

**Index-Guided High Power AlGaAs Laser Diode**

**Description**

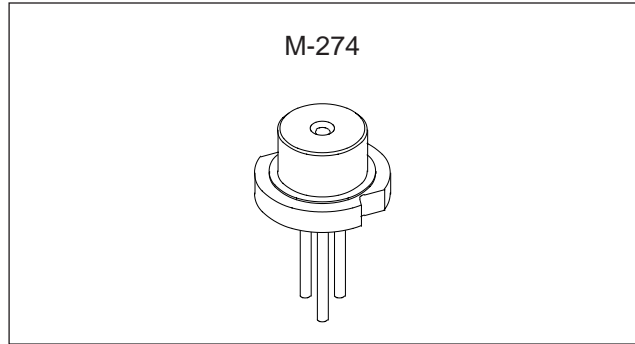
The SLD233VL is a high power index-guided AlGaAs laser diode.

**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

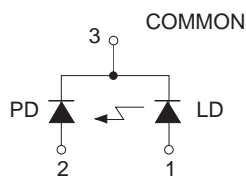
**Recommended Operating Optical Power Output**

30mW

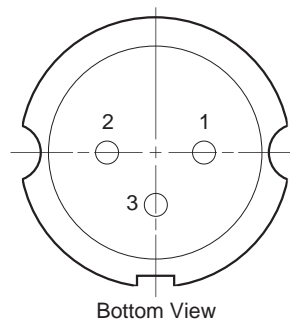
**Absolute Maximum Ratings (Tc = 25°C)**

- |                         |                   |            |    |
|-------------------------|-------------------|------------|----|
| • Optical power output  | P <sub>O</sub>    | 35         | mW |
| • Reverse voltage       | V <sub>R</sub> LD | 2          | V  |
|                         | PD                | 15         | V  |
| • Operating temperature | T <sub>opr</sub>  | -10 to +60 | °C |
| • Storage temperature   | T <sub>stg</sub>  | -40 to +85 | °C |

**Connection Diagram**



**Pin Configuration**



- 1. LD ANODE
- 2. PD ANODE
- 3. COMMON

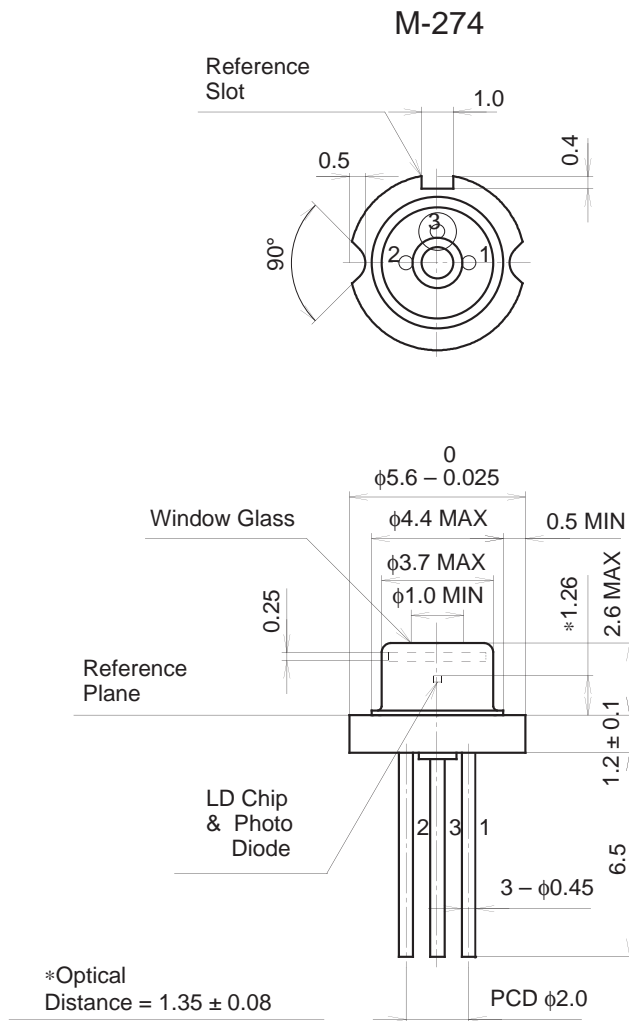
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Optical and Electrical Characteristics (T<sub>c</sub> = 25°C)T<sub>c</sub>: Case temperature

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Threshold current	I <sub>th</sub>			30	40	mA	
Operating current	I <sub>op</sub>	P <sub>o</sub> = 35mW		70	85	mA	
Operating voltage	V <sub>op</sub>	P <sub>o</sub> = 35mW		2.0	2.5	V	
Oscillation wavelength	λ	P <sub>o</sub> = 35mW	780	790	800	nm	
Radiation angle	Perpendicular	θ <sub>⊥</sub>	P <sub>o</sub> = 35mW	26	28.5	32	degree
	Parallel	θ <sub>//</sub>		7.4	8.5	10.0	degree
Positional accuracy	Position	ΔX, ΔY, ΔZ	P <sub>o</sub> = 35mW			±80	μm
	Angle	Δφ <sub>⊥</sub>				±3	degree
		Δφ <sub>//</sub>				±2	degree
Differential efficiency	η <sub>D</sub>	P <sub>o</sub> = 30mW	0.55	0.9	1.2	mW/mA	
Astigmatism	A <sub>s</sub>			-16		μm	
Coherence	γ	P <sub>o</sub> = 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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