

**DL-7140-201****High Power Laser Diode****Overview**

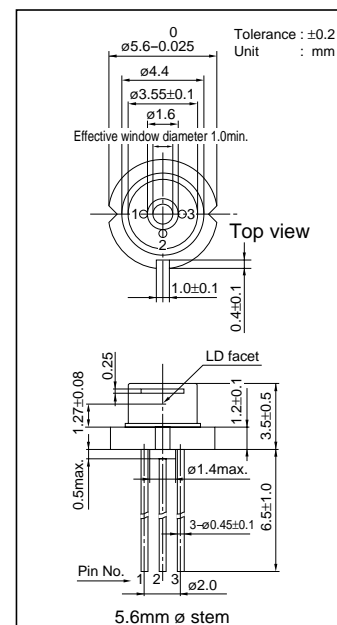
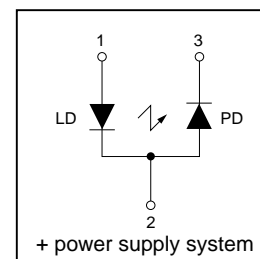
DL-7140-201 is high power (70mW) 785nm laser diode.  
DL-7140-201 is suitable for CD-R.

**Features**

- High power : 70 mW at 60°C
- Index guided type
- Small package : 5.6 mm $\varnothing$
- PIN connection : Cathode common type

**Absolute Maximum Ratings at Tc=25°C**

Parameter	Symbol	Ratings	Unit
Light Output	Po	80	mW
Reverse Voltage	Laser PIN VR	2	V
		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	–	30	50	mA
Operating Current		Iop	Po=70mW	–	100	140	mA
Operating Voltage		Vop	Po=70mW	–	2.0	2.5	V
Lasing Wavelength		$\lambda$ p	Po=70mW	780	785	800	nm
Beam Divergence	⊗) Perpendicular	$\theta \perp$	Po=70mW	15	17	20	deg.
	Parallel	$\theta //$	Po=70mW	5.5	7.0	8.0	deg.
Off Axis Angle	Perpendicular	$\Delta \theta \perp$	–	–	–	±3	deg.
	Parallel	$\Delta \theta //$	–	–	–	±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.

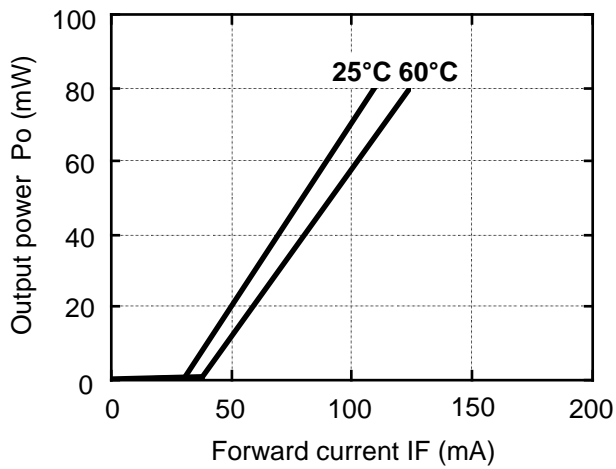
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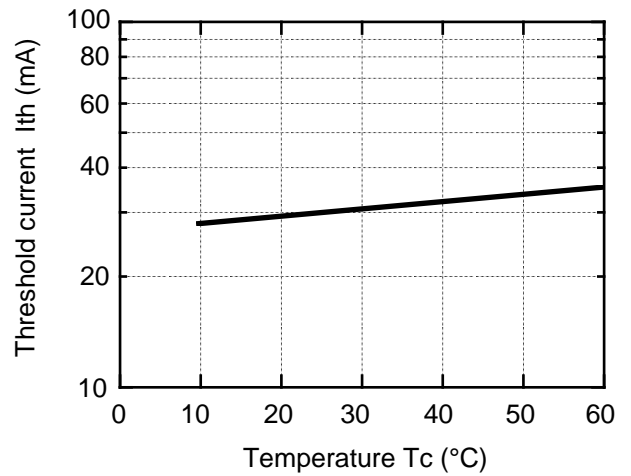
N2798 GI / N2897 GI, (IM) No.5873 1/3

## Characteristics

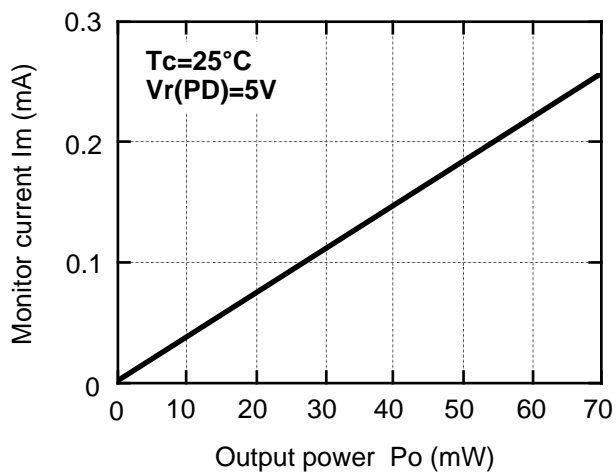
### Output power vs. Forward current



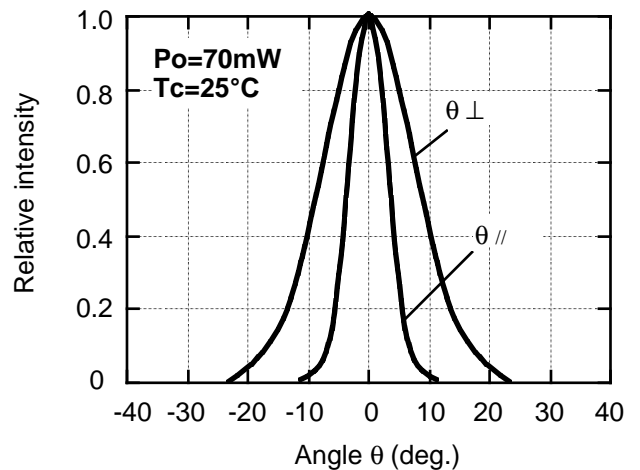
### Threshold current vs. Temperature



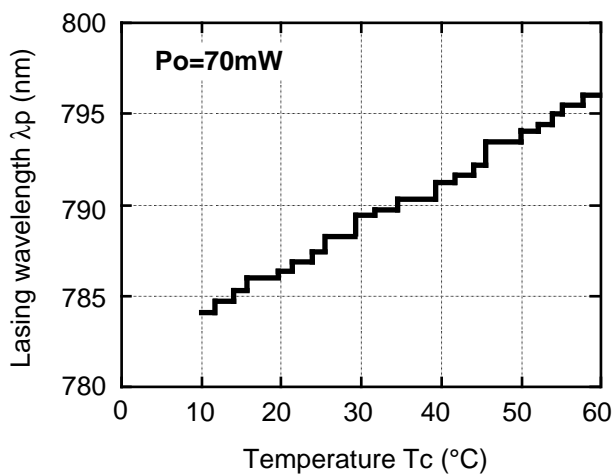
### Monitor current vs. Output power



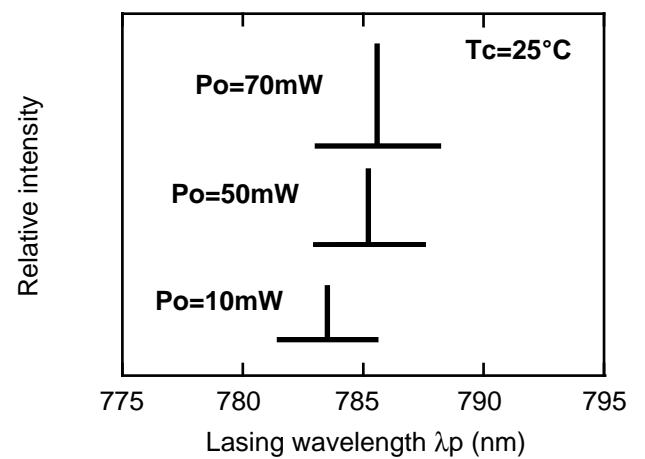
### Beam divergence



### Lasing wavelength vs. Temperature



### Output power vs. Lasing wavelength





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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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