Ordering number : EN5873

Infrared Laser Diode

DL-7140-201

High Power Laser Diode

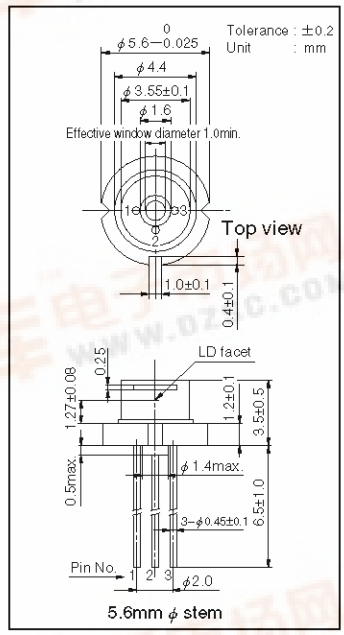
Overview

DL-7140-201 is high power (70mW) 785nm laser diode.
DL-7140-201 is suitable for CD-R.

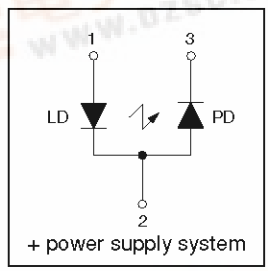
Features

- High power : 70 mW at 60℃
- Index guided type
- Small package : 5.6 mm ϕ
- PIN connection : Cathode common type

Package Dimensions



Electrical Connection



Absolute Maximum Ratings at Tc=25℃

Parameter		Symbol	Ratings	Unit
Light Output		Po	80	mW
Reverse Voltage	Laser	VR	2	V
	PIN		30	
Operating Temperature		Topr	−10 to +60	℃
Storage Temperature		Tstg	−40 to +85	℃

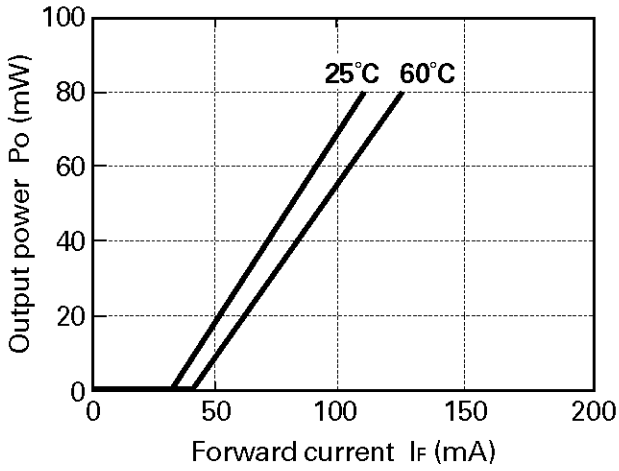
Electrical and Optical Characteristics at Tc=25℃

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Threshold Current		Ith	CW	–	30	50	mA
Operating Current		Iop	Po=70mW	–	100	140	mA
Operating Voltage		Vop	Po=70mW	–	2.0	2.5	V
Lasing Wavelength		λp	Po=70mW	780	785	800	nm
Beam Divergence ※)	Perpendicular	θ⊥	Po=70mW	15	17	20	deg.
	Parallel	θ//	Po=70mW	5.5	7.0	8.0	deg.
Off Axis Angle	Perpendicular	Δθ⊥	–	–	–	±3	deg.
	Parallel	Δθ//	–	–	–	±3	deg.
Differential Efficiency		dPo/dIop	–	0.6	1.0	1.4	mW/mA
Monitoring Output Current		Im	Po=70mW	0.10	0.25	0.60	mA
Astigmatism		As	Po=70mW	–	10	–	μm

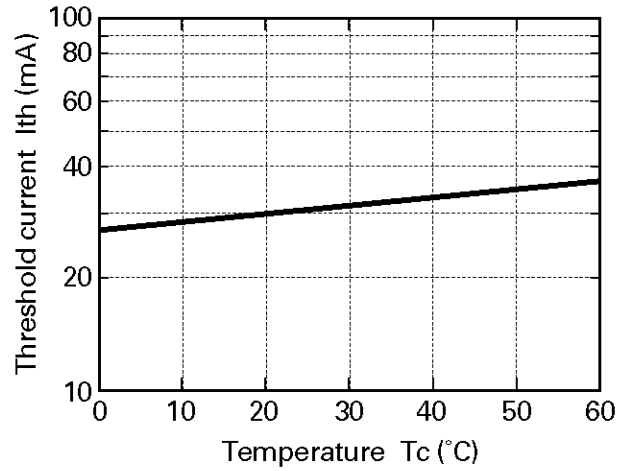
※) Full angle at half maximum note : The above product specifications are subject to change without notice.

Characteristics

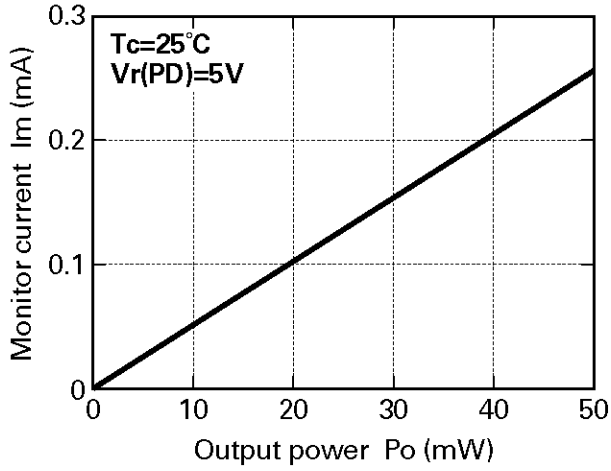
Output power vs. Forward current



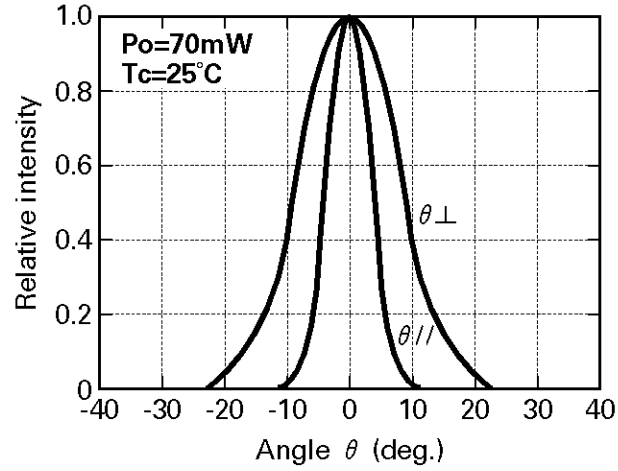
Threshold current vs. Temperature



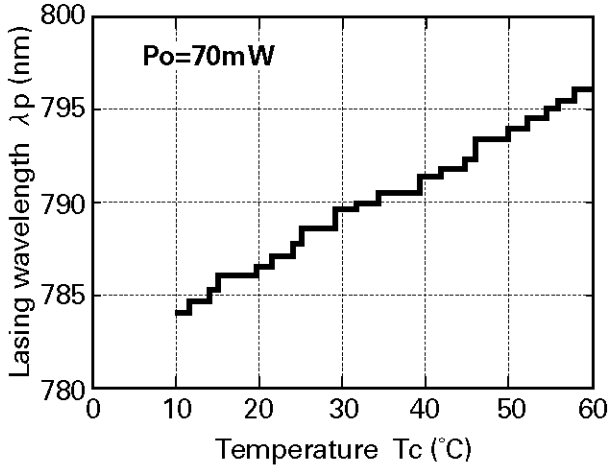
Monitor current vs. Output power



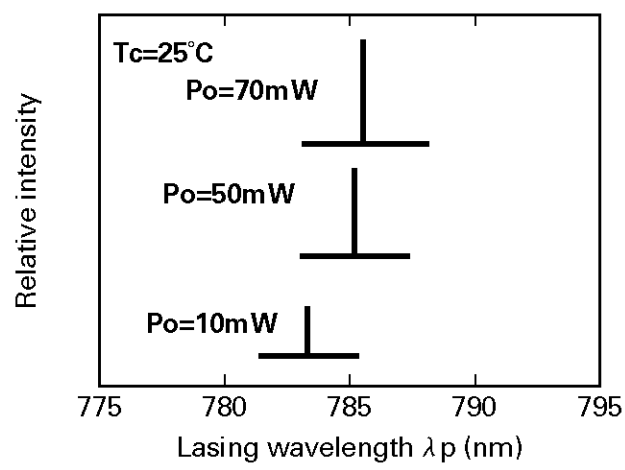
Beam divergence



Lasing wavelength vs. Temperature



Output power vs. Lasing wavelength



⚠ CAUTION

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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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