

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

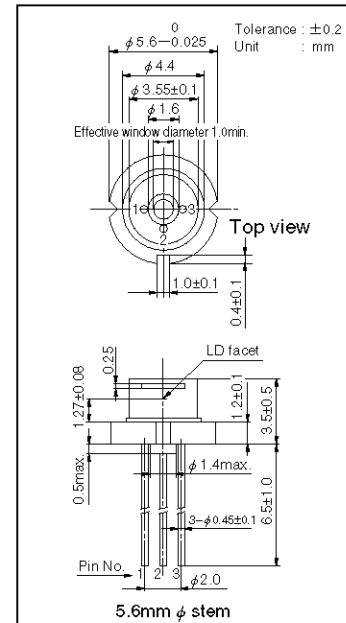
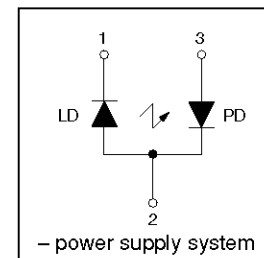
DL-3149-070 is self-pulsation type index guided AlGaInP laser diode. The low threshold current is achieved by use of a strained multiple quantum well active layer. DL-3149-070 is suitable for applications such as optical disc systems and measurement equipments.

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.

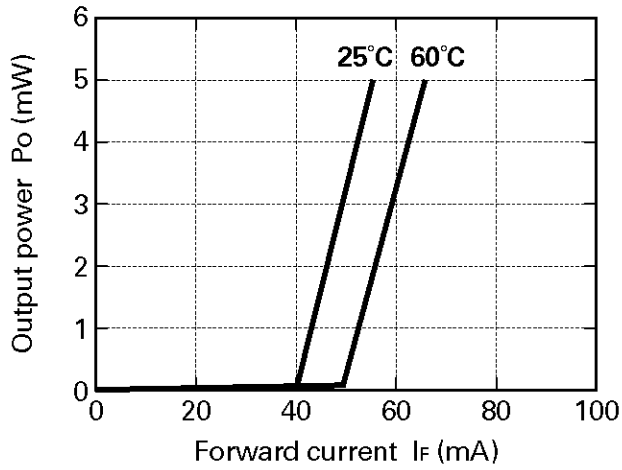
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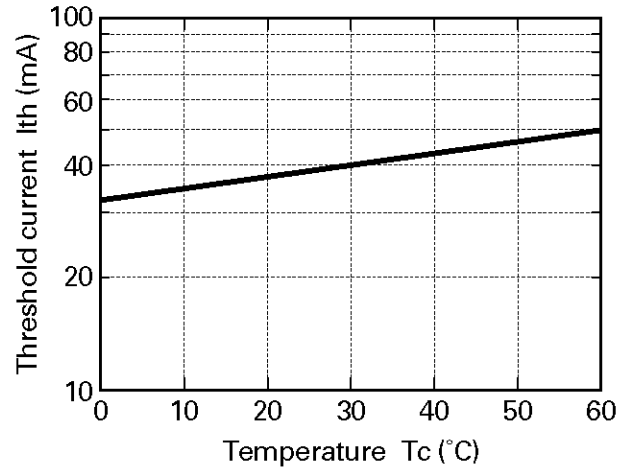
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Characteristics

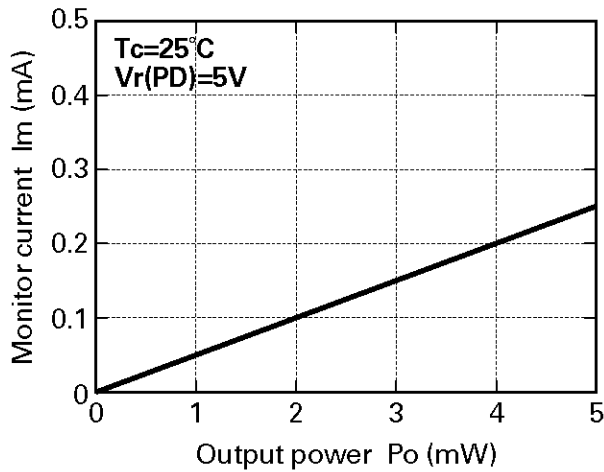
Output power vs. Forward current



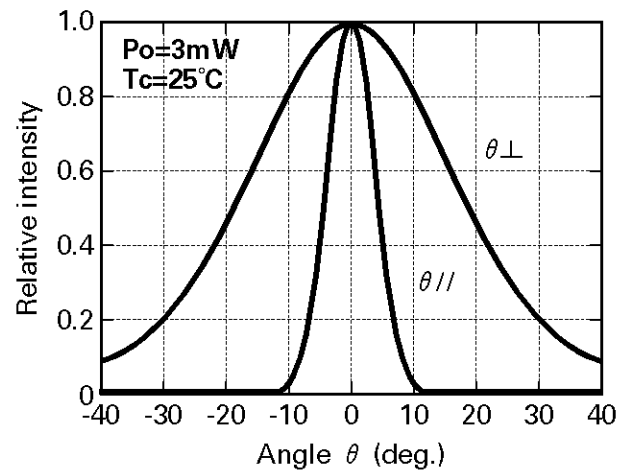
Threshold current vs. Temperature



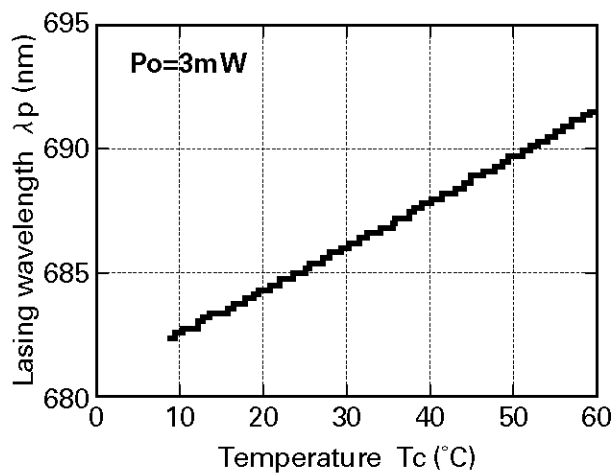
Monitor current vs. Output power



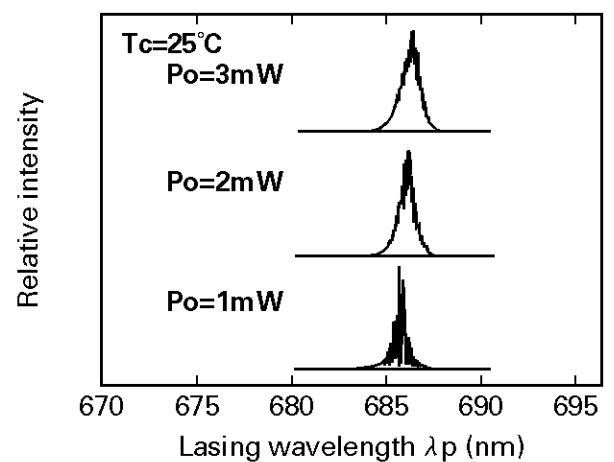
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



 **CAUTION**

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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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