

# ELMPD01B Large area silicon photo diode and module

<http://www.elm-tech.com>

## ■General description

ELMPD01B is a photo sensor detecting 450nm to 1050nm wave length. It is a module containing large area silicon photo diodes assembled on a PCB. This products are designed based on customer requirement with any PCB size, selected single or multiple photo diodes and any necessary chip size. Wave length sensitivity is enhanced by 1/4 anti reflection layer on a silicon chip. Center wave length is also selected.

## ■Features

1. COB type
2. Chip size : 20mmx6.5mm 2chips common cathode

## ■Application

- Laser beam optical axis adjustment
- Position detection
- Optical switch

## ■Maximum absolute ratings

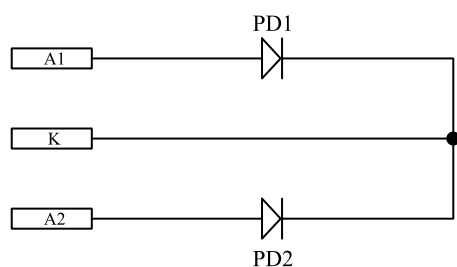
Parameter	Symbol	Limit	Unit
Maximum reverse voltage	V <sub>r</sub>	15	V
Maximum forward current	I <sub>f</sub>	100	mA
Operating temperature range	T <sub>op</sub>	-20 to +80	°C
Storage temperature range	T <sub>stg</sub>	-20 to +80	°C

## ■Electrical and optical characteristics

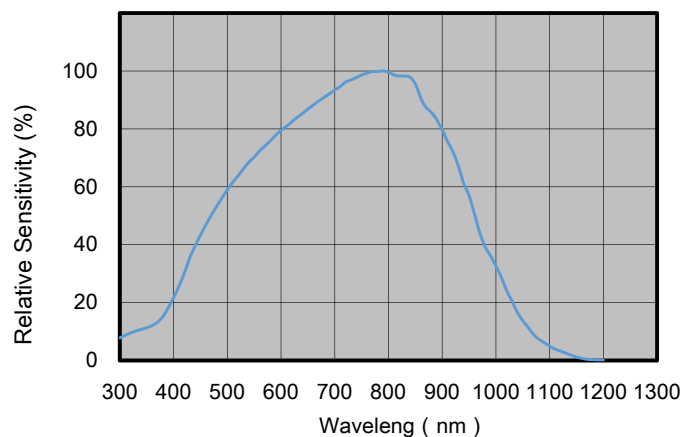
T<sub>a</sub>=25°C

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Open circuit voltage	V <sub>oc</sub>	2800K incandescent light bulb, 1000Lx	0.39	0.48	-	V
Short circuit current	I <sub>sc</sub>		1200	1500	-	μA
Dark current	I <sub>d</sub>	V <sub>r</sub> =10V	-	-	300	nA
Terminal capacitance	C <sub>t</sub>	V <sub>r</sub> =5V, f=100kHz	-	750	-	pF

## ■Circuit diagram



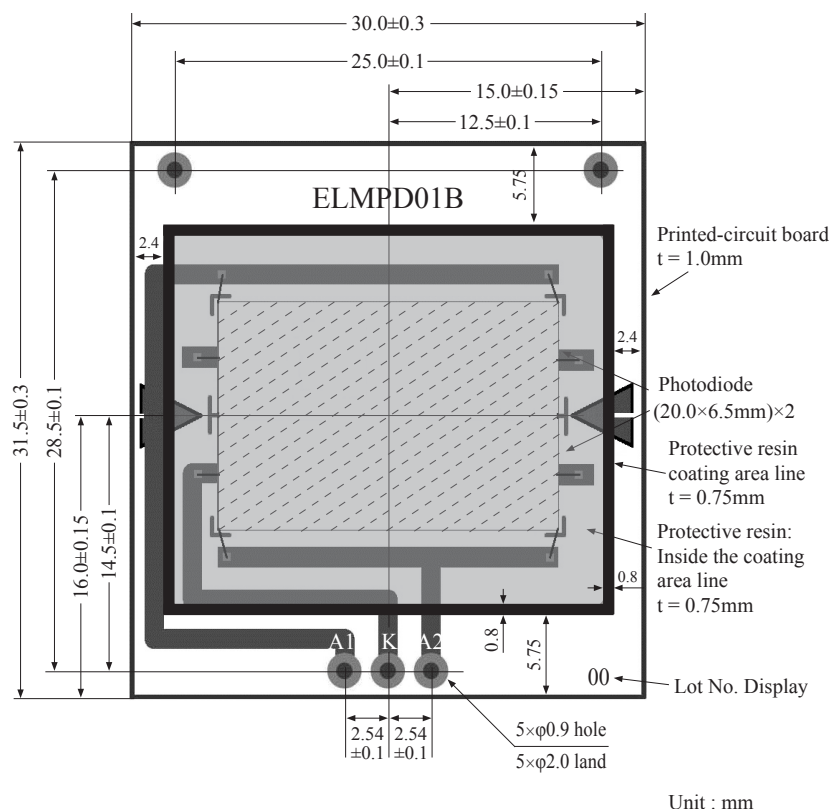
## ■Spectral sensitivity characteristics



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## ■Dimension



## ■Packing specifications

### • Inner packing

- (1) Product is placed in the antistatic tray (32pcs/1tray).
- (2) Above antistatic tray is collected for 6 trays, with an empty tray stacked on top, put in a bag, and vacuum-packed finally.
- (3) In addition, multiple vacuum-packs mentioned above can be placed in one cardboard box, and up to 1,000 ELMPD01B can be packed (5 vacuum-packs of 192pcs ELMPD01B and 1 vacuum-pack of 40pcs of ELMPD01B make 1,000 pcs of ELMPD01B).
- (4) Cushioning material is placed so that the product will not be damaged by vibration or impact during transportation.

### • Outer packing

Delivered in a cardboard box. Appropriate box size is used according to the delivery quantity.

### • Label

A label indicating the contents of the packing is pasted to the top empty anti-static tray and the outer surface of the cardboard box.

Please refer to the example below.

