

3mm Photodiode PD204-6B

Features

- Fast response time
- High photo sensitivity
- Small junction capacitance
- Pb free
- This product itself will remain within RoHS compliant version.
- Compliance with EU REACH



Description

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

Applications

- Automatic door sensor
- Copier
- Game machine

Device Selection Guide

Chip Materials	Lens Color
Silicon	Black

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	32	V
Operating Temperature	T_{opr}	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Soldering Temperature	T_{sol}	260	°C
Power Dissipation at (or below) 25°C Free Air Temperature	P_c	150	mW

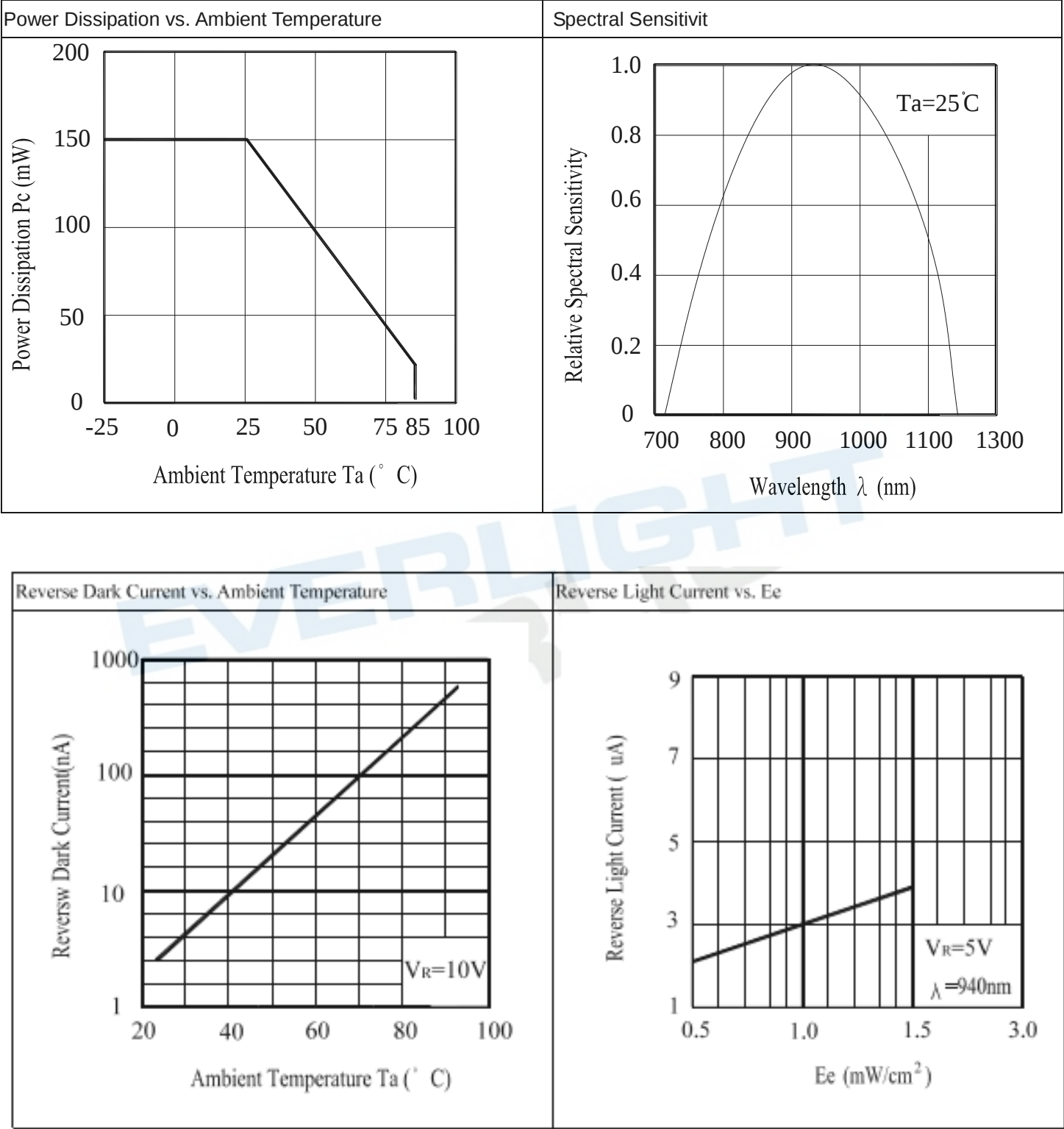
Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Range Of Spectral Bandwidth	$\lambda_{0.5}$	840	-----	1100	nm	-----
Wavelength Of Peak Sensitivity	λ_p	-----	940	-----	nm	-----
Open-Circuit Voltage	V_{OC}	-----	0.42	-----	V	Ee=1mW/cm ² λ_p =940nm
Short- Circuit Current	I_{SC}	-----	3.0	-----	μA	Ee=1mW/cm ² λ_p =940nm
Reverse Light Current	I_L	1.0	3.0	----	μA	Ee=1mW/cm ² λ_p =940nm V_R =5V
Reverse Dark Current	I_D	----	----	10	nA	Ee=0mW/cm ² V_R =10V
Reverse Breakdown Voltage	V_{BR}	32	170	----	μA	Ee=0mW/cm ² I_R =100μA
Total Capacitance	C_t	-----	5	-----	pF	Ee=0mW/cm ² V_R =5V f=1MHz
Rise Time/ Fall Time	t_r / t_f	-----	6	-----	ns	V_R =10V R_L =100Ω

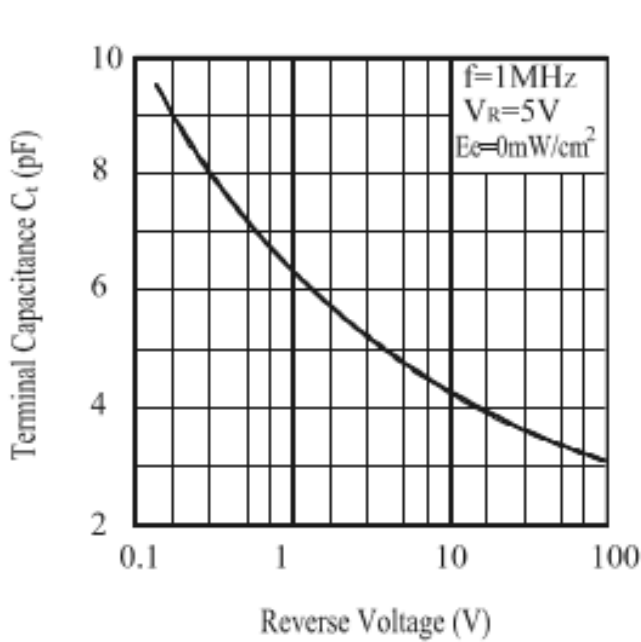
Note:

Tolerance of Luminous Intensity: ±10%
Tolerance of Dominant Wavelength: ±1nm
Tolerance of Forward Voltage: ±0.1V

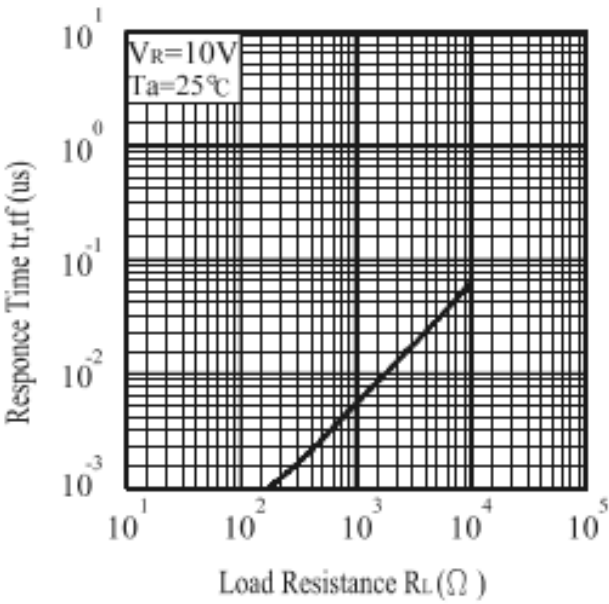
Typical Electro-Optical Characteristics Curves



Terminal Capacitance vs. Reverse Voltage

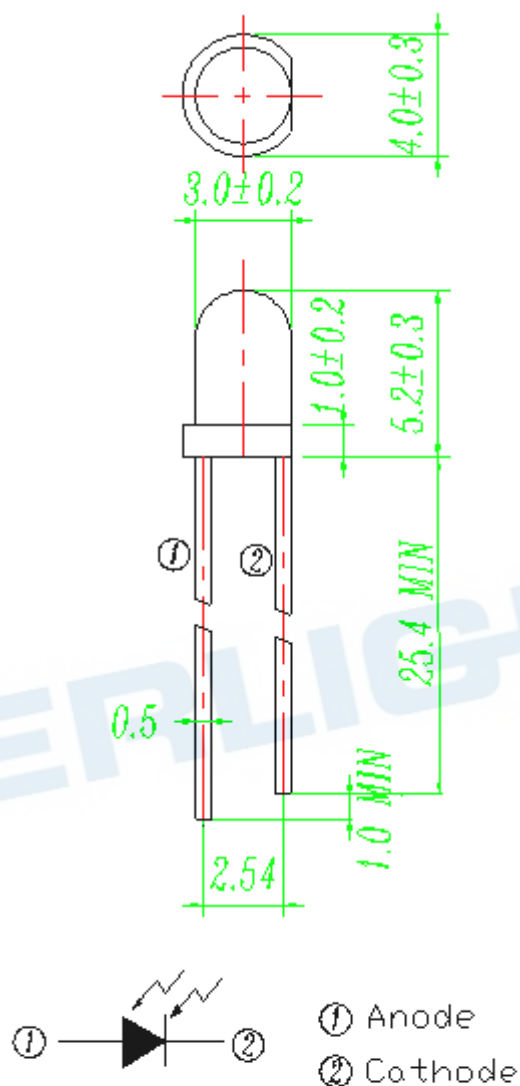


Response Time vs. Load Resistance



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Package Dimension



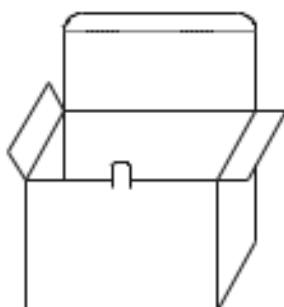
Note: Tolerances unless dimensions $\pm 0.25\text{mm}$

Packing Quantity Specification

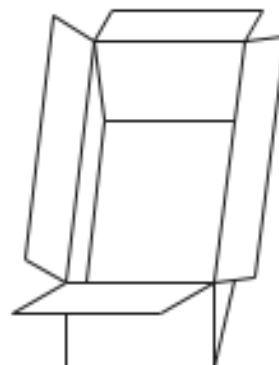
■ Anti-electrostatic bag



■ Inner Carton



■ Outside Carton



1. 200~1000PCS/1Bag,4Bags/1 Inner Carton
2. 1 Inner Cartons /1 Outside Carton

Label Form Specification

RoHS	Pb	EVERLIGHT	5
CPN: XXXXXXXXXXXXXXXX			
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
P/N: XXXXXXXXXXXX			
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
LOT NO: Y150716XXX-XXXXXXXXXX-XXXXXX			
XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXX			
QTY: 0123456789		HUE: XXXXXXXXXX	
CAT: XXXXXXXXXX		REF: XXXXXXXXXX	
REFERENCE: BTPYMMDDXXXXX			
MADE IN XXXXXX			



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

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3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the 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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