

Index-Guided High Power AlGaAs Laser Diode

Description

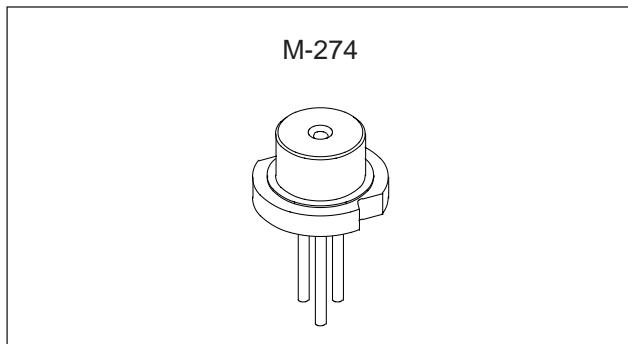
The SLD233VL is a high power index-guided AlGaAs laser diode.

Features

- Low noise
- Low power consumption

Applications

Pickups for MiniDisc recording/playback



Structure

- AlGaAs quantum well-structure laser diode
- PIN photodiode for optical power output monitor

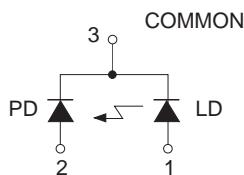
Recommended Operating Optical Power Output

30mW

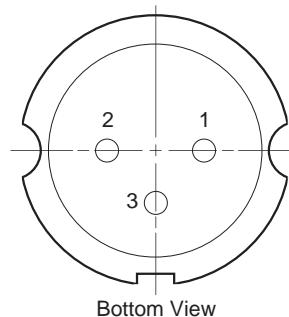
Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

- Optical power output Po 35 mW
- Reverse voltage V_R LD 2 V
 PD 15 V
- Operating temperature T_{opr} -10 to +60 $^\circ\text{C}$
- Storage temperature T_{stg} -40 to +85 $^\circ\text{C}$

Connection Diagram



Pin Configuration



1. LD ANODE
2. PD ANODE
3. COMMON

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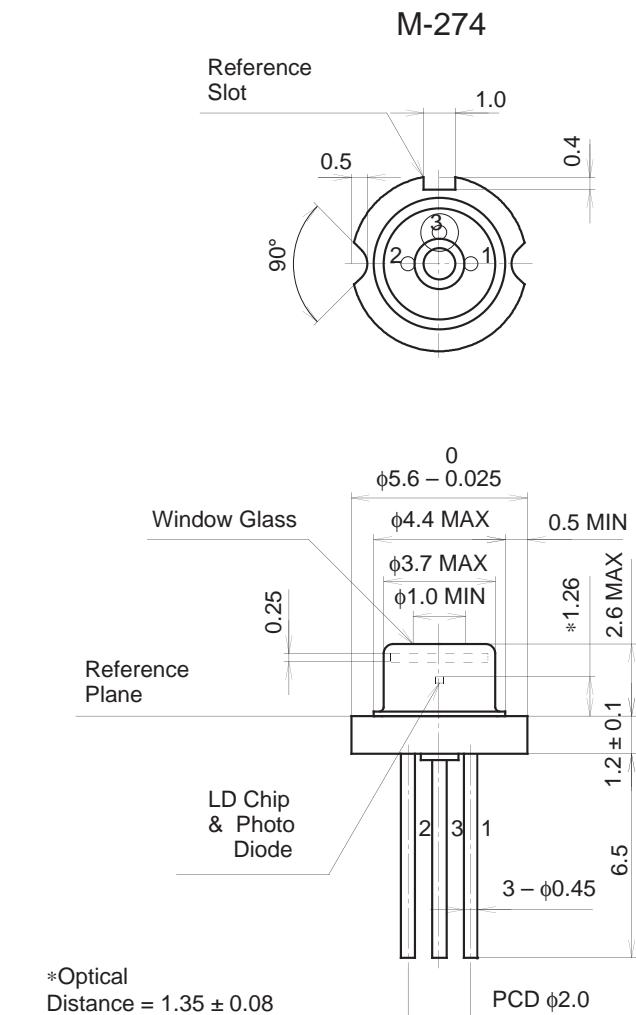
Optical and Electrical Characteristics (Tc = 25°C)

Tc: Case temperature

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Threshold current	Ith			30	40	mA	
Operating current	Iop	Po = 35mW		70	85	mA	
Operating voltage	Vop	Po = 35mW		2.0	2.5	V	
Oscillation wavelength	λ	Po = 35mW	780	790	800	nm	
Radiation angle	Perpendicular	$\theta \perp$	Po = 35mW	26	28.5	32	degree
	Parallel	$\theta //$		7.4	8.5	10.0	degree
Positional accuracy	Position	$\Delta X, \Delta Y, \Delta Z$	Po = 35mW			± 80	μm
	Angle	$\Delta \phi \perp$				± 3	degree
		$\Delta \phi //$				± 2	degree
Differential efficiency	ηD	Po = 30mW	0.55	0.9	1.2	mW/mA	
Astigmatism	As			-16		μm	
Coherence	γ	Po = 4mW		0.7	0.9		

Package Outline

Unit: mm



SONY CODE	M-274
EIAJ CODE	_____
JEDEC CODE	_____

PACKAGE WEIGHT	0.3g
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