Ordering number : ENN7589

Infrared Laser Diode

DL-8032-001

Infrared Laser Diode

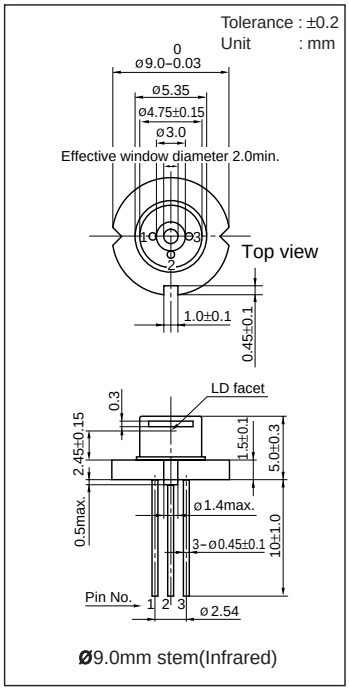
Features

- Lasing wavelength : 830 nm (Typ.)
- High output power : 150 mW at 50°C
- Low threshold current : Ith = 50 mA (Typ.)

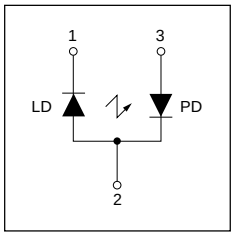
Applications

- Laser beam printer

Package Dimensions



Pin Connection



Absolute Maximum Ratings at Tc=25°C

Parameter		Symbol	Ratings	Unit
Light Output	CW	Po	150	mW
Reverse Voltage	Laser	V_R	2	V
	PD		30	
Operating Temperature		Topr	−10 to +50	°C
Storage Temperature		Tstg	−40 to +85	°C

Electrical and Optical Characteristics at Tc=25°C

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	-	50	70	mA
Operating Current		Iop	Po=150mW	-	185	220	mA
Operating Voltage		Vop	Po=150mW	-	1.8	2.2	V
Lasing Wavelength		λ p	Po=150mW	815	830	840	nm
Beam Divergence 1)	Perpendicular	θ ⊥	Po=150mW	12	18	25	°
	Parallel	θ //	Po=150mW	5	7	11	°
Off Axis Angle	Perpendicular	Δ θ ⊥	-	-	-	±3	°
	Parallel	Δ θ //	-	-	-	±3	°
Differential Efficiency		dPo/dIop	-	0.7	1.0	-	mW/mA
Monitoring Output Current		Im	Po=150mW	0.15	0.5	2.0	mA
Astigmatism		As	Po=150mW	-	-	10	μm

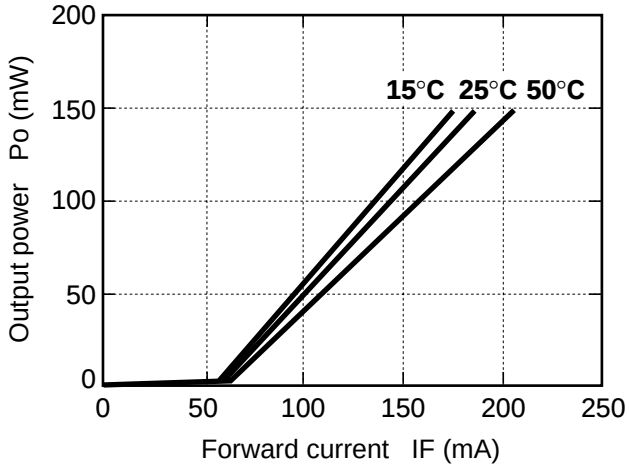
1) Full angle at half maximum

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

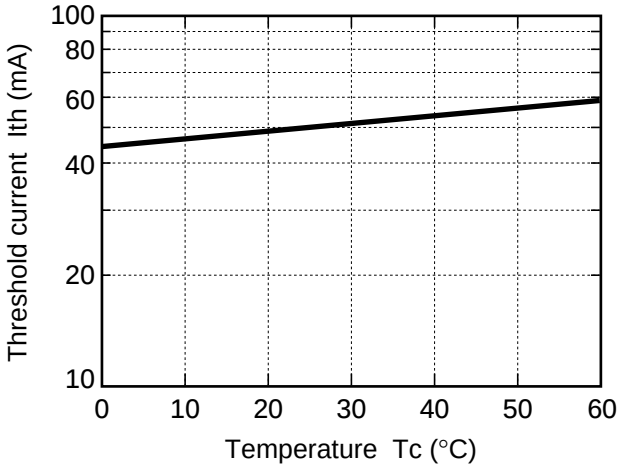
SANYO Electric Co.,Ltd. Semiconductor Company
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Characteristics

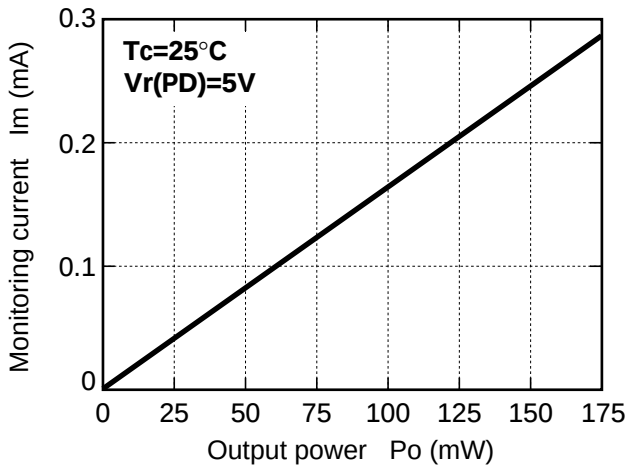
Output power vs. Forward current



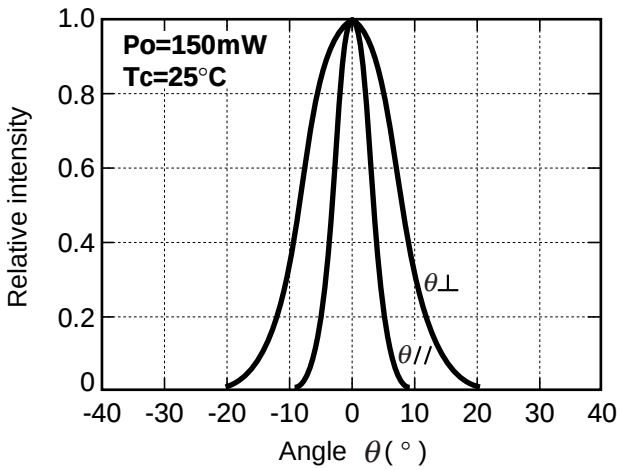
Threshold current vs. Temperature



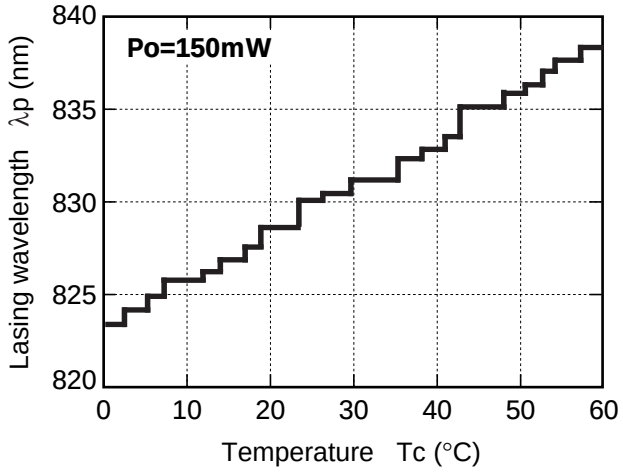
Monitoring current vs. Output power



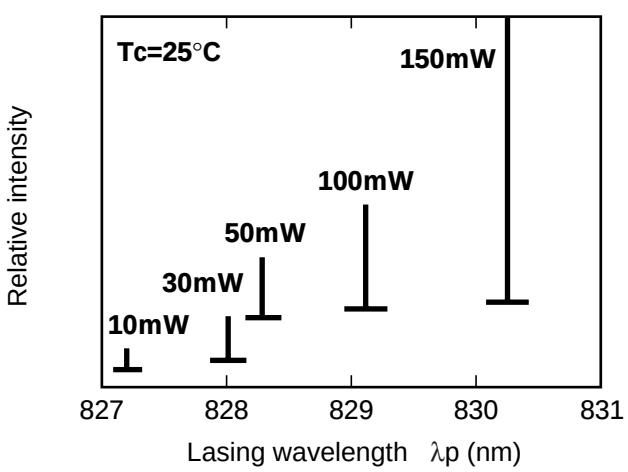
Beam divergence



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.

Manufactured by ; **Tottori SANYO Electric Co., Ltd.**
LED Business Unit
5-318, Tachikawa-cho, Tottori City, 680-8634 Japan
TEL: +81-857-21-2137 FAX: +81-857-21-2161