

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 (φ5.6mm)

Applications

Pickups for optical discs

Structure

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

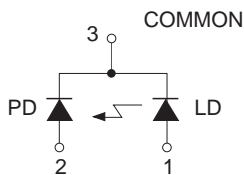
Recommended Operating Optical Power Output

50mW

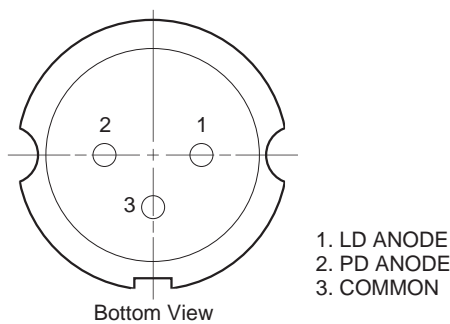
Absolute Maximum Ratings (Tc = 25°C)

- | | | | |
|-------------------------|------|------------|-----------------------------|
| • Optical power output | Po | 50 | mW (CW) |
| | | 80 | mW (Pulse) |
| | | | Pulse period of 1μs or less |
| | | | Duty of 50% or less |
| • Reverse voltage | VR | LD 2 | V |
| | | PD 15 | V |
| • Operating temperature | Topr | -10 to +60 | °C |
| • Storage temperature | Tstg | -40 to +85 | °C |

Connection Diagram



Pin Configuration



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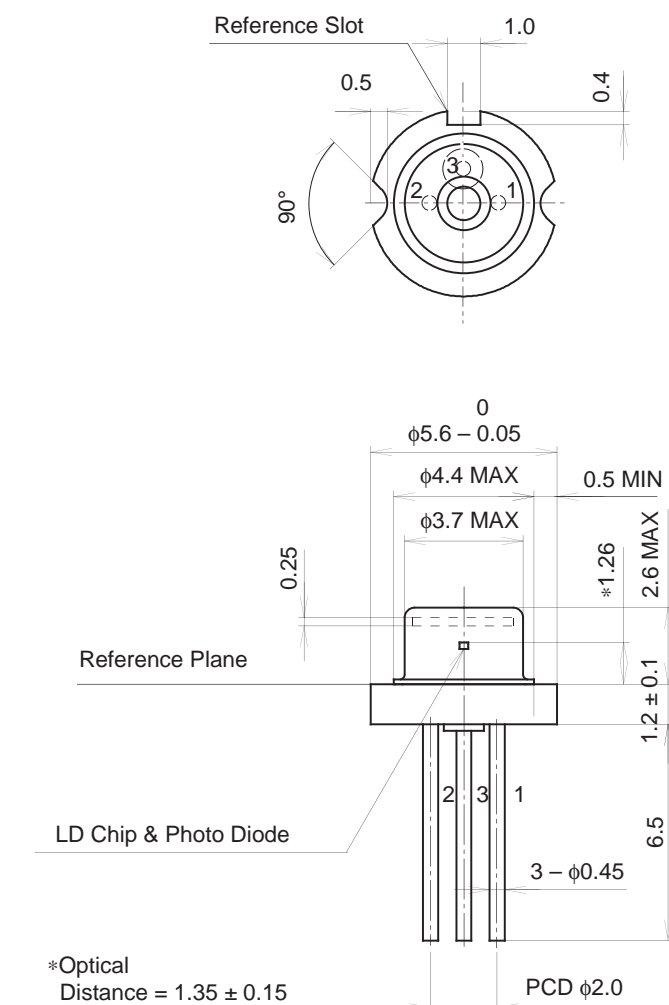
Optical and Electrical Characteristics (T_c = 25°C)T_c: Case temperature

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current		I _{th}	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
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