

Spec. No. : ODT-W020-08(0)

Issued Date : 2006. 07. 11.

SPECIFICATION

MODEL NAME : Photo Diode

MODEL NO. : OD43P1

Prepared by :

Checked by :

Approved by :



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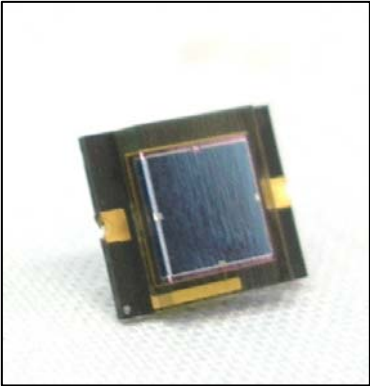
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■ Description

The OD43P1 is high-output, high-speed silicon photo-diode chip mounted on PCB, is compact.

■ Features

- High-speed response
- Wide angular response
- High reliability in demanding environments



■ Applications

- Optical-switch for factory automation
- Optical module

■ Absolute Maximum Ratings

(Ta= 25℃)

Parameter	Symbol	Ratings	Unit
Reverse Breakdown Voltage	BV _R	30	V
Junction Temperature	T _J	150	℃
Operating Temperature	T _{OPR}	-20 ~ 90	℃
Storage Temperature	T _{STG}	-30 ~ 100	℃

■ Electro-Optical Characteristics

(Ta=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Open Circuit Voltage	V _{OC}	Ev=1,000lux *1	0.3	0.32	—	V
Short Circuit Current	I _{SC}	Ev=1,000lux *1	75	90	—	μA
Reverse Breakdown Voltage	BV _R	I _R =10μA	40	—	—	V
Dark Current	I _D	V _R =10V	—	5	30	nA
Spectrum Sensitivity	λ	—	430	—	1100	nm
Peak Sensing Wavelength	λ _P	—		940	—	nm
Open Circuit Voltage	V _{OC}	Ev=1,000lux *1	0.3	0.32	—	V

*1 : Parallel light of 1,000lux illumination is applied by a tungsten lamp of 2856K

■ Typical electrical / Optical characteristic curves

(Ta=25 °C)

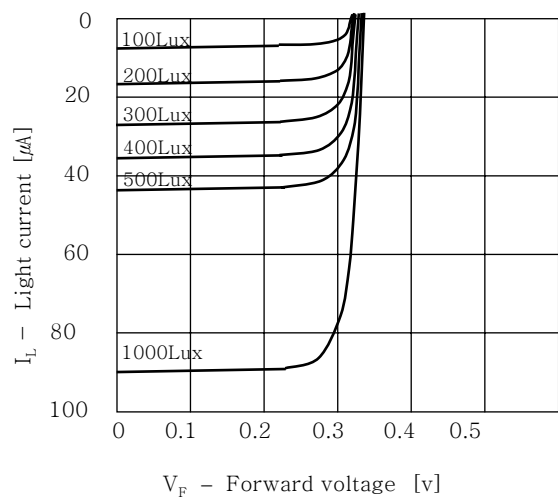


Fig.1 Light current vs. Forward voltage

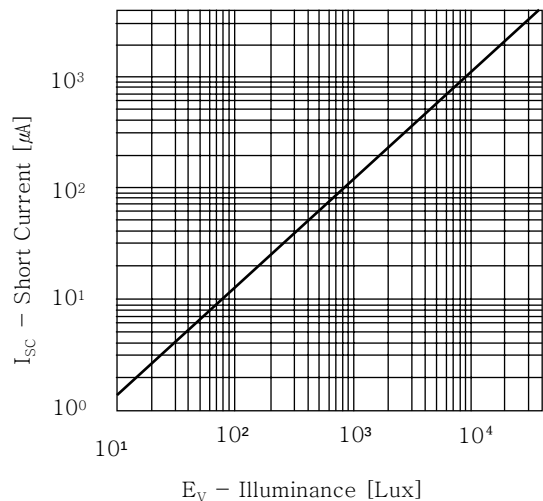


Fig.2 Short Current vs. Illuminance

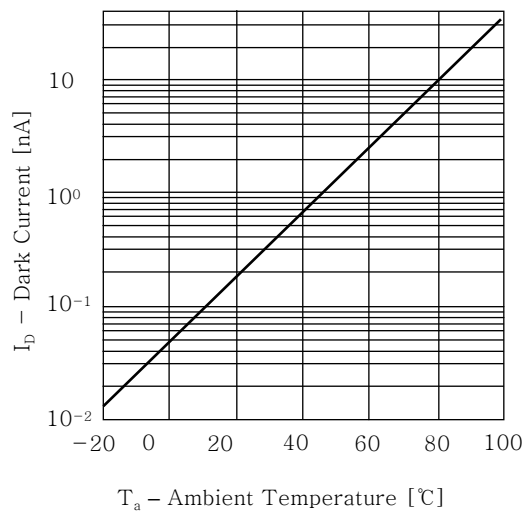


Fig.3 Dark current vs. Ambient temperature

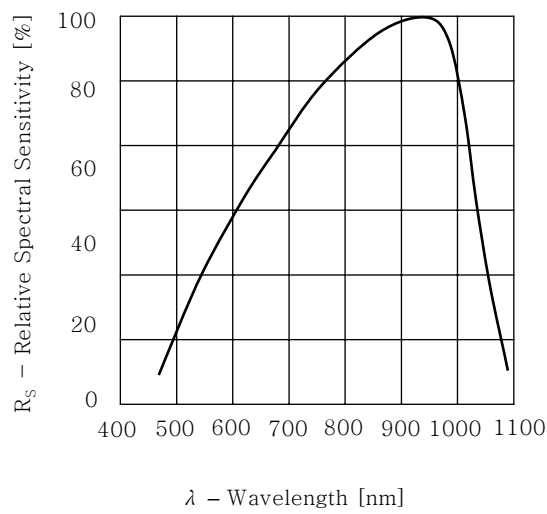
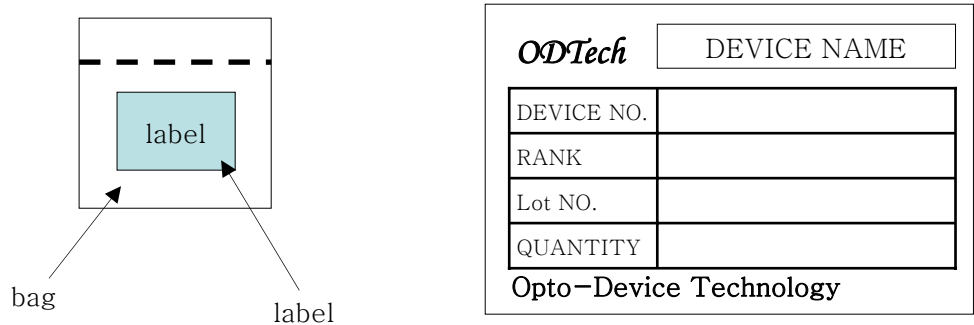


Fig.4 Relative spectral sensitivity vs. Wavelength

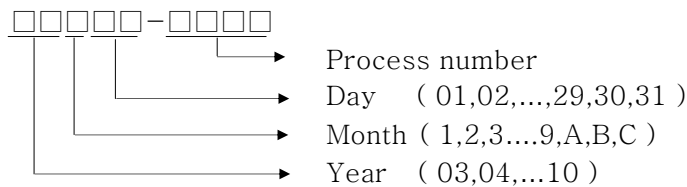
■ Packing method

- The optical detectors are packed in boxes after packing in bags. Please refer to figure.
- The label on the minimum packing unit shows ; Part number, Lot number, Ranking, Quantity
- In order to protect the optical detectors from mechanical shock, we pack them in boxes for transportation.
- The optical detectors may be damaged if the boxes are dropped or receive a strong impact against them so precautions must be taken to prevent any damage.
- The boxes are not water resistant and therefore must be kept away from water and moisture.



■ Lot number

- The first five digits number shows lot number.
- The lot number is composed of the following characters;



■ Cleaning

- When washing is required, isopropyl alcohol should be used.
- The influence of ultrasonic cleaning on the optical detectors differs depending on factors such as oscillator output and how the optical detectors are mounted. Before cleaning by ultrasonic wave, testing should be performed to ensure this will not cause damage to the optical detectors.

■ Outline Dimensions

(Unit : mm)

