

# PNA3202

## Silicon PIN Photodiodes

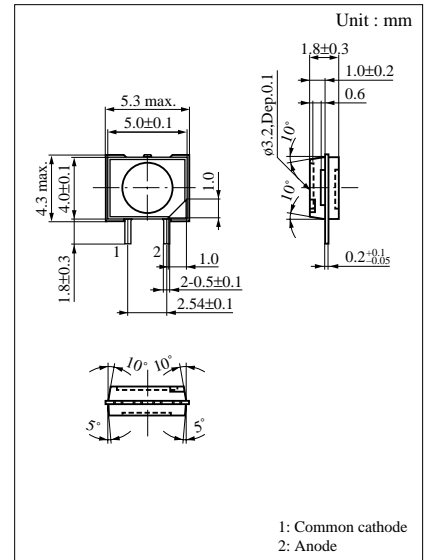
For optical information systems

### ■ Features

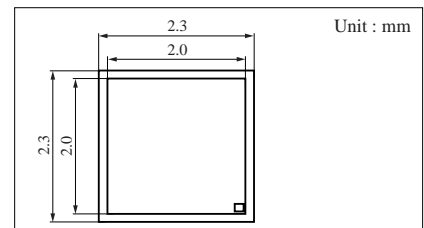
- Fast response :  $t_r, t_f = 30$  ns (typ.)
- Good photo current linearity
- Low dark current :  $I_D = 10$  nA (max.)
- Wide spectral sensitivity

### ■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Reverse voltage (DC)	$V_R$	30	V
Power dissipation	$P_D$	30	mW
Operating ambient temperature	$T_{opr}$	-25 to +85	°C
Storage temperature	$T_{stg}$	-30 to +100	°C



### ■ Dimensions of detection area



### ■ Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Dark current	$I_D$	$V_R = 10V$		1	10	nA
Photo current	$I_L$	$V_R = 10V, L = 1000 \text{ lx}^{*1}$		40		$\mu\text{A}$
Peak sensitivity wavelength	$\lambda_P$	$V_R = 10V$		900		nm
Response time	$t_r, t_f^{*2}$	$V_R = 10V, R_L = 50\Omega$		30		ns
Capacitance between pins	$C_t$	$V_R = 10V, f = 1\text{MHz}$		10		pF
Acceptance half angle	$\theta$	Measured from the optical axis to the half power point		65		deg.
Photo sensitivity	$S$	$V_R = 10V, \lambda = 800\text{nm}$	0.50	0.55	0.60	A/W

\*1 White tungsten lamp light source (color temperature  $T = 2856\text{K}$ )

\*2 Semiconductor laser light source ( $\lambda = 800\text{nm}$ )

