

PNZ121S (PN121S)

Silicon planar type

For optical control systems

■ Features

- Stable operations in high illuminance region
- Low dark current
- Fast response: $t_r = 1 \mu s$ (typ.)
- Small size ($\phi 3$) ceramic package

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-collector voltage (Base open)	V_{ECO}	5	V
Collector current	I_C	10	mA
Collector power dissipation	P_C	50	mW
Operating ambient temperature	T_{opr}	-25 to +85	$^\circ C$
Storage temperature	T_{stg}	-30 to +100	$^\circ C$

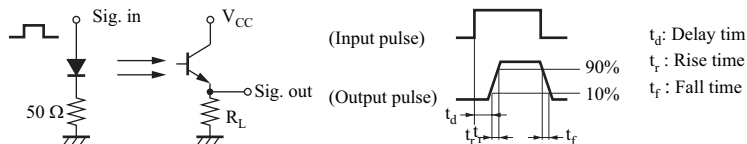
■ Electrical-Optical Characteristics $T_a = 25^\circ C \pm 3^\circ C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Photocurrent *1	I_L	$V_{CE} = 10 V, L = 1000 \text{ lx}$	120		280	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 10 V$		1	100	νA
Peak sensitivity wavelength	λ_{PD}	$V_{CE} = 10 V$		800		nm
Half-power angle	θ	The angle when the photocurrent is halved		30		$^\circ$
Rise time *2	t_r	$V_{CC} = 10 V, I_L = 5 \text{ mA}, R_L = 100 \Omega$		1.0		μs
Fall time *2	t_f			1.3		μs

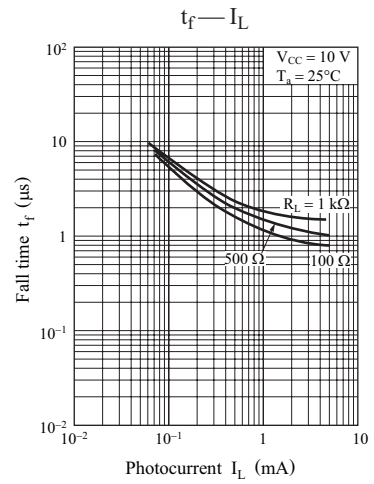
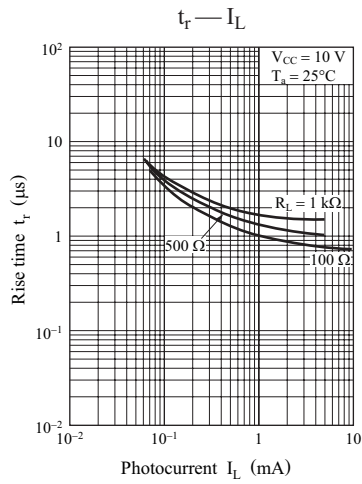
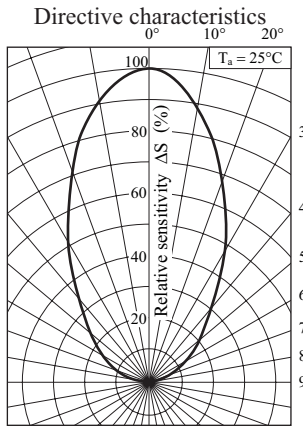
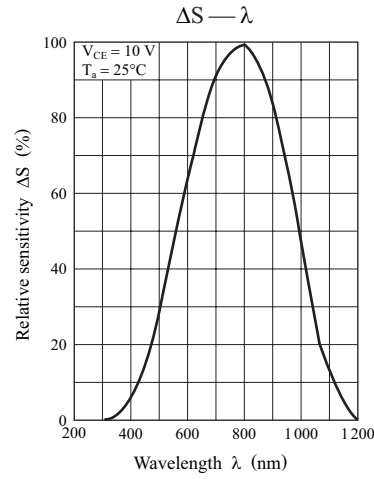
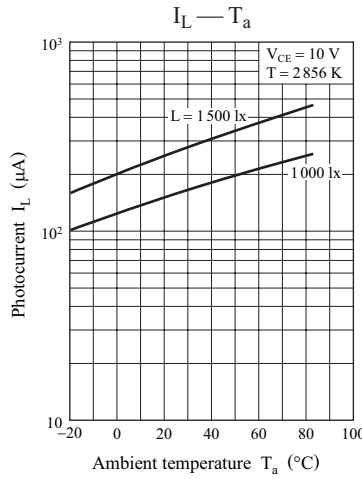
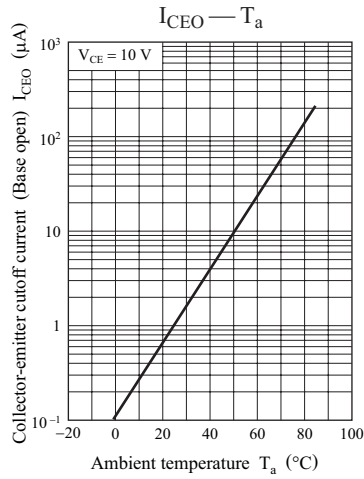
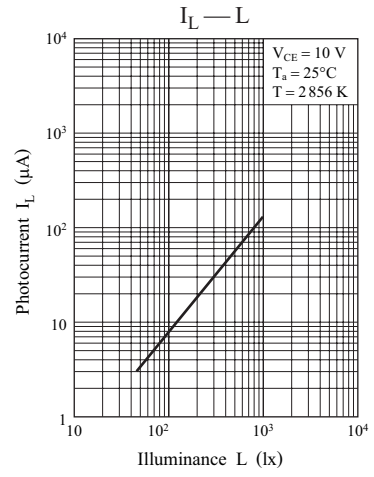
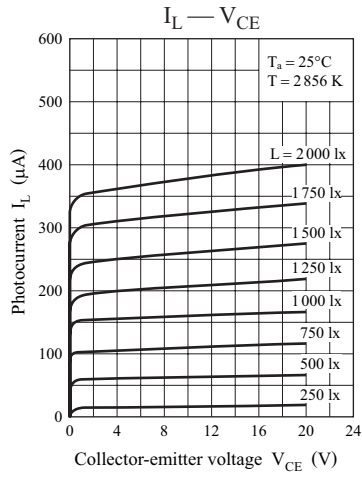
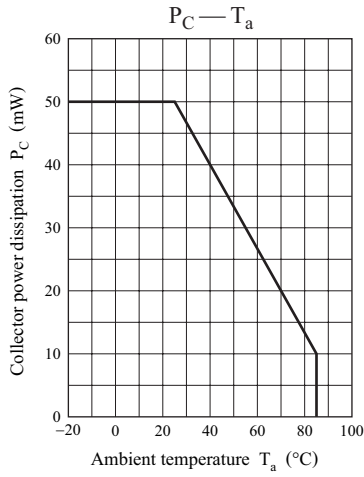
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. Spectral sensitivity characteristics: Sensitivity for wave length over 400 nm maximum sensitivity ratio is 100%.
3. This device is designed by disregarding radiation.
4. *1: Source: Tungsten lamp (color temperature 2 856K)

*2: Switching time measurement circuit

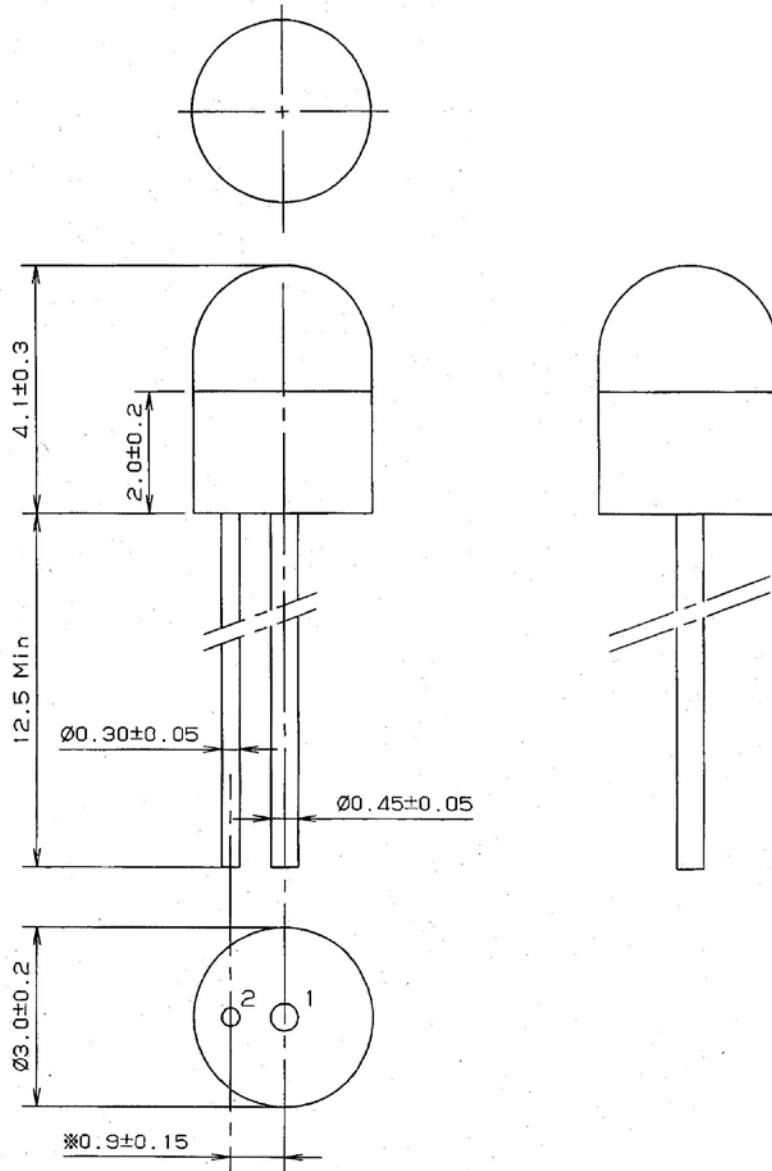


Note) The part number in the parenthesis shows conventional part number.



■ Package (Unit: mm)

CPDLTN2S0001



- Pin name
- 1: Collector
- 2: Emitter

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