### **Panasonic**

# **PNZ334** (PN334)

### PIN Photodiode

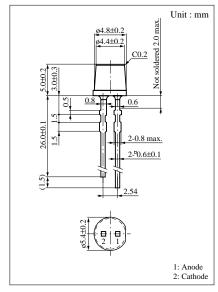
For optical fiber communication systems

#### Features

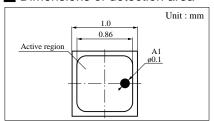
- Plastic type package (ø 5)
- High coupling capability suitable for plastic fiber
- High quantum efficiency
- High-speed response



Parameter	Symbol	Ratings	Unit	
Reverse voltage (DC)	$V_R$	30	V	
Power dissipation	$P_{D}$	100	mW	
Operating ambient temperature	Topr	-25 to +85	°C	
Storage temperature	T <sub>stg</sub>	-30 to +100	°C	



#### Dimensions of detection area

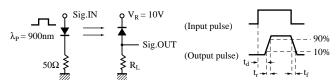


#### Electro-Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Dark current	$I_D$	$V_R = 10V$		0.1	10	nA
Photo current	$I_L$	$V_R = 10V, L = 1000 lx^{*1}$	5	7		μΑ
Peak sensitivity wavelength	$\lambda_{\mathrm{P}}$	$V_R = 10V$		850		nm
Response time	$t_r, t_f^{*2}$	$V_R = 10V, R_L = 50\Omega$		2		ns
Capacitance between pins	C <sub>t</sub>	$V_R = 0V, f = 1MHz$		6		pF
Acceptance half angle	θ	Measured from the optical axis to the half power point		70		deg.

 $<sup>^{*1}</sup>$  Measurements were made using a tungsten lamp (color temperature T = 2856K) as a light source.

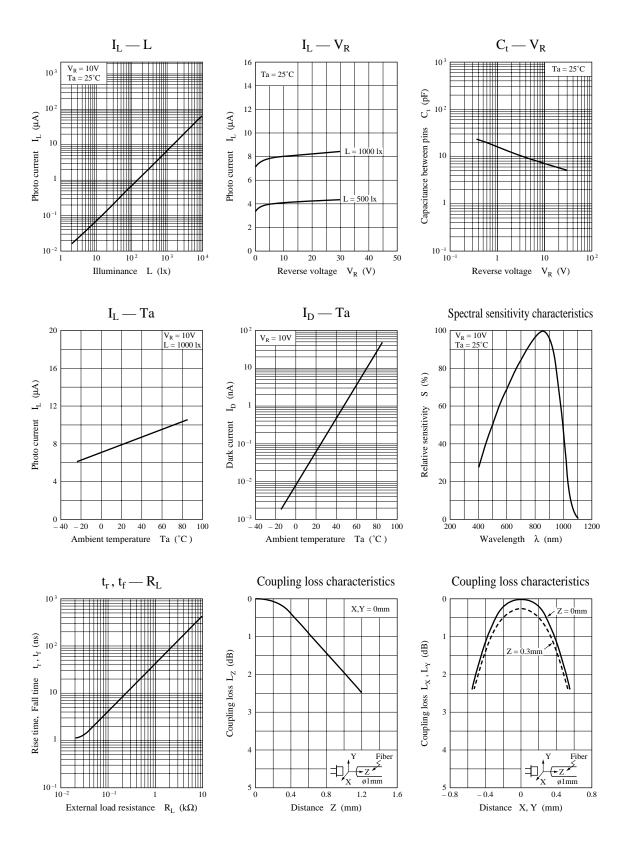
<sup>\*2</sup> Switching time measurement circuit



- t<sub>d</sub>: Delay time
- $t_{\rm r}$ : Rise time (Time required for the collector photo current to increase from 10% to 90% of its final value)
- $t_{\rm f}$ : 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.

PNZ334 PIN Photodiodes



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