

Index-Guided High Power AlGaAs Laser Diode

Description

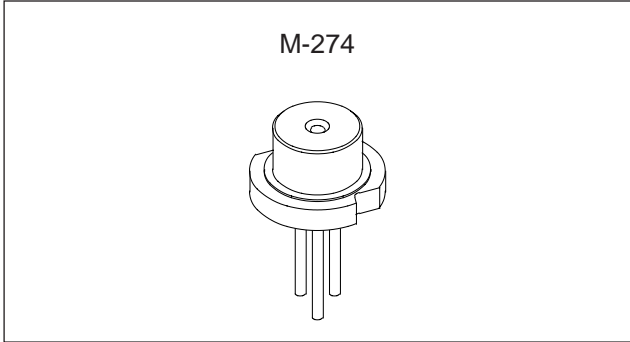
The SLD233VL is a high power index-guided AlGaAs laser diode.

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

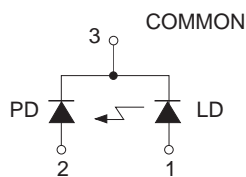
Recommended Operating Optical Power Output

30mW

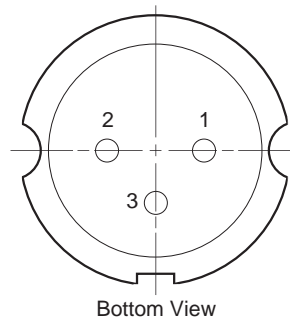
Absolute Maximum Ratings (Tc = 25°C)

• Optical power output	P _O	35	mW
• Reverse voltage	V _R LD	2	V
	PD	15	V
• Operating temperature	T _{opr}	-10 to +60	°C
• Storage temperature	T _{stg}	-40 to +85	°C

Connection Diagram



Pin Configuration



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

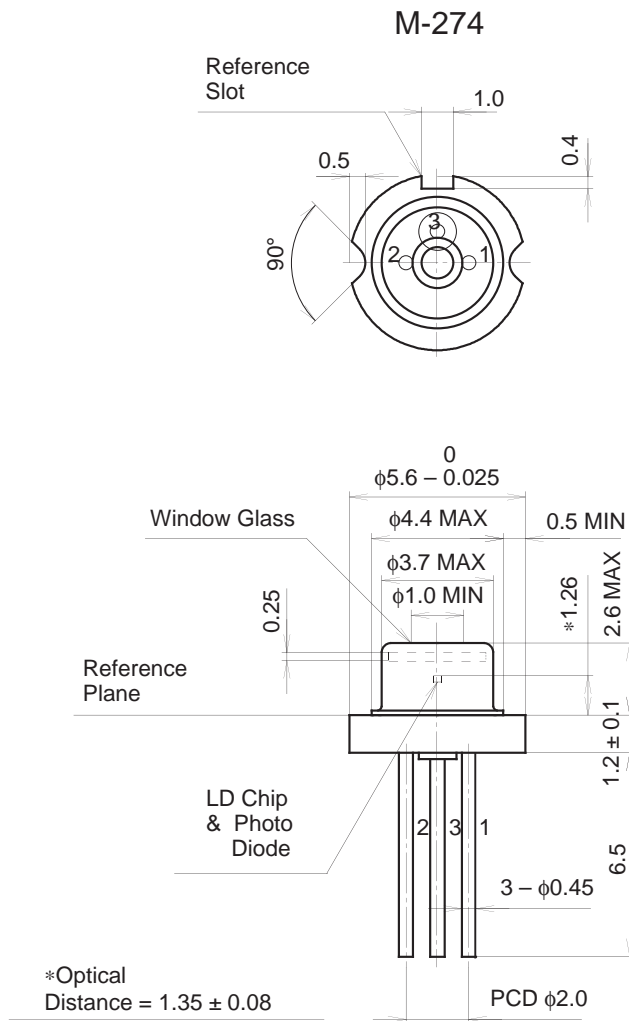
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Optical and Electrical Characteristics (T_c = 25°C)T_c: Case temperature

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