

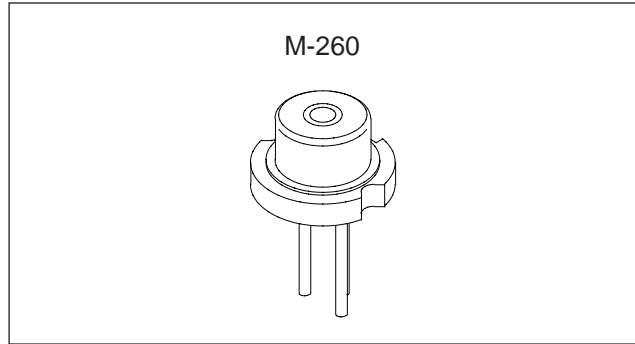
Index-Guided High Power AlGaAs Laser Diode

Description

The SLD234VL is a high power index-guided AlGaAs laser diode.

Features

- High power
- Low power consumption
- Low astigmatism
- Small package ($\phi 5.6\text{mm}$)



Applications

Pickups for optical discs

Structure

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

Recommended Operating Optical Power Output

50mW

Absolute Maximum Ratings (Tc = 25°C)

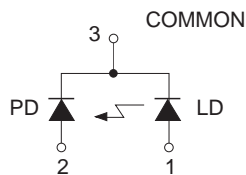
- Optical power output P_o

50	mW (CW)
80	mW (Pulse)

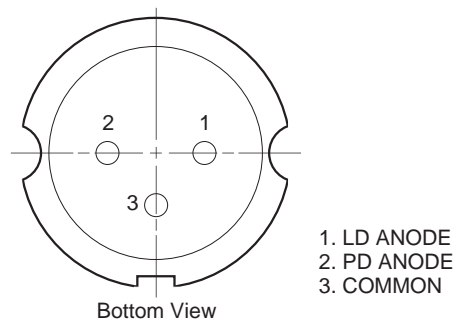
Pulse period of 1 μ s or less
Duty of 50% or less
- Reverse voltage V_R

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



Sony reserves the right to change products and specifications without prior notice. This information does not convey any license by any implication or otherwise under any patents or other right. Application circuits shown, if any, are typical examples illustrating the operation of the devices. Sony cannot assume responsibility for any problems arising out of the use of these circuits.

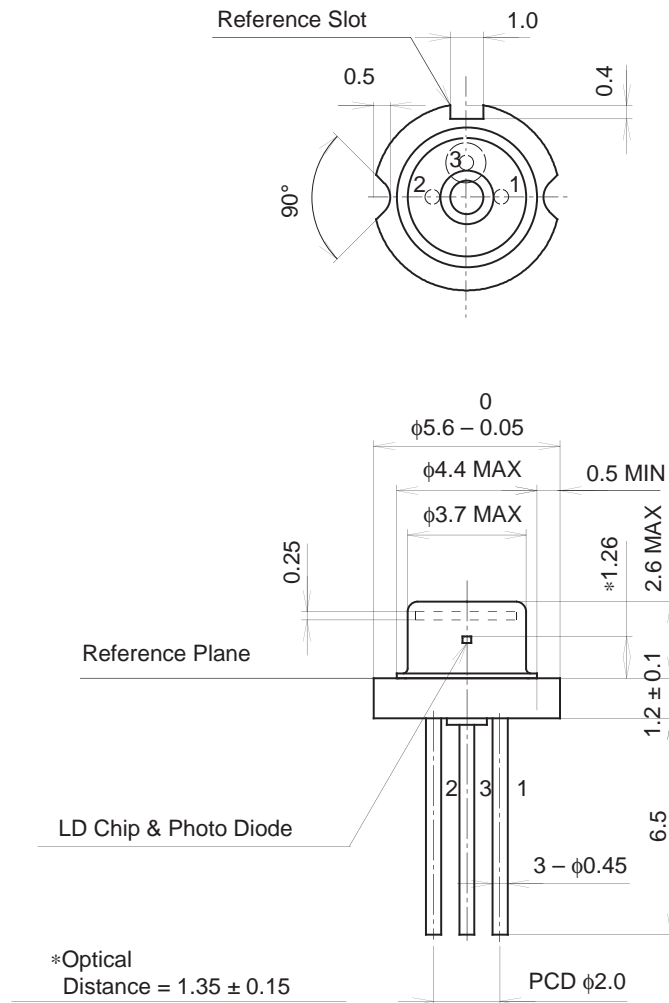
Optical and Electrical Characteristics (T_c = 25°C)T_c: Case temperature

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Threshold current	I _{th}	CW	15	20	30	mA	
Operating current	I _{op}	CW, P _o = 50mW	60	70	85	mA	
Operating voltage	V _{op}	CW, P _o = 50mW	—	2.0	2.5	V	
Oscillation wavelength	λ _p	CW, P _o = 50mW	775	785	795	nm	
Differential efficiency	η _D	CW, P _o = 50mW	0.8	1.0	1.3	mW/mA	
Radiation angle	Parallel	θ _{//}	CW, P _o = 50mW	7	8.5	10	degree
	Perpendicular	θ _⊥	CW, P _o = 50mW	19	22	27	degree
Astigmatism	As	CW, P _o = 50mW	—	—	-6	μm	
Monitor current	I _m	CW, P _o = 50mW, VR (PIN) = 5V	—	0.05	—	mA	
Positional accuracy	Angle	Δφ _{//}	CW, P _o = 50mW	—	—	±2.0	degree
		Δφ _⊥	CW, P _o = 50mW	—	—	±3.0	degree
	Position	ΔX, ΔY, ΔZ		—	—	±80	μm

Package Outline

Unit: mm

M-260



SONY CODE	M-260
EIAJ CODE	_____
JEDEC CODE	_____

PACKAGE WEIGHT	0.3g
----------------	------