

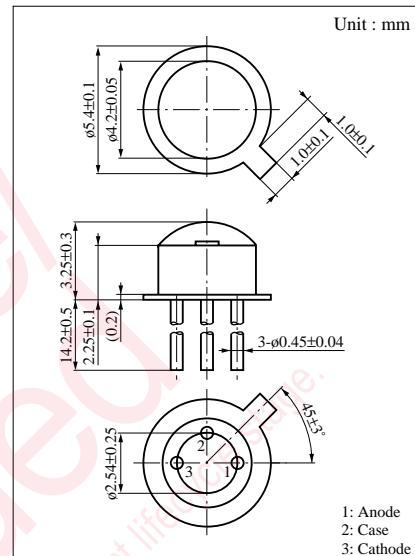
PNZ331CL (PN331CL)

PIN Photodiode

For optical fiber communication systems

■ Features

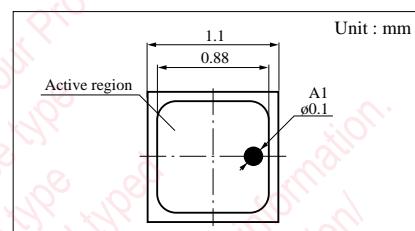
- TO-18 standard type package
- High coupling capability suitable for plastic fiber
- High quantum efficiency
- High-speed response



■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Reverse voltage (DC)	V _R	30	V
Power dissipation	P _D	50	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 lx ^{*1}	7	14		µA
Peak sensitivity wavelength	λ _P	V _R = 10V		900		nm
Response time	t _r , t _f ^{*2}	V _R = 10V, R _L = 50Ω		2		ns
Capacitance between pins	C _t	V _R = 10V		3		pF
Photodetection sensitivity	R	V _R = 10V, λ = 800nm		0.55		A/W
Acceptance half angle	θ	Measured from the optical axis to the half power point		70		deg.
Photodetection surface shape	D	Effective detection area		□0.88		mm

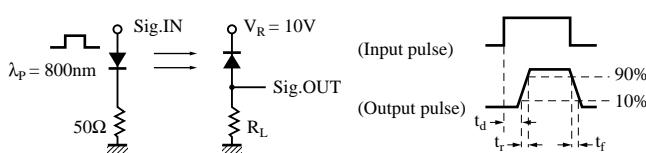
Note 1) Spectral sensitivity: Sensitivity at wavelengths exceeding 400 nm as a percentage of maximum sensitivity is 100%

Note 2) This product is not designed to withstand electromagnetic radiation or heavy-charge particles.

Note 3) Difficult to guarantee compliance with moisture resistance standard (MIL-STD-202D)

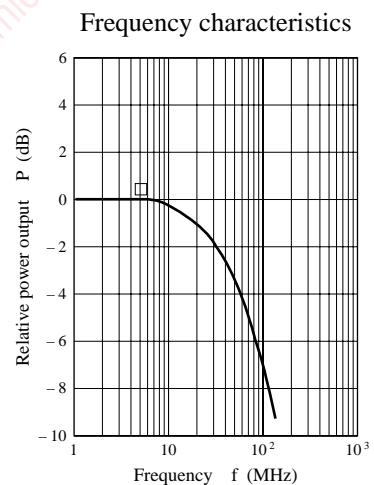
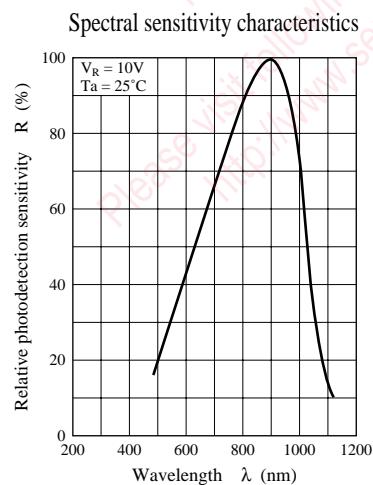
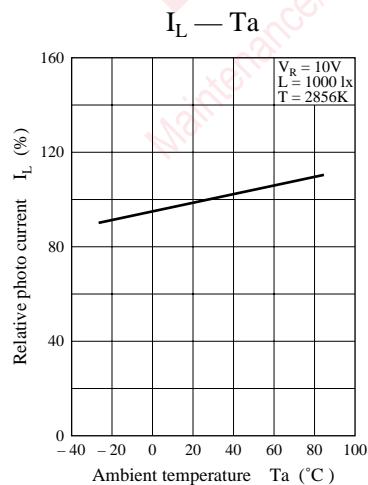
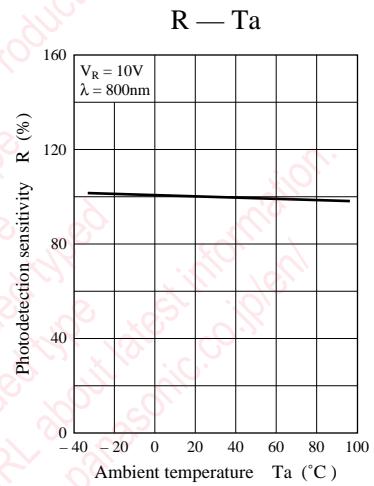
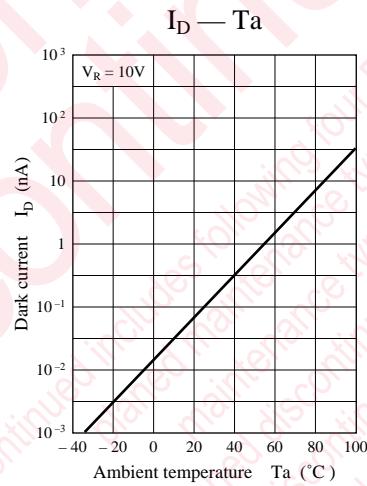
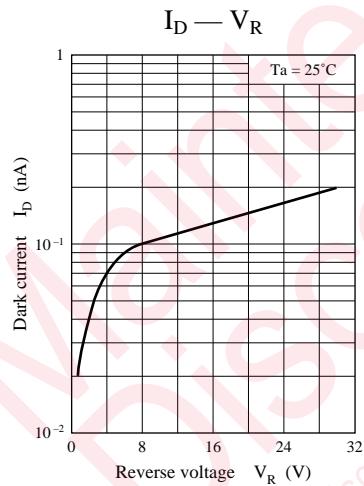
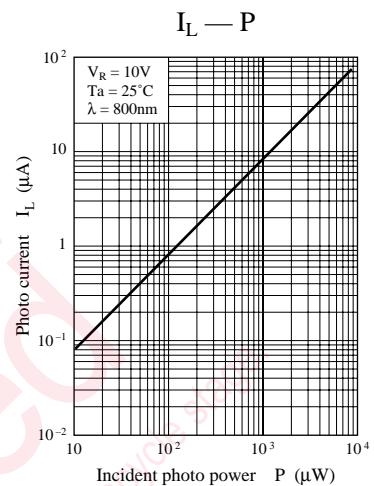
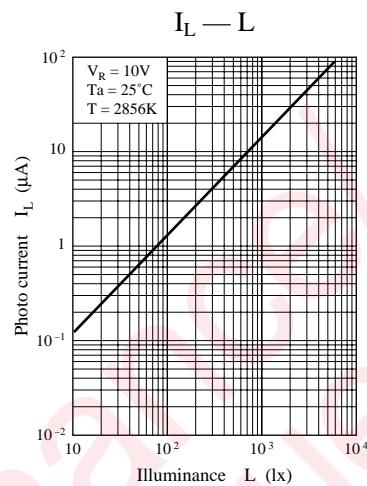
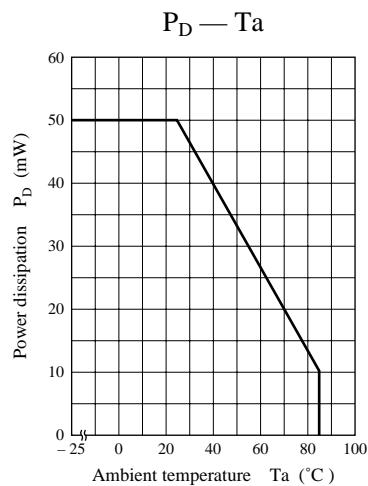
*1 Measurements were made using a tungsten lamp (color temperature T = 2856K) as a light source.

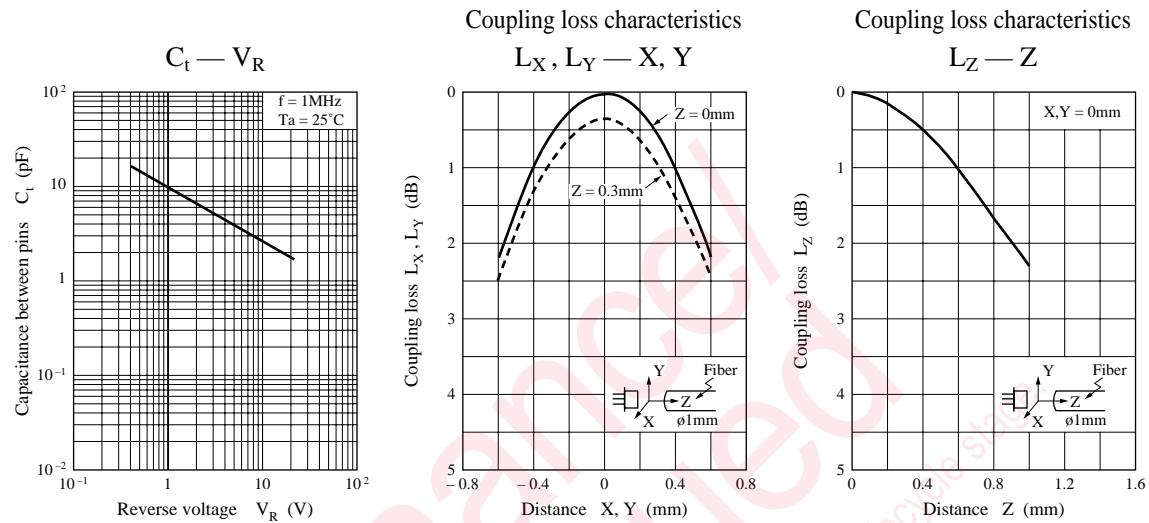
*2 Switching time measurement circuit (see figure below)



t_d: Delay time
t_r: Rise time (Time required for the collector photo current to increase from 10% to 90% of its final value)
t_f: Fall time (Time required for the collector photo current to decrease from 90% to 10% of its initial value)

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





Maintenance/Discontinued includes following four Product life cycle types

planed maintenance type

planed discontinued type

discontinued type

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