

# LT050PD

## Red Laser Diode

### Laser Diode for DVD (635nm-5mW)

#### General Description

Sharp's red laser diodes **LT050PD** have been developed for DVD that will bring great hope to visual media of next generation.

#### Features

- (1) Optical Power Output: 5mW
- (2) Wavelength: 635nm
- (3) Standard  $\phi 9$ mm package
- (4) Stable transverse mode
- (5) High temperature operation at 60°C
- (6) Realize high temperature operation by introducing a tensile strain into the multi-quantum well active layer.
- (7) Stable optical characteristics by developing an index guide structure of MBE method 2 times growth.
- (8) Pair use with Sharp's OPIC light detector **IS1630** is recommended.

\*OPIC: OPIC (Optical IC) is a trademark of the SHARP Corporation.  
An OPIC consists of a light-detecting element and signal-processing circuit integrated onto a single chip.

#### Applications

- DVD Players
- Bar code readers
- Pointers etc.

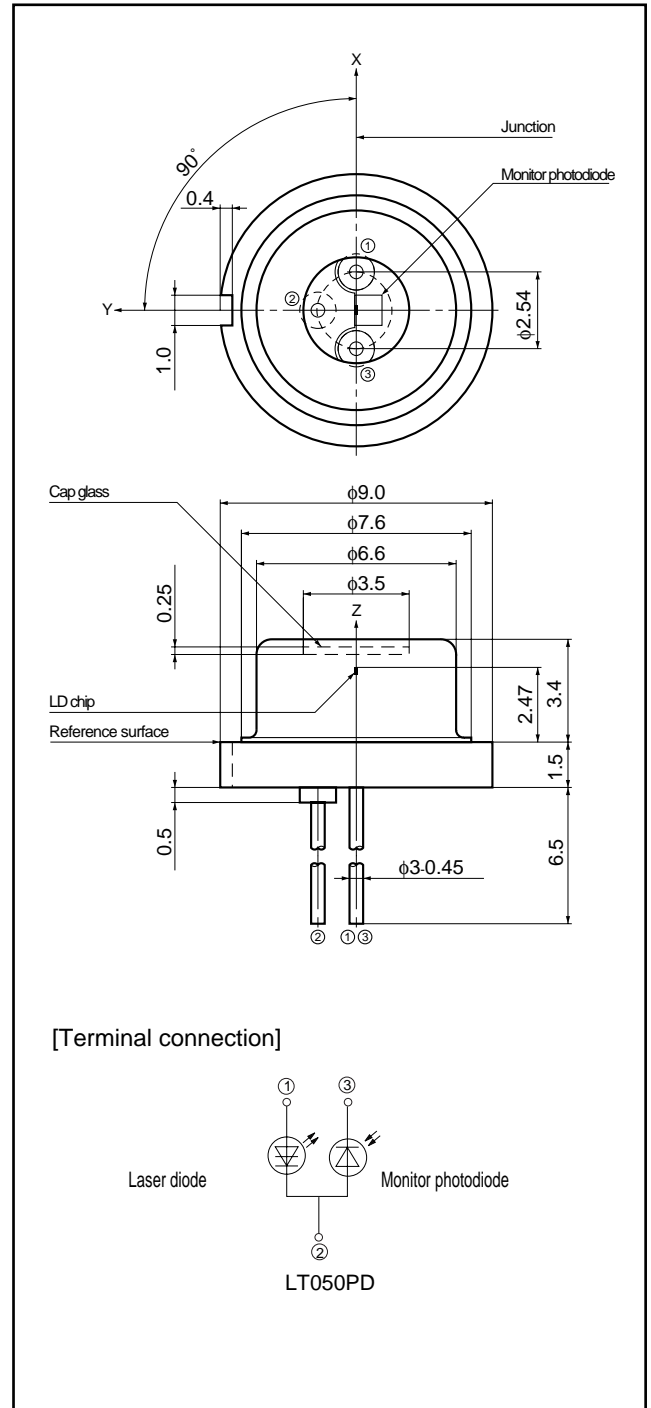
#### Electro-optical Characteristics

(Tc=25°C, Po=3mW)

Parameter	Units	Ratings(TYP.)
Optical power output	Po	MAX. 5 mW
Wavelength	$\lambda_p$	635 nm
Threshold	Ith	45 mA
Operating current	Iop	55 mA
Operating voltage	Vop	2.3 V
Angle	Parallel	$\theta_{\parallel}$ 8 °
	Perpendicular	$\theta_{\perp}$ 30 °

#### Outline Dimensions

(Unit:mm)



(notice)

• In the absence of device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.

• Specifications are subject to change without notice for improvement.  
(Internet)

• Data for Sharp's optoelectronic/power devices is provided for internet. ( Address <http://www.sharp.co.jp/ecg/>)