

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

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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	$Ee=1\text{mW/cm}^2$ $\lambda p=940\text{nm}$
Short- Circuit Current	I_{SC}	-----	3.0	-----	μA	$Ee=1\text{mW/cm}^2$ $\lambda p=940\text{nm}$
Reverse Light Current	I_L	1.0	3.0	-----	μA	$Ee=1\text{mW/cm}^2$ $\lambda p=940\text{nm}$ $V_R=5\text{V}$
Reverse Dark Current	I_D	-----	-----	10	nA	$Ee=0\text{mW/cm}^2$ $V_R=10\text{V}$
Reverse Breakdown Voltage	V_{BR}	32	170	-----	μA	$Ee=0\text{mW/cm}^2$ $I_R=100\mu\text{A}$
Total Capacitance	C_t	-----	5	-----	pF	$Ee=0\text{mW/cm}^2$ $V_R=5\text{V}$ $f=1\text{MHz}$
Rise Time/ Fall Time	t_r/ t_f	-----	6	-----	ns	$V_R=10\text{V}$ $R_L=100\Omega$

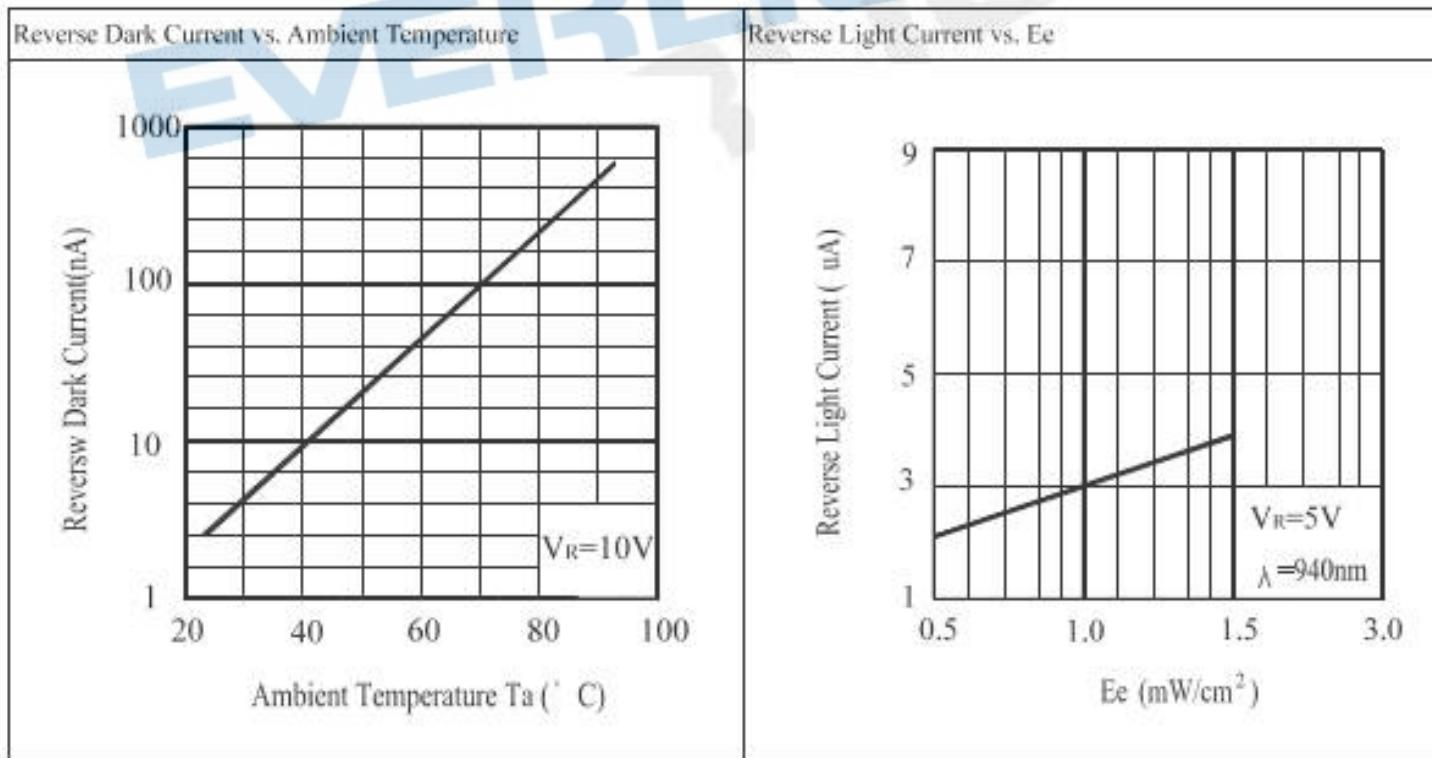
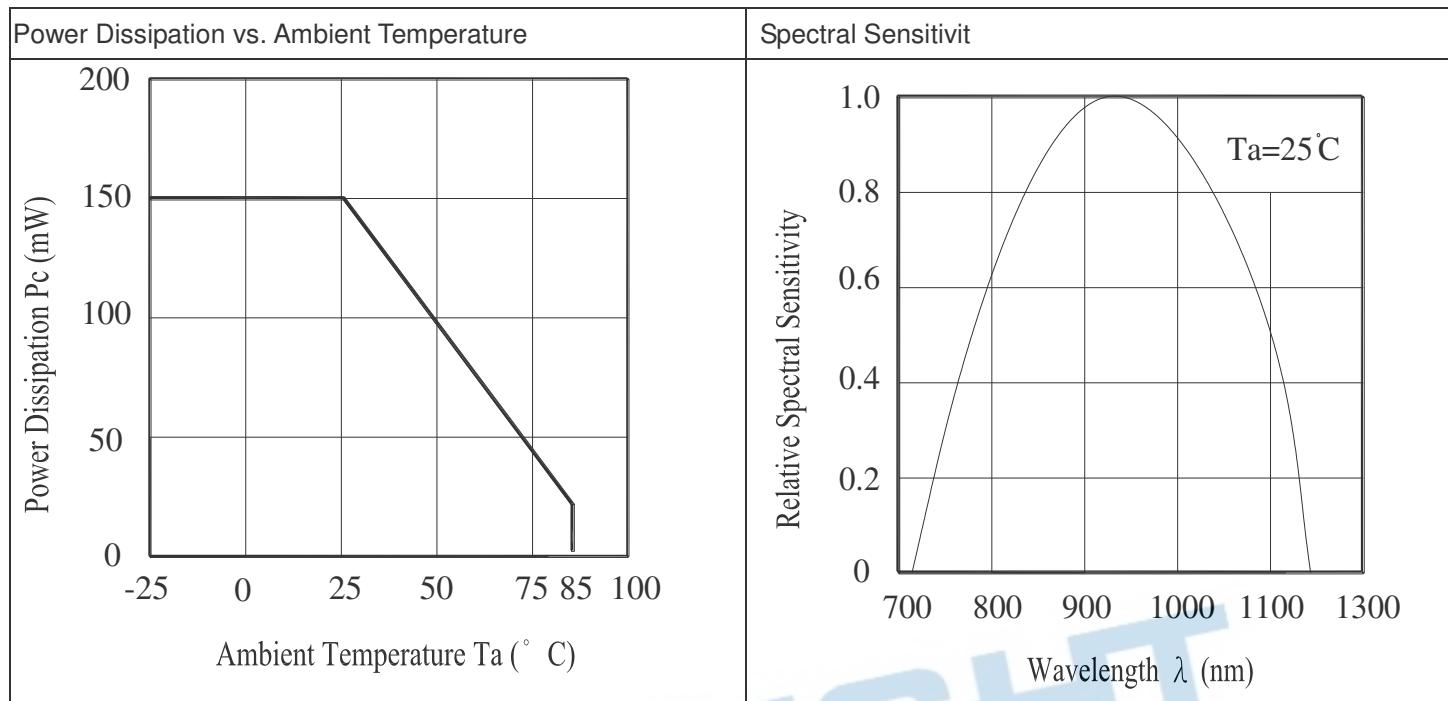
Note:

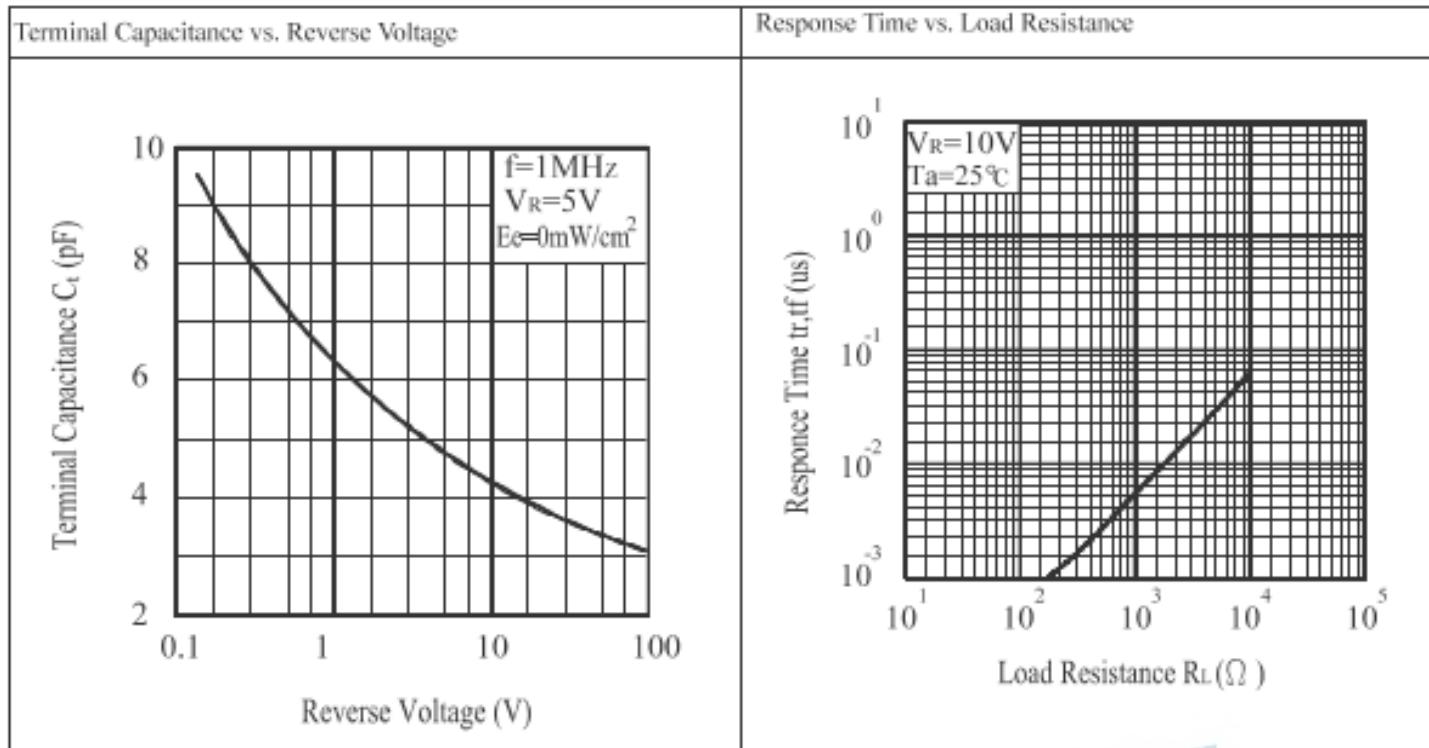
Tolerance of Luminous Intensity: $\pm 10\%$

Tolerance of Dominant Wavelength: $\pm 1\text{nm}$

Tolerance of Forward Voltage: $\pm 0.1\text{V}$

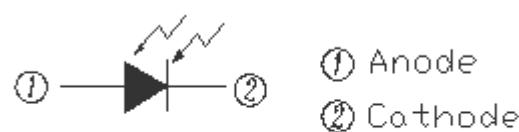
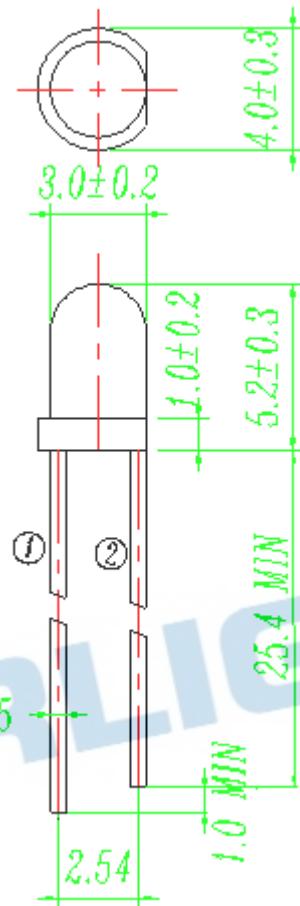
Typical Electro-Optical Characteristics Curves





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Package Dimension



① Anode
② Cathode

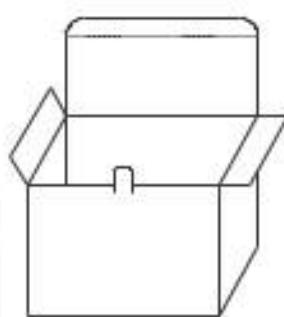
Note: Tolerances unless dimensions ± 0.25 mm

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



- 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.
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