

LASER DIODE

RLD-78PP-G1

DEVICE LASER DIODE
 TYPE RLD-78PP-G1
 STRUCTURE AlGaAs Double-hetero Visible L.D.
 PACKAGE DIMENSIONS Figure-1
 PIN CONNECTION Figure-2

ABSOLUTE MAXIMUM RATINGS (Tc=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Optical Output	Po	5	mW
Reverse Voltage	Laser	Vr	V
	PIN PD	Vr(PIN)	V
Operating Temperature	Top	-10~+60	°C
Storage Temperature	Tstg	-40~+85	°C

CHARACTERISTICS (Tc=25°C)

No.	PARAMETER	SYM BOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT	Control method
1	Threshold Current	Ith		10	20	45	mA	* 1
2	Operating Current	Iop	Po=3mW	20	40	65	mA	* 1
3	Operating Voltage	Vop	Po=3mW *	—	1.9	2.3	V	* 1
4	Output Efficiency	η	$\frac{2mW}{I(3mW)-I(1mW)}$	0.1	0.2	0.3	mW/mA	* 1
5	Monitor Current	Im	Po=3mW V _{rpin} =15V	0.3	0.55	0.9	mA	* 1
6	Beam Divergence (FWHM)	Parallel	Po=3mW	8	11	15	deg	* 1
7		Perpen-dicular		25	30	38	deg	* 1
8	Beam Tolerance	Parallel	Po=3mW	—	—	±2	deg	* 1
9		Perpen-dicular		Δθ ⊥	—	—	±3	deg
10	Positional Accuracy of Point Source	Δ X Δ Y Δ Z	—	—	—	±80	μm	* 1
11	Lasing Wavelength	λ	Po=3mW	770	785	795	nm	* 1
12	Astigmatism	ΔI	NA=0.55 Po=3mW	—	5	10	μm	* 2
13	Droop	ΔP	Po=3mW	—	5	10	%	* 2

$\theta //, \theta \perp$ are defined as full width of half maximum.

Control method * 1 100% inspection * 2 Random sample

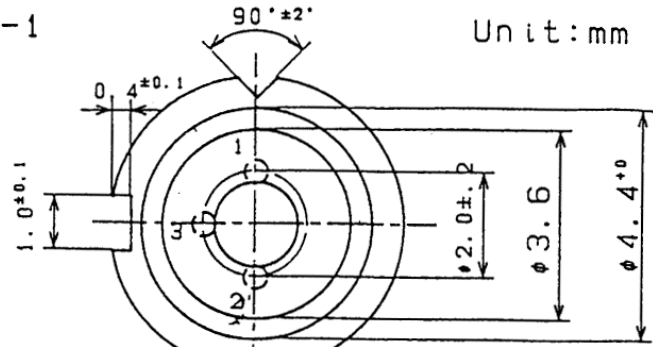
1. This device is classified as a class III b Laser product, emitting invisible laser radiation. Direct exposure should be avoided and never look at the emitting surface.
2. Laser diodes are susceptible to deterioration or damage from electrostatic discharges and other current surges resulting in significantly reduced reliability. Always observe precautions for handling of electrostatic discharge sensitive devices.
3. TC: Case Temperature
 In This Specification "Operating Temperature" and "Strong Temperature" are defined as case temperature.

ROHM

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Figure-1



Unit:mm

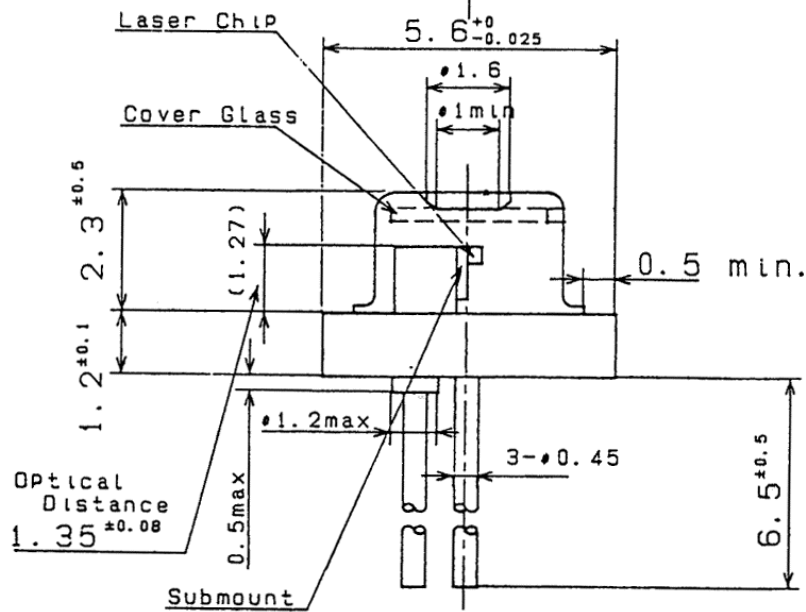
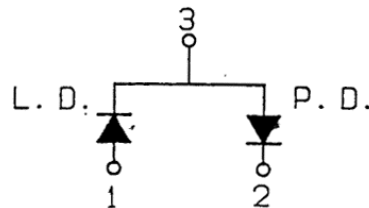


Figure-2



<p>DANGER</p>	<p>INVISIBLE SEMICONDUCTOR LASER</p>
<p>INVISIBLE LASER RADIATION-AVOID DIRECT EXPOSURE TO BEAM</p>	<p>AVOID EXPOSURE-Invisible Laser radiation is emitted from this aperture</p>
<p>MAXIMUM OUTPUT 30 mW WAVELENGTH 770-795 nm CLASS IIb LASER PRODUCT</p>	<p>ROHM Laser Diode This product complies with 21 CFR Part 1040.10 and 1040.11 ROHM Co., LTD 21, Sawa Masumae-cho, Uryu-ku, Kyoto 615, Japan.</p>