PD480PI/PD480PI1

High Speed, Narrow Acceptance Photodiodes

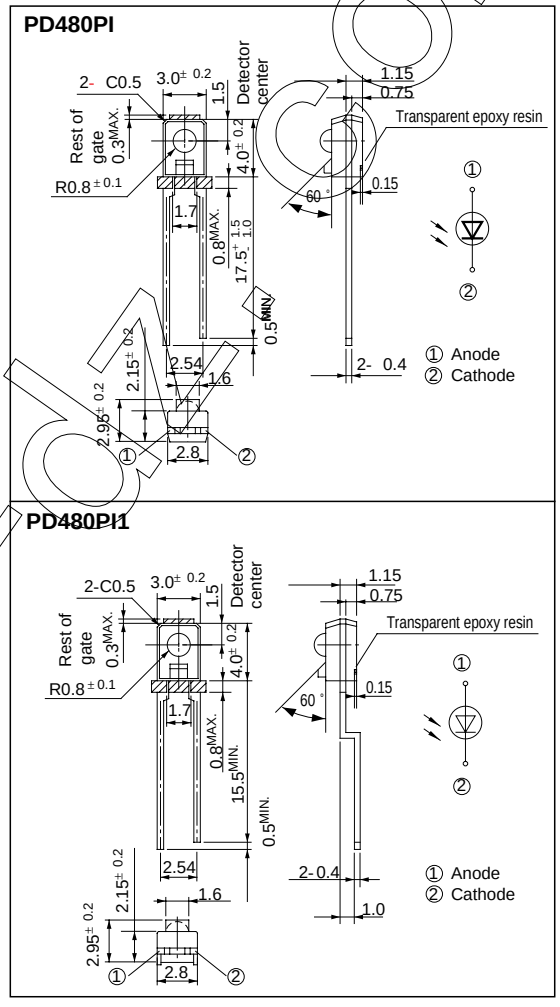
■ Features

1. High speed response (t_r, t_f: TYP. 100ns at R_L= 1kΩ)
2. Narrow acceptance (Δθ : TYP. ± 20°)
3. Compact
4. Lead forming type (**PD480PI1**)

■ Applications

1. Game machines
2. Optoelectronic switches
3. Infrared remote controllers for TVs, VCRs, audio equipment, air conditioners, etc.

■ Outline Dimensions (Unit: mm)



■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Power dissipation	P	75	mW
Operating temperature	T_{opr}	- 25 to + 85	°C
Storage temperature	T_{stg}	- 40 to + 85	°C
*1 Soldering temperature	T_{sol}	260	°C

*1 For 3 seconds at the position of 2.5mm from the surface of resin edge

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

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*2Short circuit current	I_{SC}	E_V= 100 lx	1.0	1.7	2.4	μA
Dark current	I_d	V_R= 10V, E_V= 0	-	-	10	nA
Terminal capacitance	C_t	V_R= 0, f= 1MHz	-	4.0	10	pF
Peak sensitivity wavelength	λ_p	-	-	950	-	nm
Response time	t_r , t_f	R_L= 1kΩ, V_R= 10V	-	100	250	ns
Half intensity angle	Δθ	-	-	± 20	-	°

*2 E_V: Illuminance by CIE standard light source A (tungsten lamp)

Fig. 1 Power Dissipation vs. Ambient Temperature

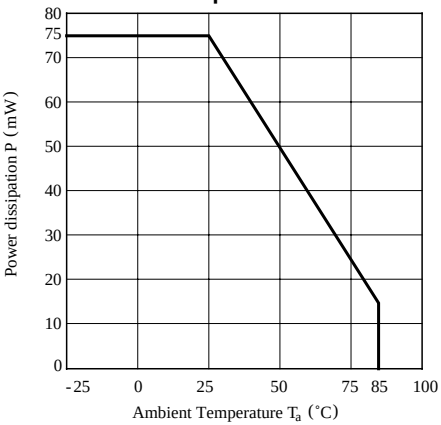


Fig. 2 Spectral Sensitivity

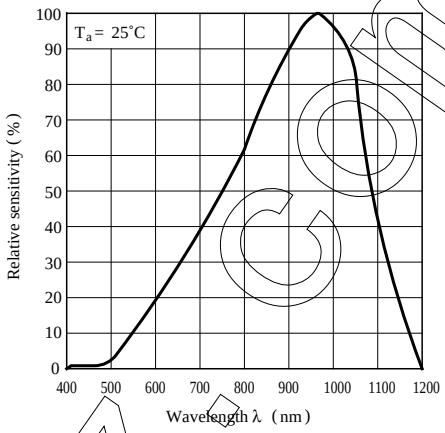


Fig. 3 Dark Current vs. Ambient Temperature

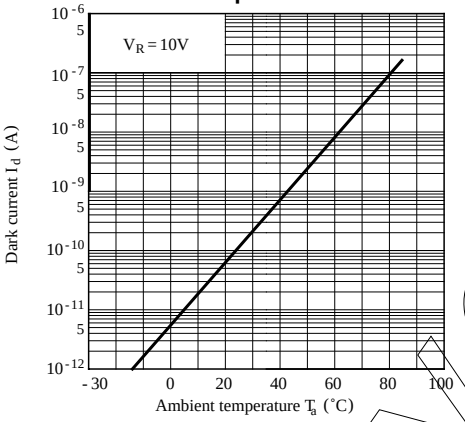


Fig. 4 Dark Current vs. Reverse Voltage

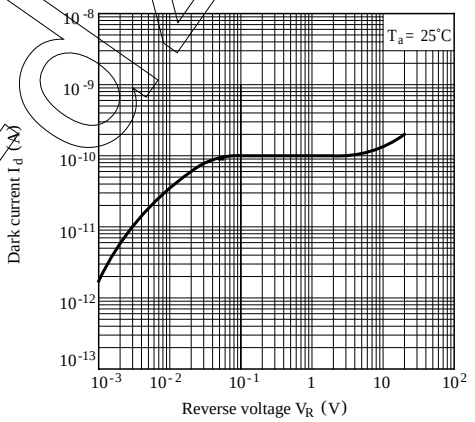


Fig. 5 Terminal Capacitance vs. Reverse Voltage

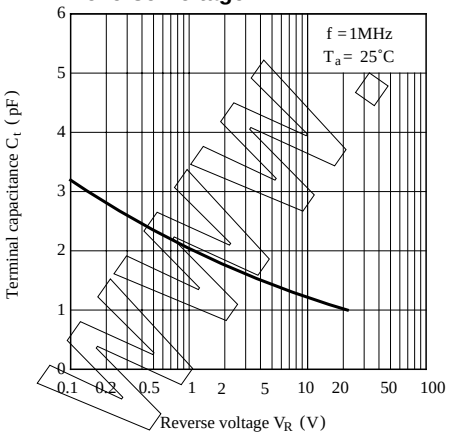


Fig. 6 Relative Output vs. Ambient Temperature

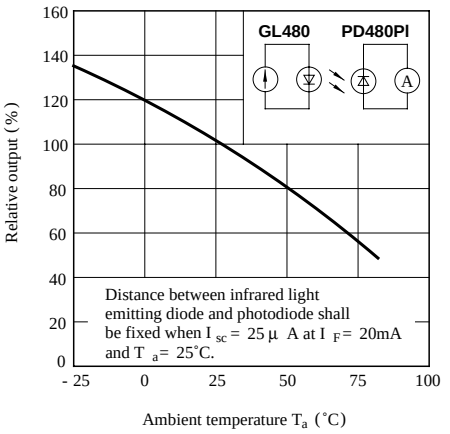


Fig. 7 Sensitivity Diagram (T_a = 25°C)

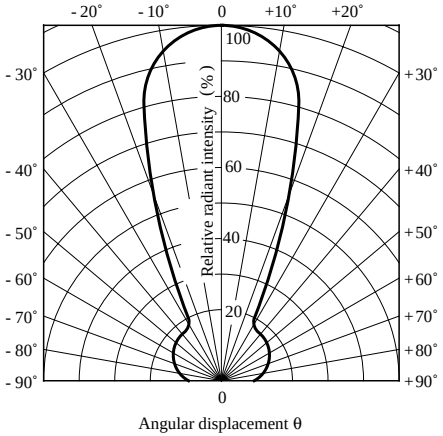


Fig. 8 Relative Output vs. Distance

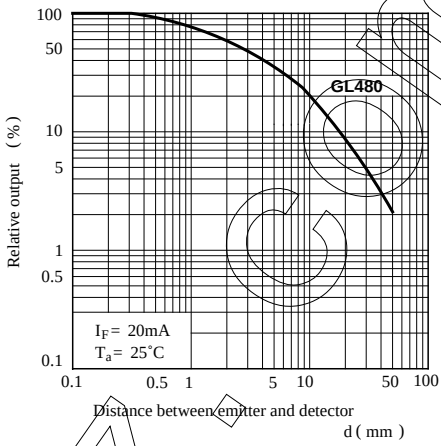
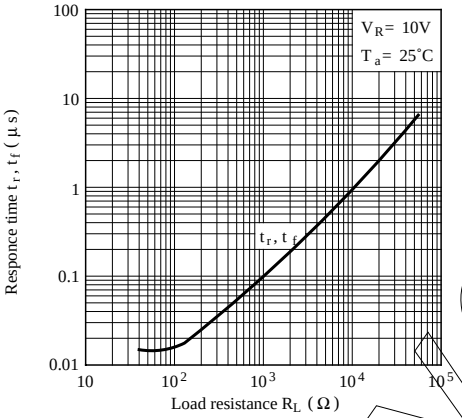
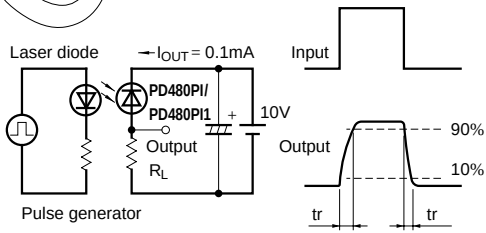


Fig. 9 Responce Time vs. Load Resistance



Test Circuit for Responce Time



● Please refer to the chapter "Precautions for Use."

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- Office automation equipment
- Telecommunication equipment [terminal]
- Test and measurement equipment
- Industrial control
- Audio visual equipment
- Consumer electronics

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- Gas leakage sensor breakers
- Alarm equipment
- Various safety devices, etc.

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