

PNA3W01L (PN307)

Silicon planar type

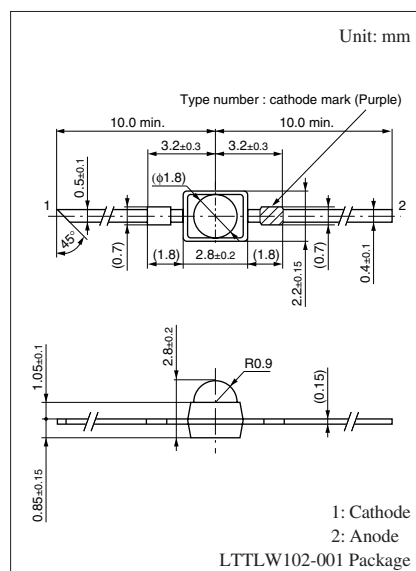
For optical control systems

■ Features

- High sensitivity, high reliability
- Peak emission wavelength matched with infrared light emitting diodes: $\lambda_p = 800 \text{ nm}$ (typ.)
- Double end type small size package

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

| Parameter | Symbol | Rating | Unit |
|-------------------------------|-----------|-------------|------------------|
| Reverse voltage | V_R | 30 | V |
| Power dissipation | P_D | 10 | mW |
| Operating ambient temperature | T_{opr} | -25 to +85 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -30 to +100 | $^\circ\text{C}$ |



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

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--------------------------|-------------|--|-----|-----|-----|---------------|
| Dark current | I_D | $V_R = 10 \text{ V}$ | | | 50 | nA |
| Photocurrent *1 | I_L | $V_R = 10 \text{ V}$, $L = 1000 \text{ lx}$ | 5 | | | μA |
| Peak emission wavelength | λ_p | $V_R = 10 \text{ V}$ | | 800 | | nm |
| Rise time *2 | t_r | $V_R = 10 \text{ V}$, $R_L = 1 \text{ k}\Omega$ | | 50 | | ns |
| Fall time *2 | t_f | | | 50 | | ns |
| Rise time *2 | t_r | $V_R = 10 \text{ V}$, $R_L = 100 \text{ k}\Omega$ | | 5 | | μs |
| Fall time *2 | t_f | | | 5 | | μs |
| Half-power angle | θ | The angle from which photocurrent becomes 50% | | 24 | | $^\circ$ |

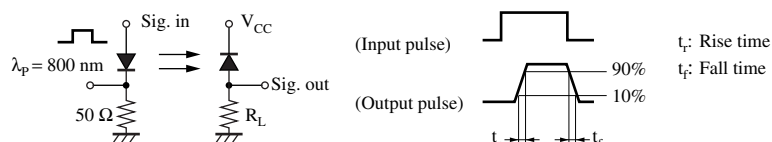
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

2. Spectral sensitivity characteristics: Sensitivity for wave length over 400 nm maximum sensitivity ratio is 100%.

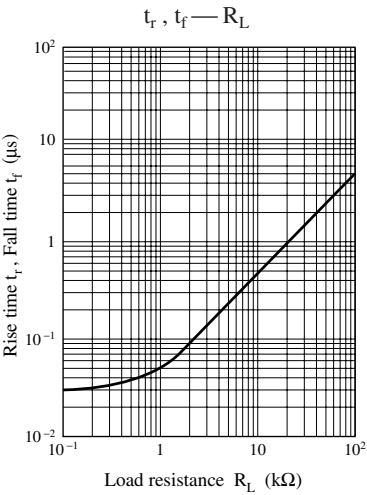
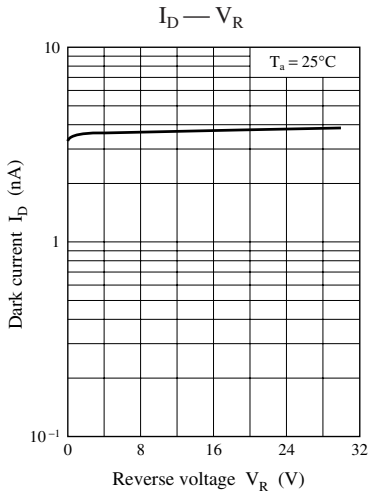
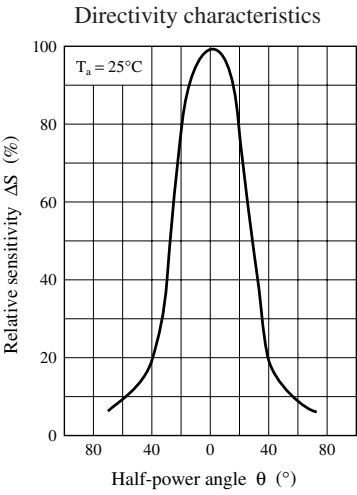
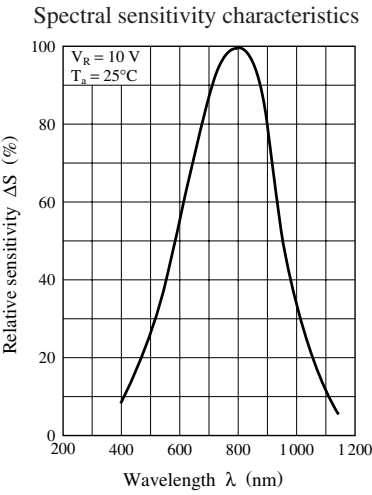
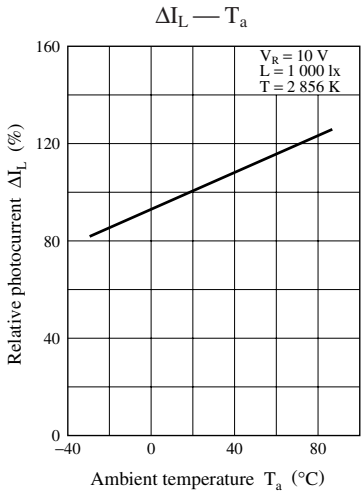
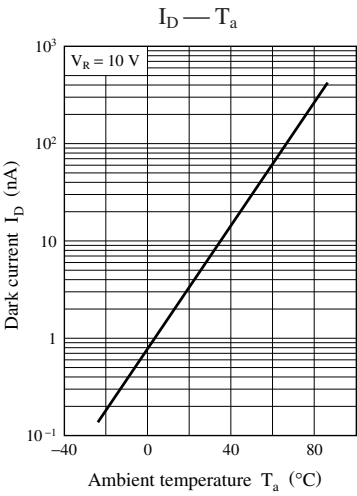
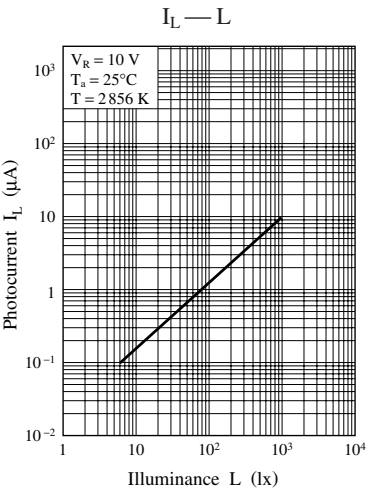
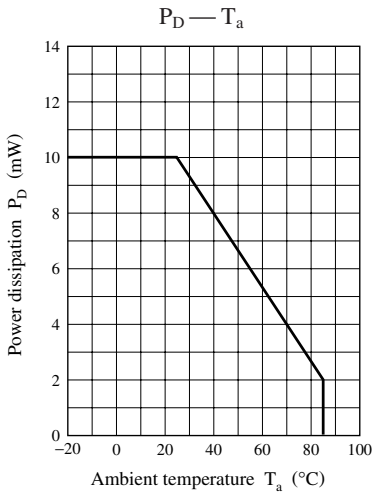
3. This device is designed be disregarded radiation.

4. *1: Source: Tungsten (color temperature 2856 K)

*2: Switching time measurement circuit



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



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