

3mm Photodiode PD204-6C

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

PD204-6C 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	Water clear

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

Notes: *1: Soldering time \leq 5 seconds.

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Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Range Of Spectral Bandwidth	$\lambda_{0.5}$	400	-----	1100	nm	-----
Wavelength Of Peak Sensitivity	λ_P	-----	940	-----	nm	-----
Open-Circuit Voltage	V_{OC}	-----	0.42	-----	V	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$
Short- Circuit Current	I_{SC}	-----	3.5	-----	μA	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$
Reverse Light Current	I_L	-----	3.5	----	μA	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$ $V_R=5\text{V}$
Reverse Dark Current	I_D	----	----	10	nA	$E_e=0\text{mW/cm}^2$ $V_R=10\text{V}$
Reverse Breakdown Voltage	V_{BR}	32	170	----	V	$E_e=0\text{mW/cm}^2$ $I_R=100\mu\text{A}$
Total Capacitance	C_t	-----	5	-----	pF	$E_e=0\text{mW/cm}^2$ $V_R=5\text{V}$ $f=1\text{MHz}$
Rise Time/ Fall Time	t_r / t_f	-----	6/6	-----	ns	$V_R=10\text{V}$ $R_L=100\Omega$

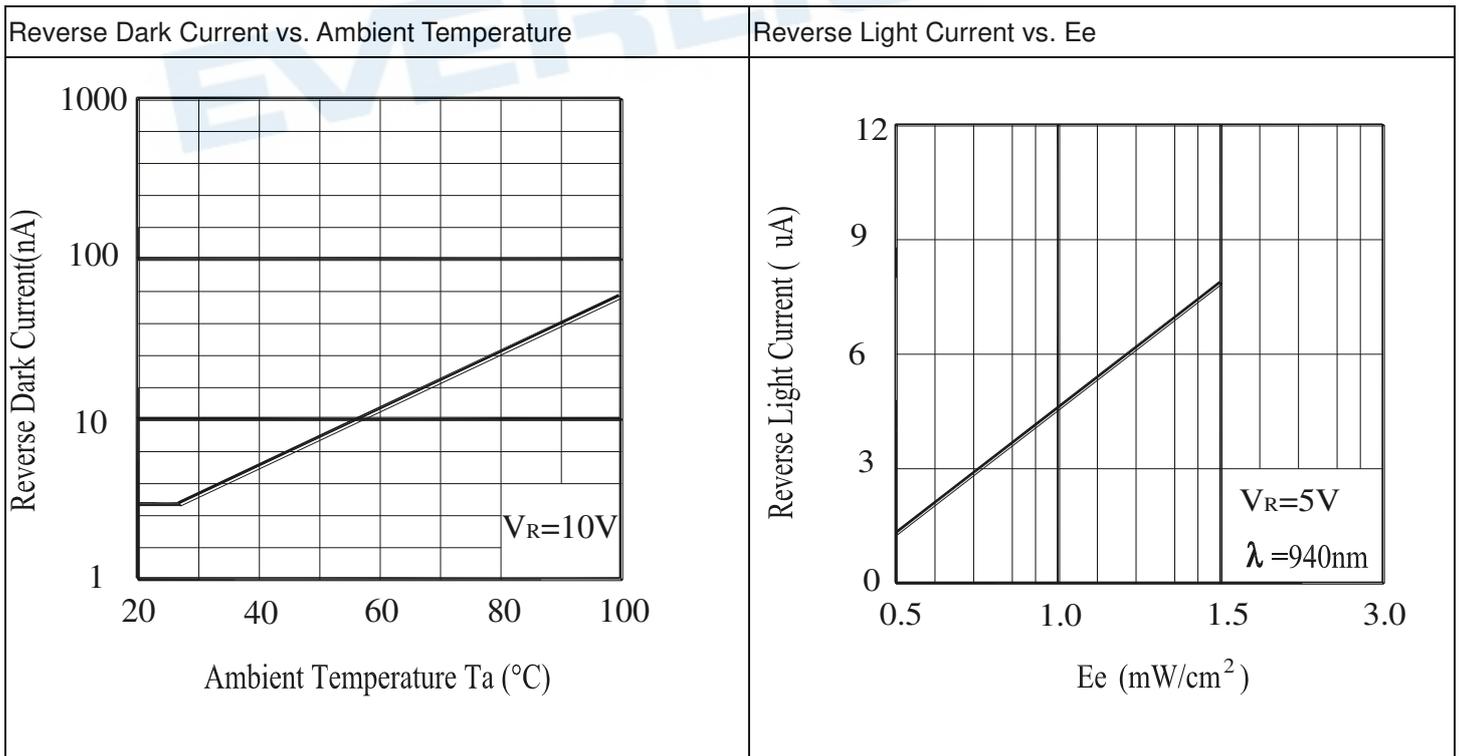
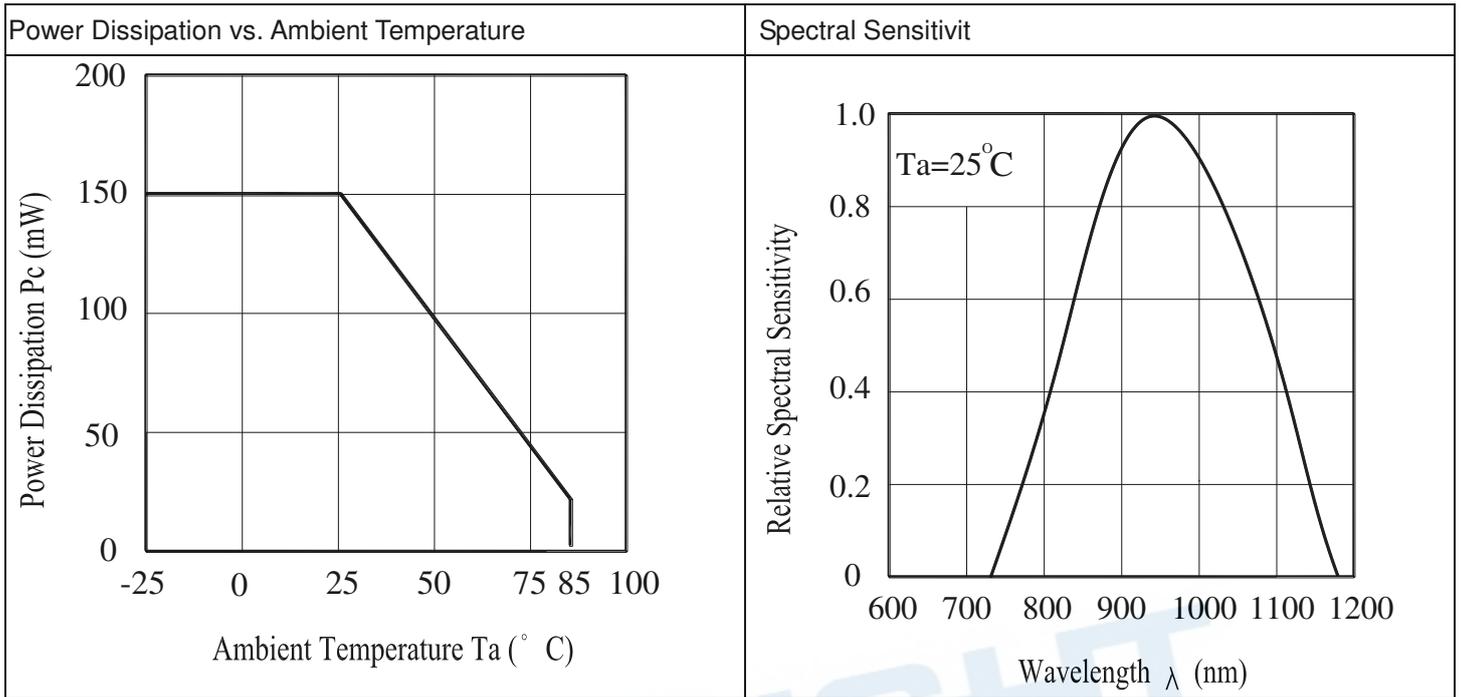
Note:

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

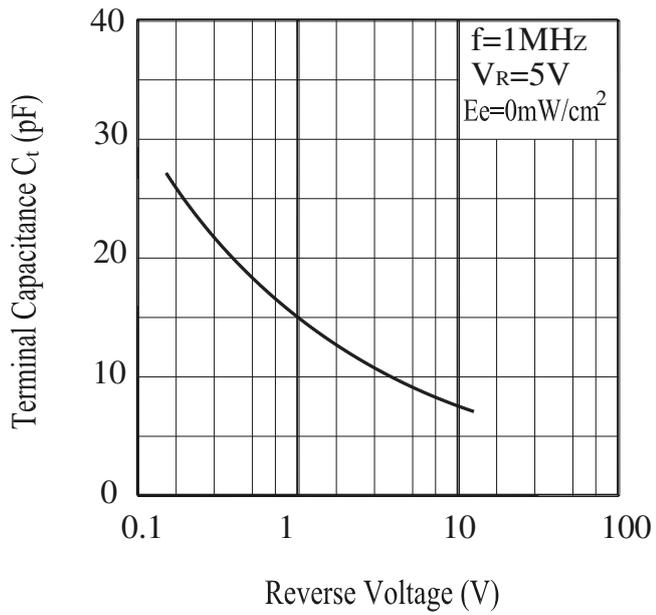
Tolerance of Dominant Wavelength: $\pm 1\text{nm}$

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

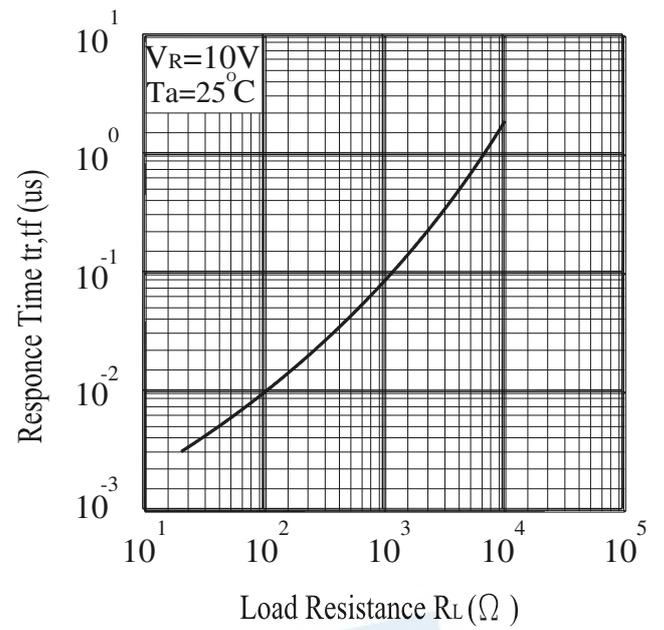
Typical Electro-Optical Characteristics Curves



Terminal Capacitance vs. Reverse Voltage

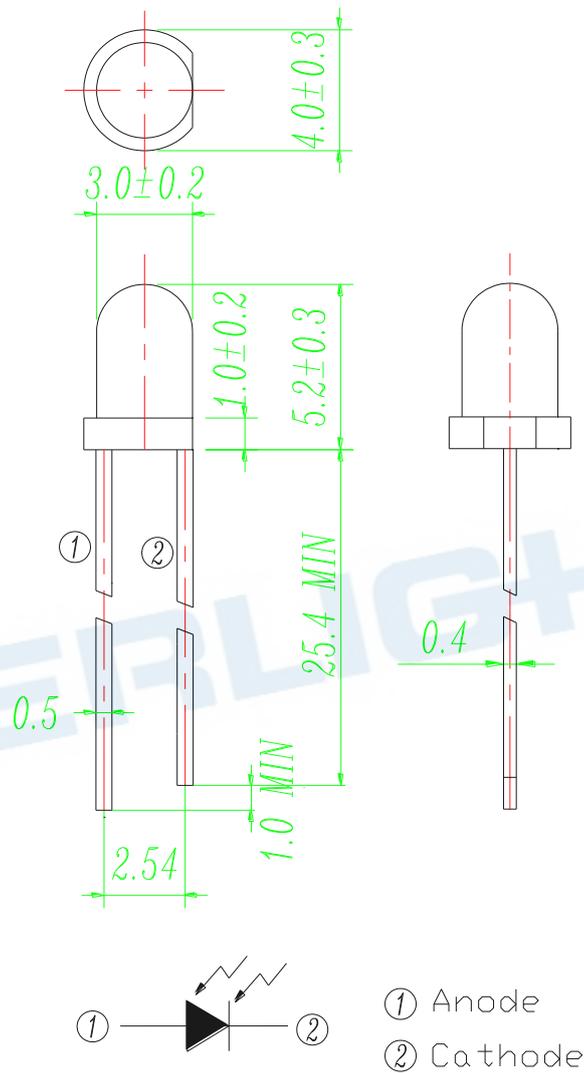


Response Time vs. Load Resistance



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Package Dimension

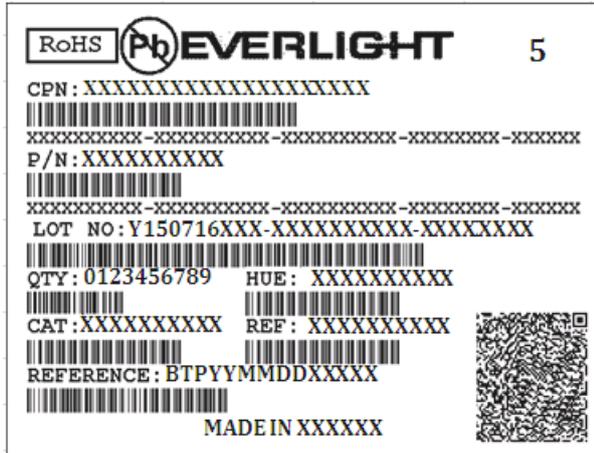


Note: Tolerances unless dimensions $\pm 0.25\text{mm}$

Packing Quantity Specification

1. 200~1000PCS/1Bag,4Bags/1Box
2. 10Boxes/1Carton

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
- 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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