

DATASHEET

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℃)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	32	V
Operating Temperature	T _{opr}	-40 ~ +85	$^{\circ}$ C
Storage Temperature	T _{stg}	-40 ~ +100	$^{\circ}\! \mathbb{C}$
Soldering Temperature	T _{sol}	260	$^{\circ}\!\mathbb{C}$
Power Dissipation at (or below)	P _c	150	mW
25°C Free Air Temperature			



Electro-Optical Characteristics (Ta=25°C)

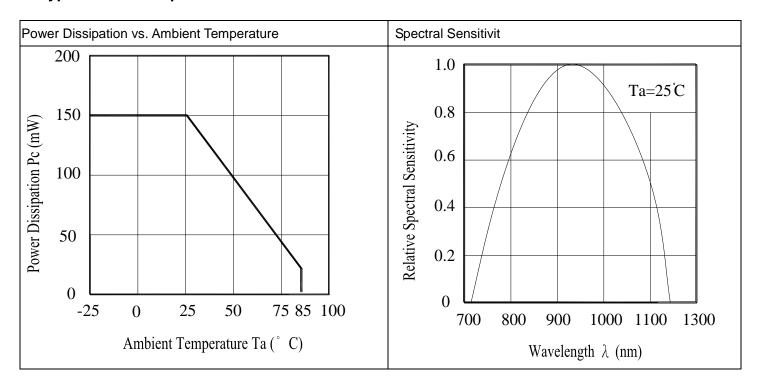
Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Range Of Spectral Bandwidth	λ _{0.5}	840		1100	nm	
Wavelength Of Peak Sensitivity	λ_{P}		940		nm	
Open-Circuit Voltage	V _{OC}		0.42		V	Ee=1mW/cm ² λp=940nm
Short- Circuit Current	I _{sc}		3.0		μΑ	Ee=1mW/cm ² λp=940nm
Reverse Light Current	IL	1.0	3.0		μΑ	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		μΑ	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

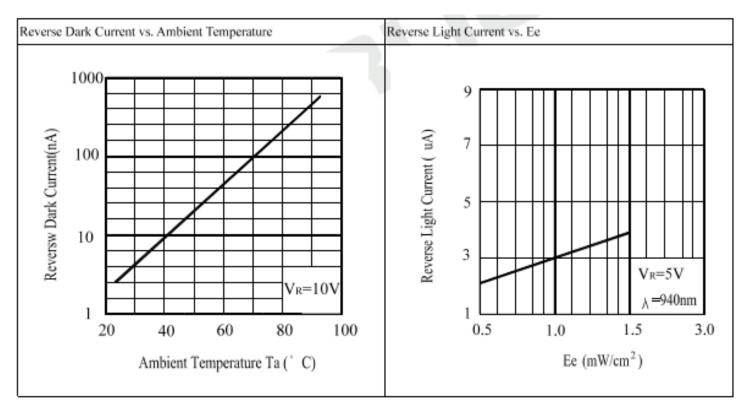
Note:

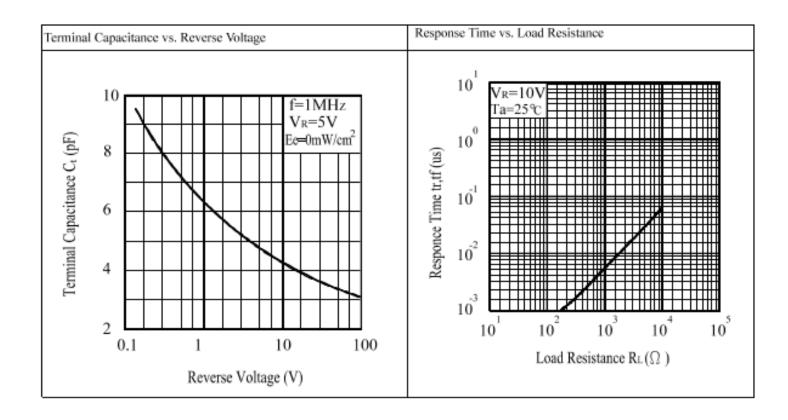
Tolerance of Luminous Intensity: ±10% Tolerance of Dominant Wavelength: ±1nm Tolerance of Forward Voltage: ±0.1V



Typical Electro-Optical Characteristics Curves

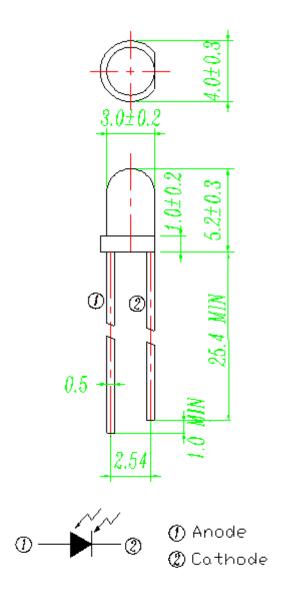








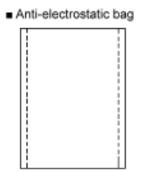
Package Dimension



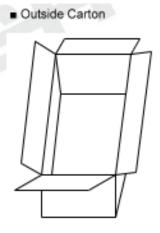
Note: Tolerances unless dimensions ±0.25mm



Packing Quantity Specification

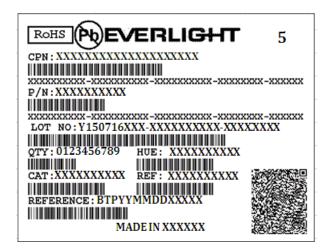






- 1. 200~1000PCS/1Bag,4Bags/1 Inner Carton
- 2. 1 Inner Cartons /1 Outside Carton

Label Form Specification



- 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



DISCLAIMER

- 1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
- 2. The product meets EVERLIGHT published specification for a period of twelve (12) months from date of shipment.
- 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.
- 5. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
- 6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.