Ordering number : EN5873A

Infrared Laser Diode

DL-7140-201

High Power Laser Diode

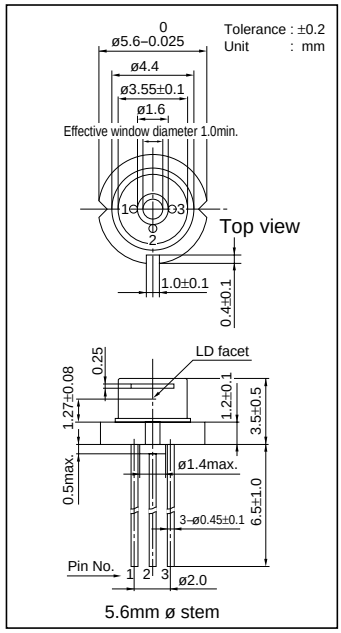
Overview

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

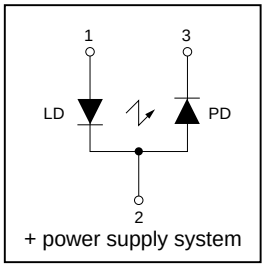
Features

- •High power : 70 mW at 60°C
- •Index guided type
- •Small package : 5.6 mmØ
- •PIN connection : Cathode common type

Package Dimensions



Electrical Connection



Absolute Maximum Ratings at Tc=25°C

Parameter		Symbol	Ratings	Unit
Light Output		Po	80	mW
Reverse Voltage	Laser	VR	2	V
	PIN		30	
Operating Temperature		Topr	–10 to +60	°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	–	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.

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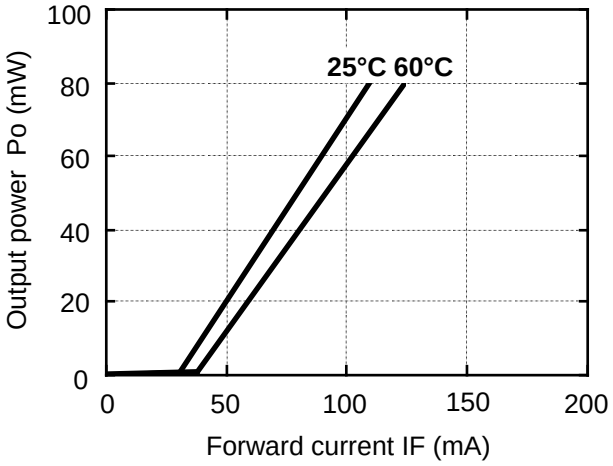
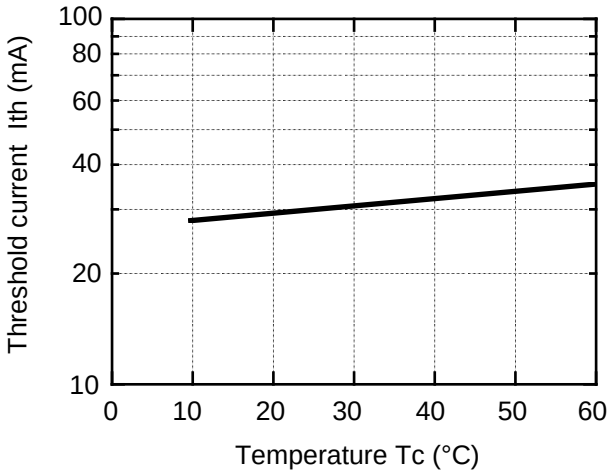
Characteristics

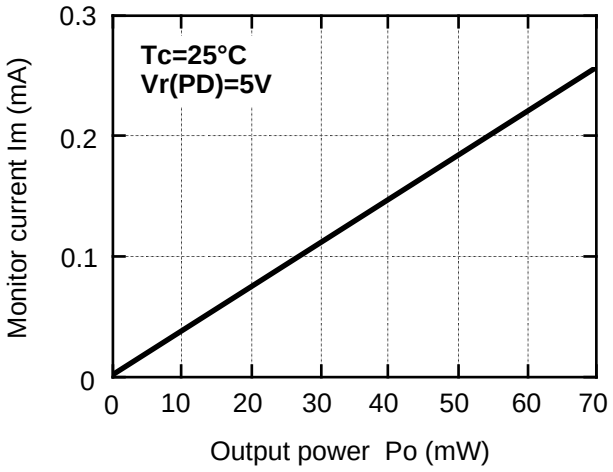
Output power vs. Forward current



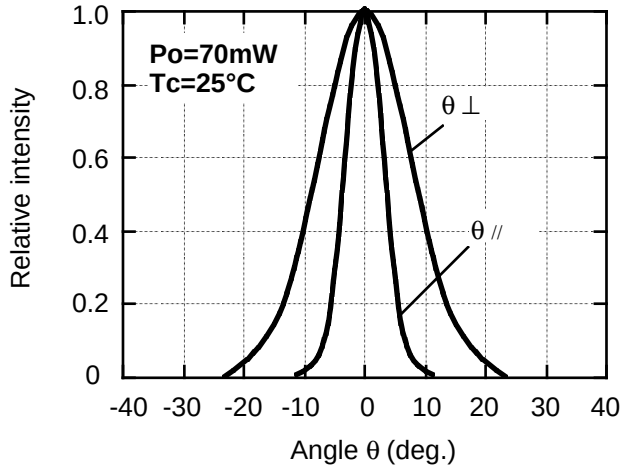
Threshold current vs. Temperature



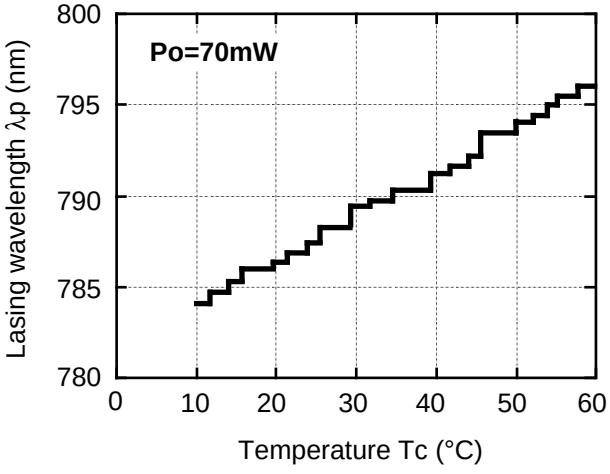
Monitor current vs. Output power



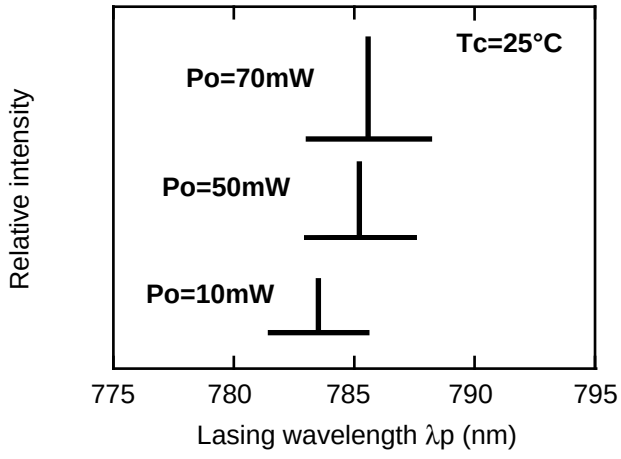
Beam divergence



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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