

**DL-3149-070****Index Guided AlGaInP Laser Diode****Overview**

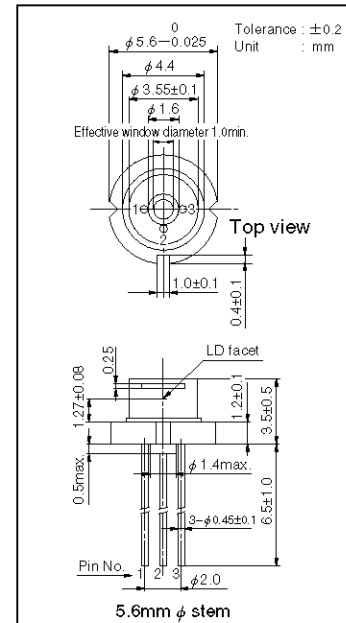
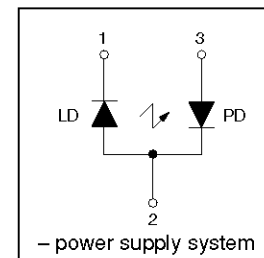
DL-3149-070 is self-pulsation type index guided AlGaInP laser diode. The low threshold current is achieved by use of a strained multiple quantum well active layer. DL-3149-070 is suitable for applications such as optical disc systems and measurement equipments.

Features

- Wavelength : 685 nm (Typ.)
- Low noise : self-pulsation
- High operating temperature : 60°C at 3 mW
- Small package : 5.6mm ϕ

Absolute Maximum Ratings at Tc=25°C

Parameter	Symbol	Ratings	Unit
Light Output	Po	5	mW
Reverse Voltage	Laser PIN	VR	2
			30
Operating Temperature	Topr	-10 to +60	°C
Storage Temperature	Tstg	-40 to +85	°C

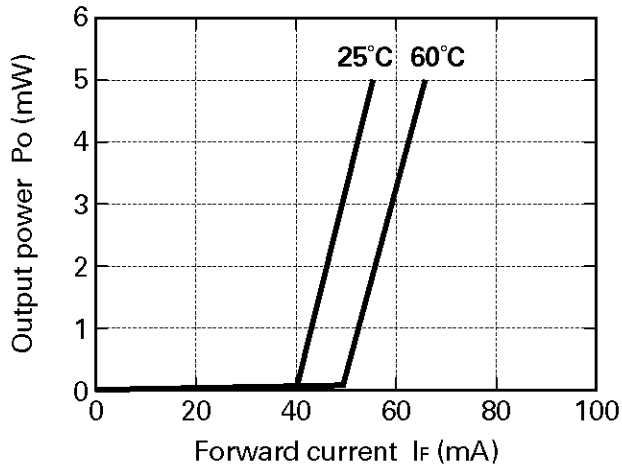
Package Dimensions**Electrical Connection****Electrical and Optical Characteristics at Tc=25°C**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current	Ith	CW	—	40	70	mA
Operating Current	Iop	Po=3mW	—	50	80	mA
Operating Voltage	Vop	Po=3mW	—	2.5	2.8	V
Lasing Wavelength	λ_p	Po=3mW	—	685	695	nm
Beam Divergence ※)	Perpendicular	θ_{\perp}	25	37	45	deg.
	Parallel	θ_{\parallel}	6	8.5	11	deg.
Off Axis Angle	Perpendicular	$\Delta\theta_{\perp}$	—	—	±3	deg.
	Parallel	$\Delta\theta_{\parallel}$	—	—	±3	deg.
Differential Efficiency	dPo/dIop	—	—	0.3	—	mW/mA
Monitoring Output Current	Im	Po=3mW	—	0.15	—	mA
Astigmatism	As	Po=3mW	—	12	—	μm

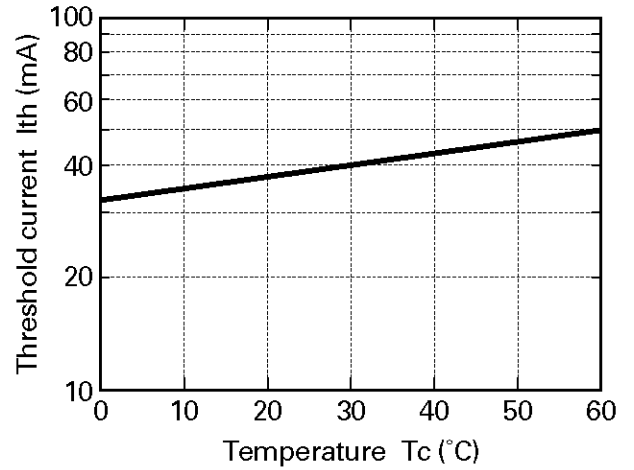
※) Full angle at half maximum note : The above product specifications are subject to change without notice.

Characteristics

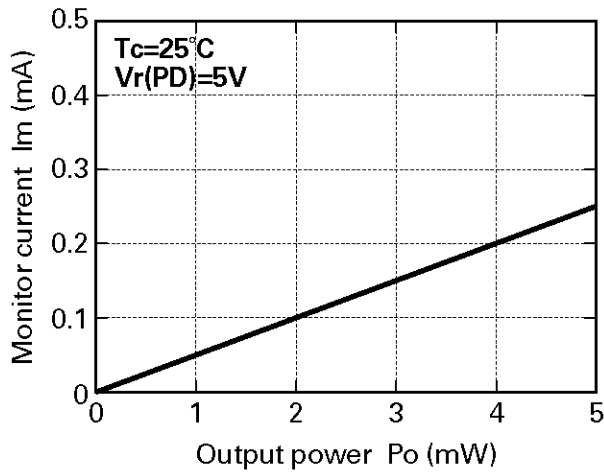
Output power vs. Forward current



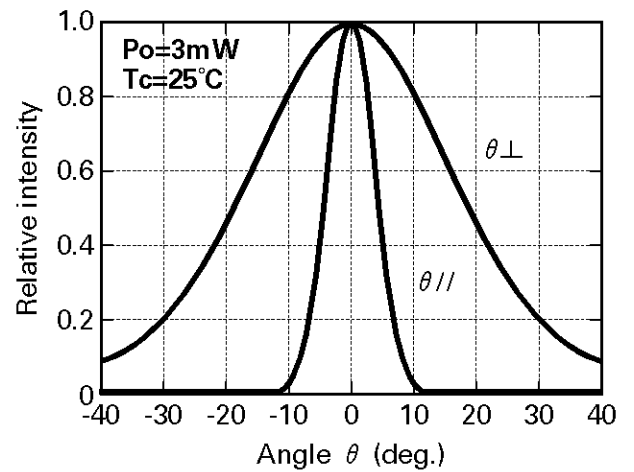
Threshold current vs. Temperature



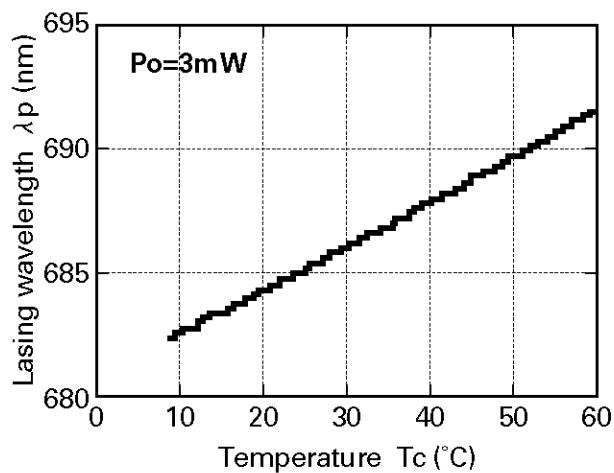
Monitor current vs. Output power



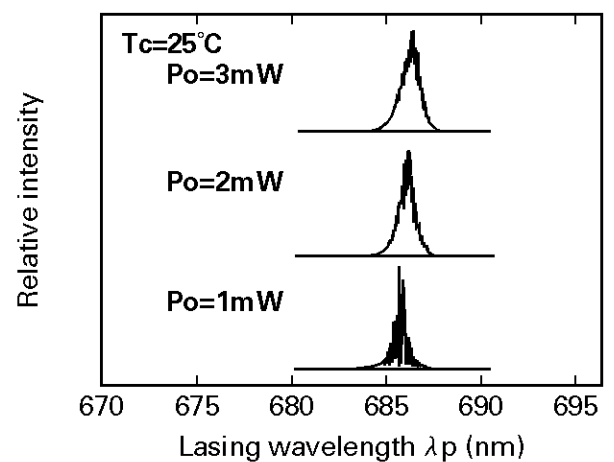
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength





CAUTION

1. No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster / crime-prevention equipment or the like, and the failure of which may directly or indirectly cause injury, death or property loss.
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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.**
Electronics Device Bussiness Headquarters LED Division
5-318, Tachikawa-cho, Tottori City, 680 Japan
TEL: +81-857-21-2137 FAX: +81-857-21-2161