

# PD1450-35T52 InGaAs PIN-PD

PD1450-35T52 is InGaAs PIN-photodiode. This PIN-photodiode consists of a large chip with 0.35x0.35mm active area mounted on the TO-18 stem and is hermetical sealed by metal can with flat lens.

These devices are designed to be easy of setting up optically with a wide angle of half sensitivity of  $\pm 40^\circ$ .

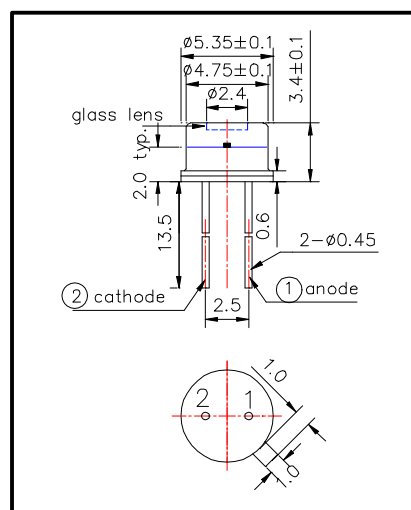
## Features

- 1) High Reliability
- 2) High Response

## Specifications

- 1) Product Name InGaAs PIN Photo-Diode
- 2) Type No. PD1450-35T52
- 3) Chip
  - (1) Active Area 0.35mmx0.35mm
- 4) Package
  - (1) Type TO-18
  - (2) Lens Glass Flat Lens (f2.4)
  - (2) Cap Gold Plated

Outer dimension(Unit:mm)



## Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	10	V
Operating Temperature	$T_{OPR}$	-20 ~ +90	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-30 ~ +100	$^\circ\text{C}$
Soldering Temperature	$T_{SOL}$	260	$^\circ\text{C}$

‡ Pulse Soldering condition: Soldering condition must be completed within 2 seconds at  $240^\circ\text{C}$

## Electro-Optical Characteristics [25 $^\circ\text{C}$ ]

Item	Symbol	Condition	Minimum	Typical	Maximum	unit
Photo Responsivity	$R_E$	$V_R=0V, I_P=1450\text{nm}$		0.9		A/W
Photo Current	$I_L$	$V_R=0V, I_P=1450\text{nm}$	10	14		$\mu\text{A}(\pm 1)$
Dark Current	$I_D$	$V_R=1V$			100	nA
Spectral Responsivity (Peak)	$I_P$	$V_R=0V$	1000		1600	nm
Half Angle of Sensitivity	$Q_{1/2}$	$V_R=0V$		$\pm 40$		deg.
Total Capacitance	$C_T$	$f=1\text{MHz}, V_R=1V$		20		pF
Rise/Fall Time(10%~90%)	$t_r$	$R_L=1\text{KW}, V_R=1V$		10		ns
	$t_f$			5		ns

‡ Measured by calibrated tool