



EVERLIGHT ELECTRONICS CO., LTD.

DEVICE NUMBER : DPD-020-062

REV : 1.0

ECN :

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3mm Silicon PIN Photodiode

MODEL NO : PD204-6B/C2

■ Features :

- Fast response times
- High photo sensitivity
- Small junction capacitance

■ Description :

PD204-6B/C2 is a high speed and high sensitive PIN photodiode in a standard 3 Φ plastic package. The device is spectrally matched to infrared emitting diode.

■ Applications :

- High speed photo detector
- Copier
- Camera
- Infrared remote controller for TVs VCR, audio equipment, air conditioner, etc.

PART NO.	CHIP	LENS COLOR
	MATERIAL	
PD	Silicon	Black



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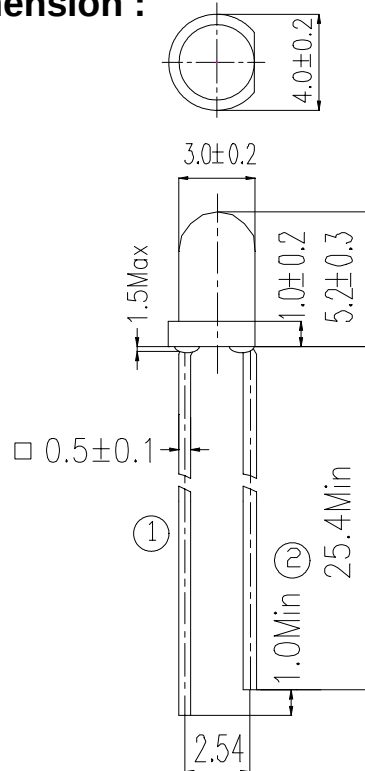
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Package Dimension :



① Anode

② Cathode

Notes :

1. All dimensions are in millimeter.
2. Lead spacing is measured where the lead emerge from the package.
3. Protruded resin under flange 1.5 mm Max.
4. Lens color : Black.
5. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
6. These specification sheets include materials protected under copyright of EVERLIGHT corporation . Please don't reproduce or cause anyone to reproduce them without EVERLIGHT's consent.
7. When using this product , please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.



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■ Absolute Maximum Ratings at T_A = 25°C

Parameter	Symbol	Rating	Unit	Notice
Reversr Voltage	V _R	32	V	
Operating Temperature	Topr	-25 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	°C	
Lead Soldering Temperature	Tsol	260	°C	4mm from mold body less than 5 seconds
Power Dissipation at(or below) 25°C Free Air Temperature	P _C	150	mW	

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Rang of Spectral Bandwidth	$\lambda_{0.5}$	----	700-1200	----	nm	-----
Wavelength of Peak Sensitivity	λ_p	----	980	----	nm	----
Open-Circuit Voltage	V _{OC}	----	0.42	----	V	E _e =5mW/cm ² λ_p =940nm
Short-Circuit Current	I _{SC}	----	15	----	μA	
Reverse Light Current	I _L	----	15	----	μA	E _e =5mW/cm ² λ_p =940nm V _R =5V
Dark Current	I _D	----	----	10	nA	E _e =0mW/cm ² V _R =10V
Reverse Breakdown Voltage	B _{VR}	32	170	----	V	E _e =0mW/cm ² I _R =100 μA
Total Capacitance	C _t	----	5	----	pF	E _e =0mW/cm ² f=1MHZ V _R =5V
Turn-on/Turn-off Time	t _{on} /t _{off}	----	6/6	----	nS	R _L =1000 Ω V _R =10V



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Typical Electrical/Optical/Characteristics Curves :

Fig. 1 Power Dissipation vs.
Ambient Temperature

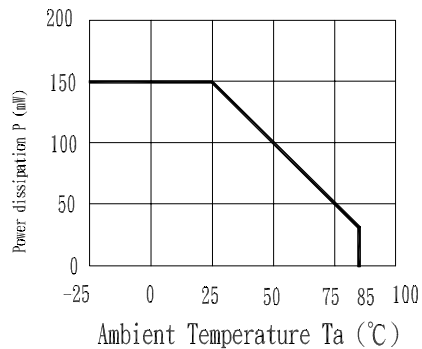


Fig. 2 Spectral Sensitivity

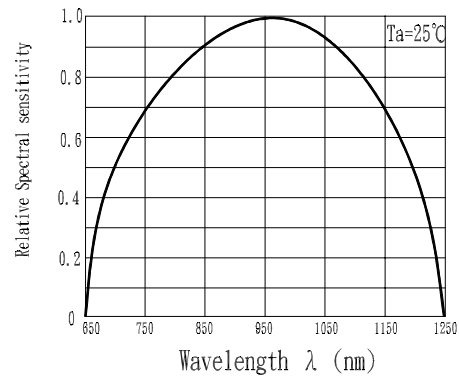


Fig. 3 Dark Current vs.
Ambient Temperature

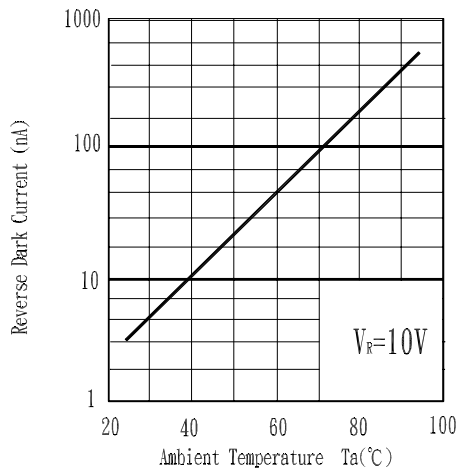


Fig. 4 Reverse Light Current vs. Ee

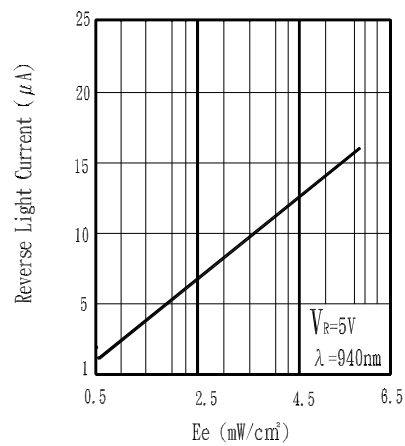


Fig. 5 Terminal Capacitance vs.
Reverse Voltage

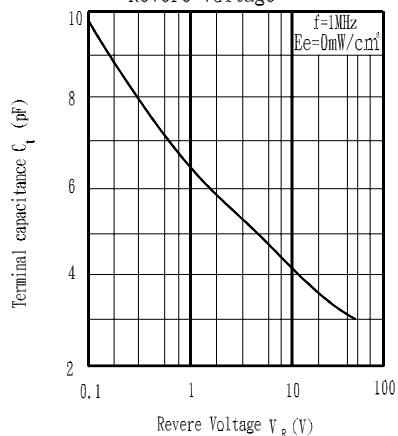
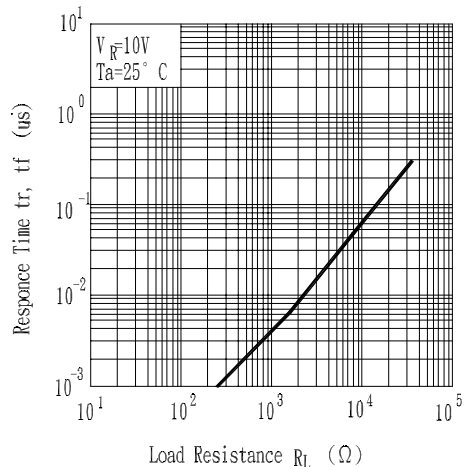


Fig. 6 Response Time vs.
Load Resistance





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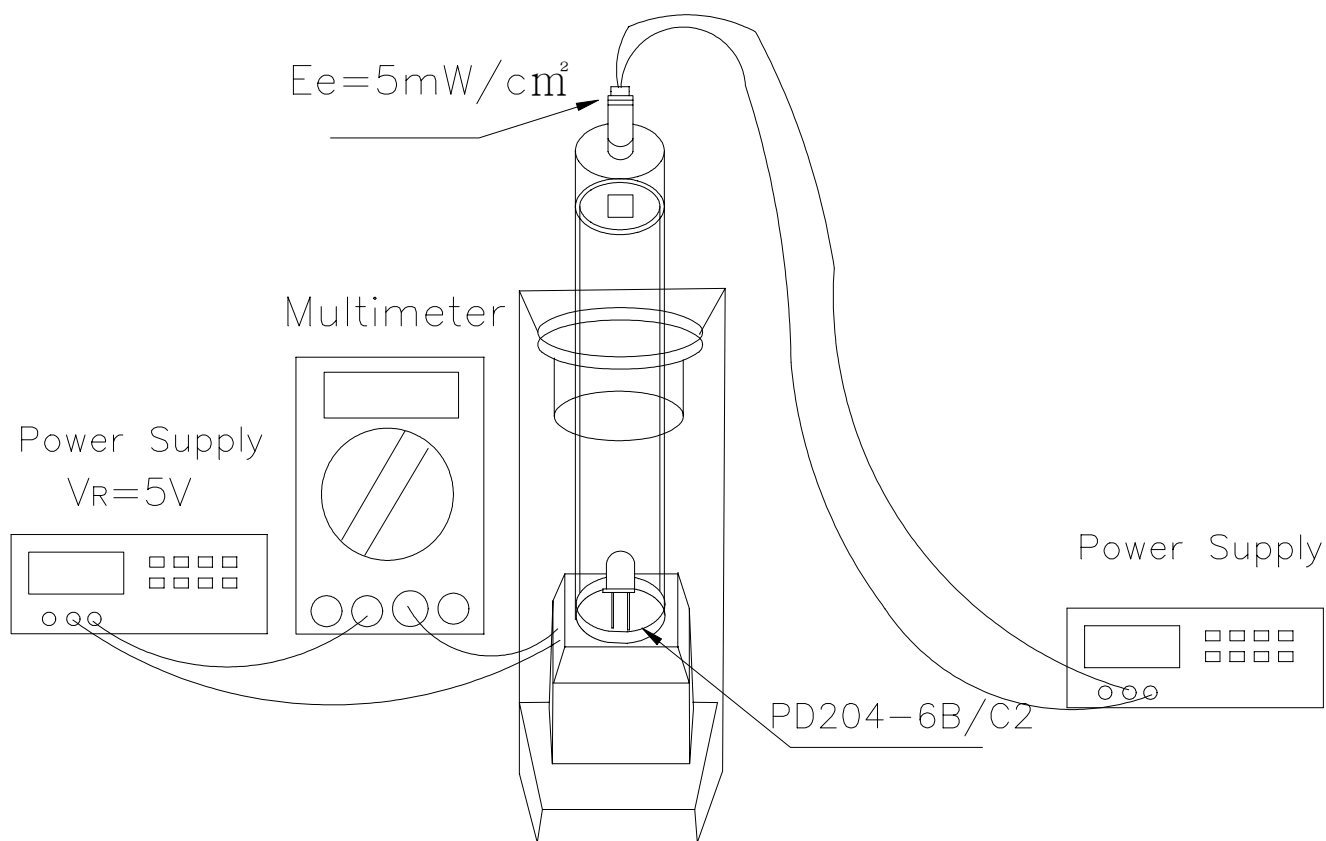
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■ Test Method For Reverse Light Current

Condition: $E_e=5\text{mW}/\text{cm}^2$, $V_R=5\text{V}$

Test Item: Reverse Light Current (Unit: μA)





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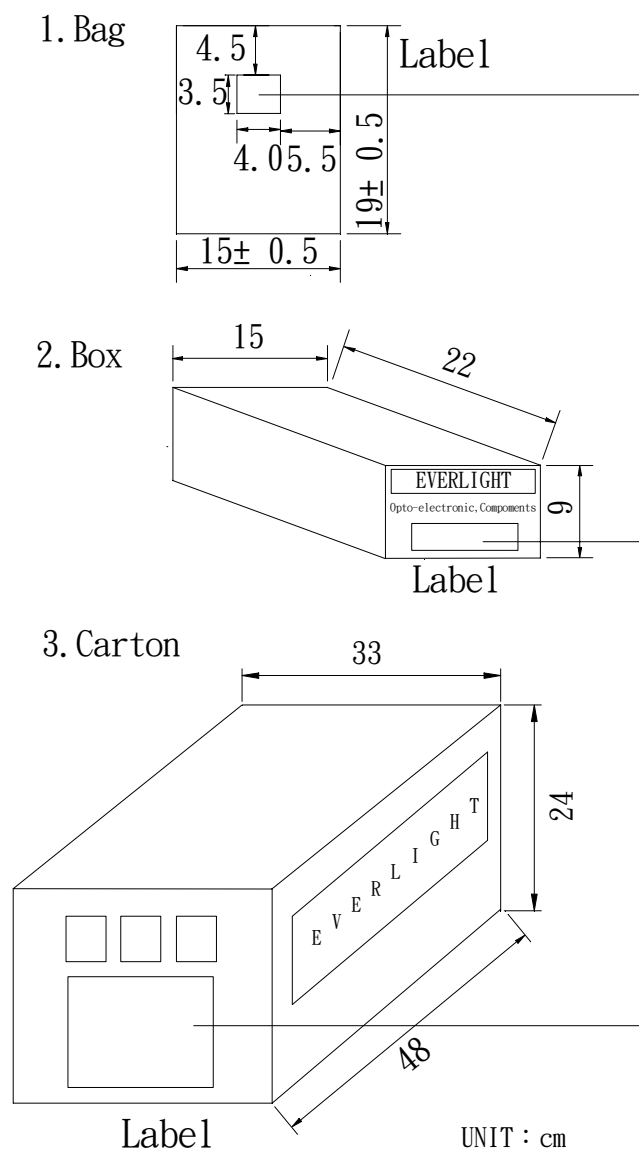
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■ Packing Specifications



EVERLIGHT

CPN:

P/N:

PD204-6B/C2

QTY:

LOT NO:

CAT:

HUE:

REF:

MADE IN TAIWAN

CPN : Customer's Production Number

P/N : Production Number

QTY : Packing Quantity

CAT : Ranks

HUE : Peak Wavelength

REF : Reference

LOT NO : Lot Number

MADE IN TAIWAN : Production place

■ Packing Quantity Specification

1. 1000 Pcs/1Bag , 4 Bags/1Box

2. 10 Boxes/1Carton