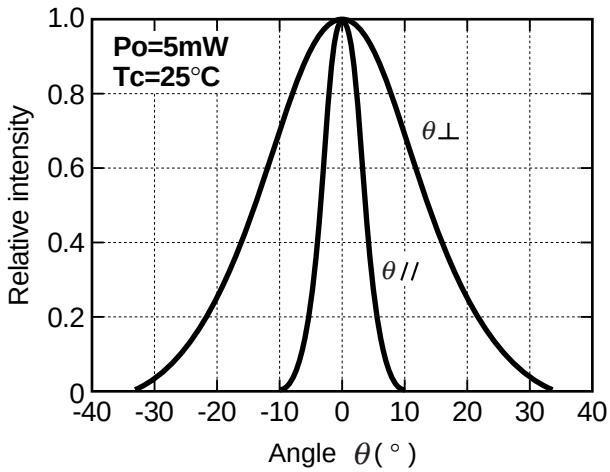
Threshold current vs. Temperature



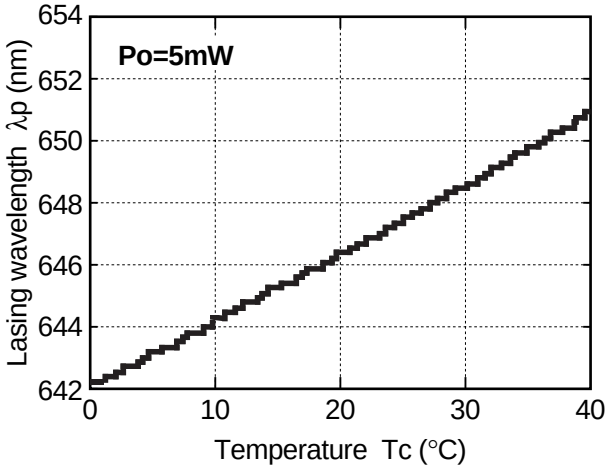
Monitoring current vs. Output power



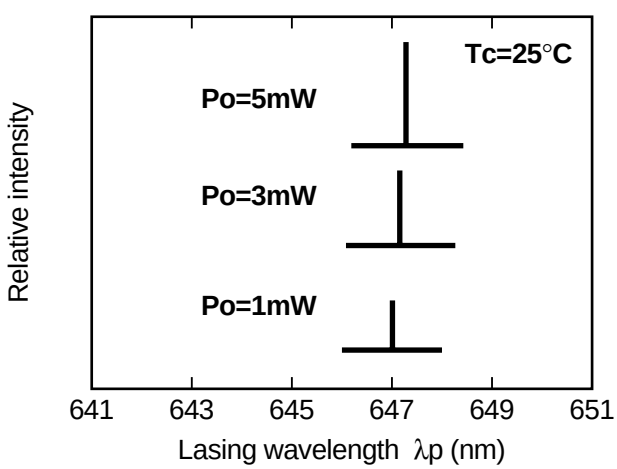
Beam divergence



Lasing wavelength vs. Temperature



Lasing wavelength vs. Output power



⚠ CAUTION

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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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