

PNZ330CL (PN330CL)

PIN Photodiode

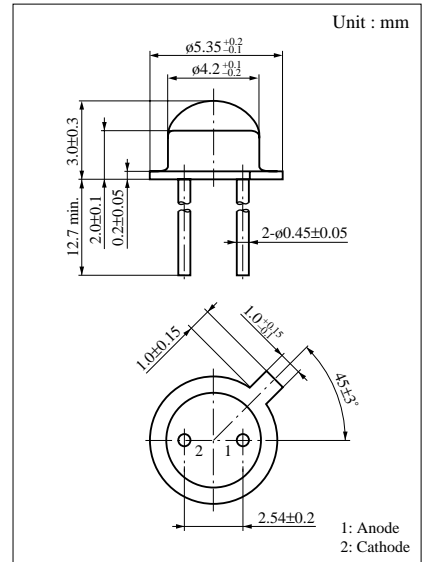
For optical fiber communication systems

■ Features

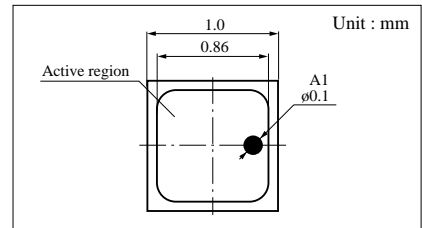
- TO-18 standard type package
- High coupling capability suitable for plastic fiber
- High quantum efficiency
- High-speed response

■ Absolute Maximum Ratings (Ta = 25°C)

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



■ Dimensions of detection area

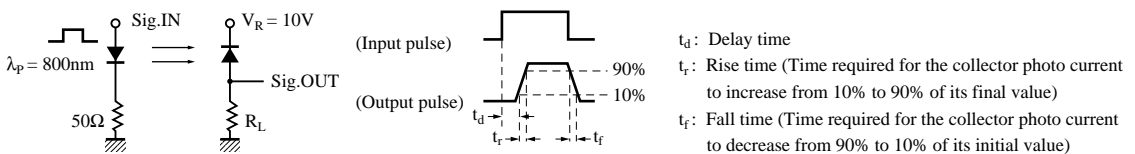


■ Electro-Optical Characteristics (Ta = 25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|-----------------------------|-----------------|--|-----|-----|-----|---------------|
| Dark current | I_D | $V_R = 10V$ | | 0.1 | 10 | nA |
| Photo current | I_L | $V_R = 10V, L = 1000 \text{ lx}^{*1}$ | 7 | 10 | | μA |
| Peak sensitivity wavelength | λ_p | $V_R = 10V$ | | 850 | | nm |
| Response time | t_r, t_f^{*2} | $V_R = 10V, R_L = 50\Omega$ | | 2 | | ns |
| Capacitance between pins | C_t | $V_R = 10V, f = 1\text{MHz}$ | | 7 | | pF |
| Acceptance half angle | θ | Measured from the optical axis to the half power point | | 70 | | deg. |

*1 Measurements were made using a tungsten lamp (color temperature T = 2856K) as a light source.

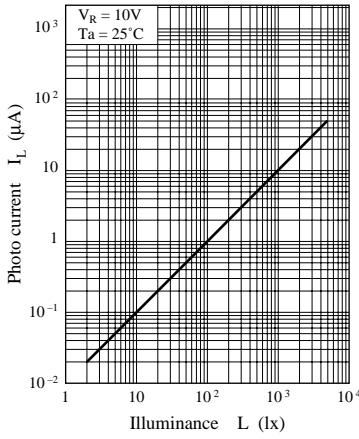
*2 Switching time measurement circuit



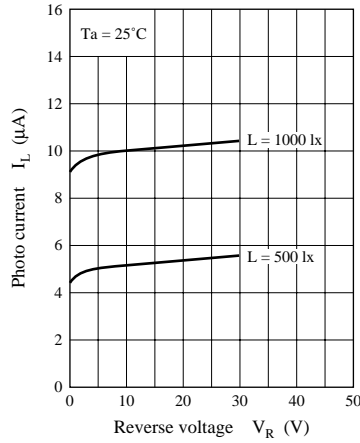
Note) Difficult to guarantee compliance with moisture resistance standard (MIL-STD-202D)

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

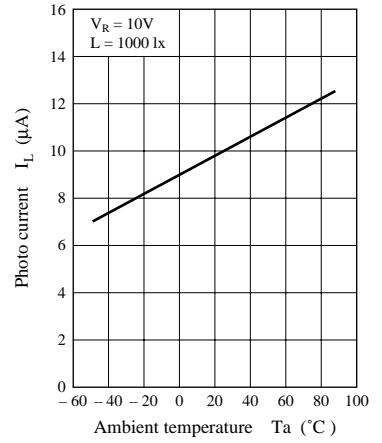
$I_L - L$



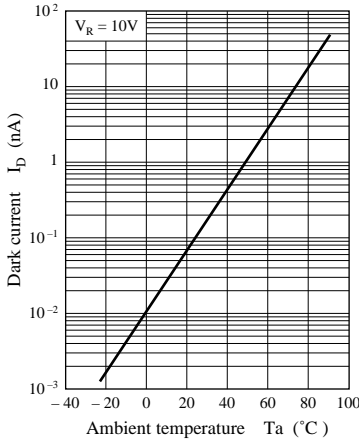
$I_L - V_R$



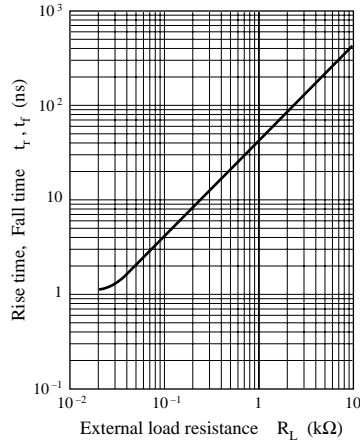
$I_L - T_a$



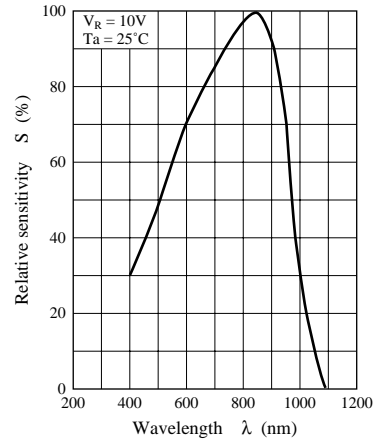
$I_D - T_a$



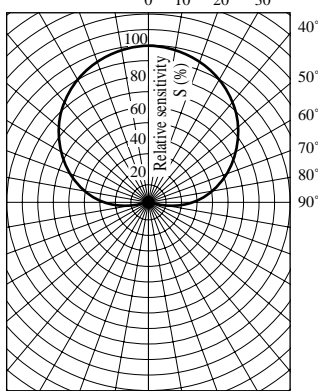
$t_r, t_f - R_L$



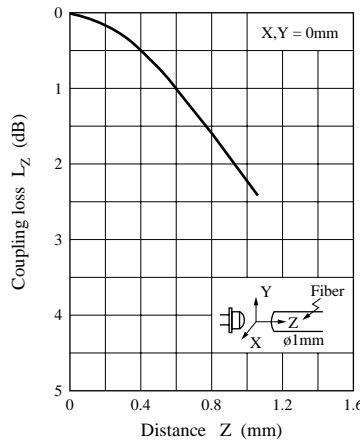
Spectral sensitivity characteristics



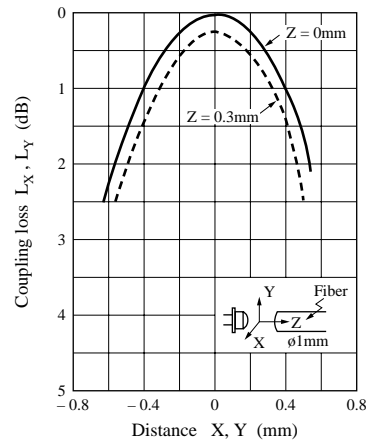
Directivity characteristics



Coupling loss characteristics



Coupling loss characteristics



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