SONY

SLD1137VS

650nm Index-Guided Red Laser Diode

Preliminary

Description

The SLD1137VS is an index-guided red laser diode for BCS.

Operating current is 25mA lower than SLD1133VS.

Features

- Small astigmatism (7µm typ.)
- Low operating current (35mA typ.)
- Small package (ϕ5.6mm)
- Single longitudinal mode

Applications

Bar code scanner

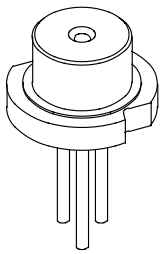
Structure

- AlGaInP MQW laser diode
- PIN photodiode to monitor laser beam output

Recommend Optical Power Output

5mW

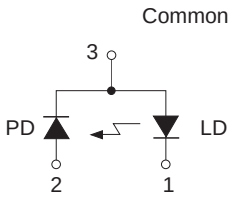
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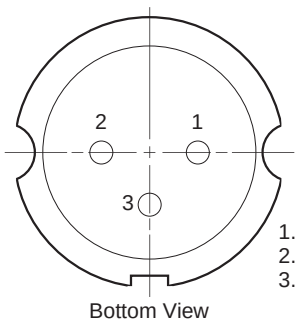
Absolute Maximum Ratings (Tc = 25°C)

• Optical power output	Po		7	mW
• Reverse voltage	V_R	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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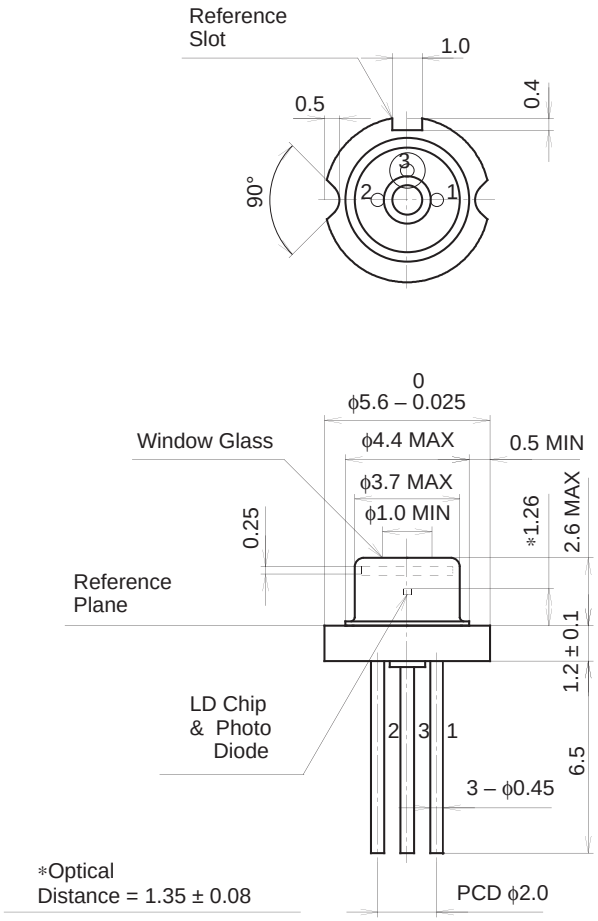
PE99202-PS

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

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current		Ith			30	40	mA
Operating current		Iop	Po = 5mW		35	45	mA
Operating voltage		Vop	Po = 5mW		2.2	2.7	V
Wavelength		λp	Po = 5mW		650	655	nm
Radiation angle	Perpendicular	θ⊥	Po = 5mW	24	30	40	degree
	Parallel	θ//		6	8	12	degree
Positional accuracy	Position	ΔX, ΔY, ΔZ	Po = 5mW			±80	µm
	Angle	Δϕ//				±3	degree
		Δϕ⊥				±3	degree
Differential efficiency		ηD	Po = 5mW	0.3	0.5	0.8	mW/mA
Astigmatism		As	Po = 5mW		7	15	µm
Monitor current		Imon	Po = 5mW, V_R = 5V	0.05	0.1	0.5	mA

Package Outline Unit: mm

M-274



SONY CODE	M-274
EIAJ CODE	————
JEDEC CODE	————

PACKAGE WEIGHT	0.3g