

PD412PI

High Sensitivity Photodiode with Condensing Lens

■ Features

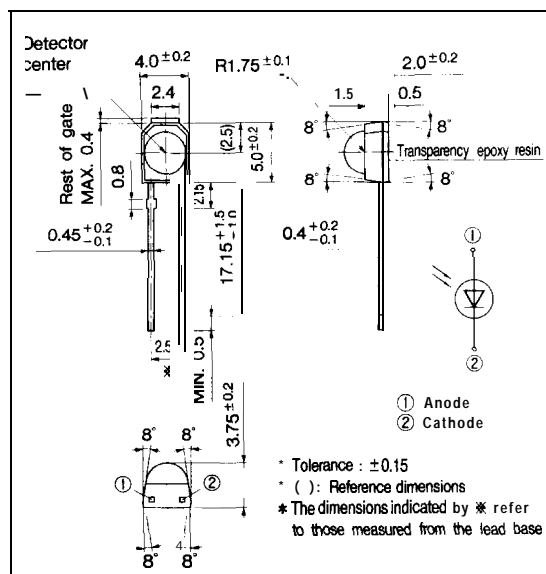
1. High sensitivity
(TYP. 0.5A/W at $\lambda = 780\text{nm}$)
2. High speed response
(t_r, t_f : TYP. 250ns at $R_L = 1\text{k}\Omega$)

■ Applications

1. Optoelectronic switches
2. Laser power monitors for MD

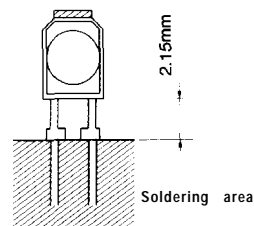
■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	32	V
Power dissipation	P	150	mW
Operating temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-40 to +100	°C
*1 Soldering temperature	T_{sol}	260	°C



*1 For MAX, 5 wends at the position of 2.15mm from the bottom face of resin package

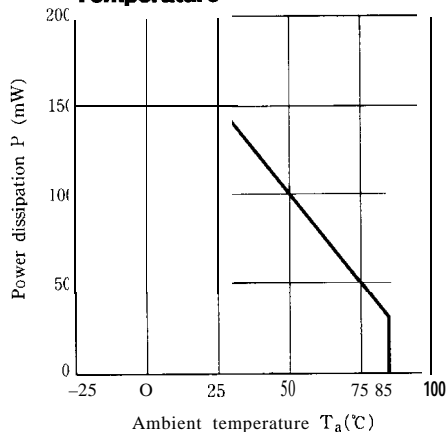
■ **Electro-optical Characteristics**

(Ta = 25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Short circuit current	Isc	*2E _v = 100lx	3.5	4.7	6.3	μA
Short circuit current temperature coefficient	β _T	*2E _v = 100lx	—	0.2		%/°C
Dark current	I _d	V _R = 10V, E _e = 0		0.5	10	nA
Dark current temperature coefficient	α _T	V _R = 10V, E _e = 0	—	3.5	5.0	times/10°C
Terminal capacitance	C _t	V _R = 3V, f = 1MHz	—	100	350	pF
Peak sensitivity wavelength	λ _p			800	—	nm
Peak spectral sensitivity	K	λ = 780nm	—	0.5	—	A/W
Response time	Rise time	t _r	—	250	—	ns
	Fall time	t _f	—	250	—	
Half intensity angle	Δθ		—	±45	—	

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

Fig.1 Power Dissipation vs. Ambient Temperature



● Please refer to the chapter "Precautions for Use." (Page 78 to 93)