# EVERLIGHT

# DATASHEET

# 5mm photodiode PD333-3C/H0/L2

#### Features

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



#### Description

 PD333-3C/H0/L2 is a high speed and high sensitive PIN photodiode in a standard 5Φ plastic package. Due to its water clear epoxy the device is sensitive to infrared radiation

#### Applications

- High speed photo detector
- Security system
- Camera

## **Device Selection Guide**

Chip Materials	Lens Color
Silicon	Water clear

## Absolute Maximum Ratings (Ta=25°C)

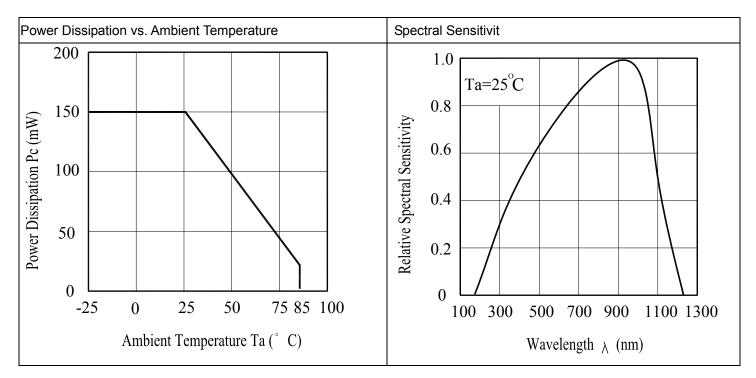
Parameter	Symbol	Rating	Unit		
Reverse Voltage	V <sub>R</sub>	32	V		
Operating Temperature	T <sub>opr</sub>	-25 ~ +85	°C		
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C		
Soldering Temperature	T <sub>sol</sub>	260	°C		
Power Dissipation at (or below)	P <sub>c</sub>	150	mW		
25°C Free Air Temperature					

## Electro-Optical Characteristics (Ta=25°C)

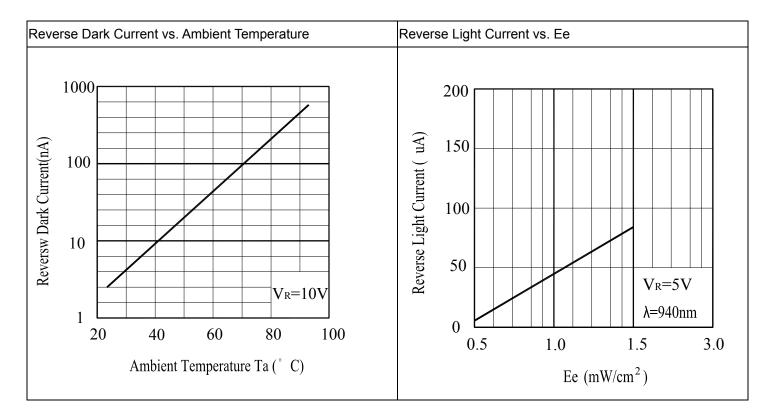
Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Range Of Spectral Bandwidth	$\lambda_{0.5}$	400		1100	nm	
Wavelength Of Peak Sensitivity	$\lambda_{P}$		940		nm	
Open-Circuit Voltage	V <sub>oc</sub>		0.39		V	Ee=1mW/cm <sup>2</sup> λp=940nm
Short- Circuit Current	I <sub>SC</sub>		40		μA	Ee=1mW/cm <sup>2</sup> λp=940nm
Reverse Light Current	IL	36	40		μA	Ee=1mW/cm <sup>2</sup> $\lambda p$ =940nm $V_R$ =5V
Reverse Dark Current	I <sub>D</sub>		5	30	nA	Ee=0mW/cm <sup>2</sup> V <sub>R</sub> =10V
Reverse Breakdown Voltage	$V_{BR}$	32	170		v	Ee=0mW/cm <sup>2</sup> I <sub>R</sub> =100µA
Total Capacitance	Ct		18		pF	Ee=0mW/cm <sup>2</sup> V <sub>R</sub> =5V f=1MHz
Rise Time/ Fall Time	t <sub>r/</sub> /t <sub>f</sub>		45/45		ns	V <sub>R</sub> =10V R <sub>L</sub> =100Ω
View Angle	201/2		80		deg	I <sub>F</sub> =20mA

Note:

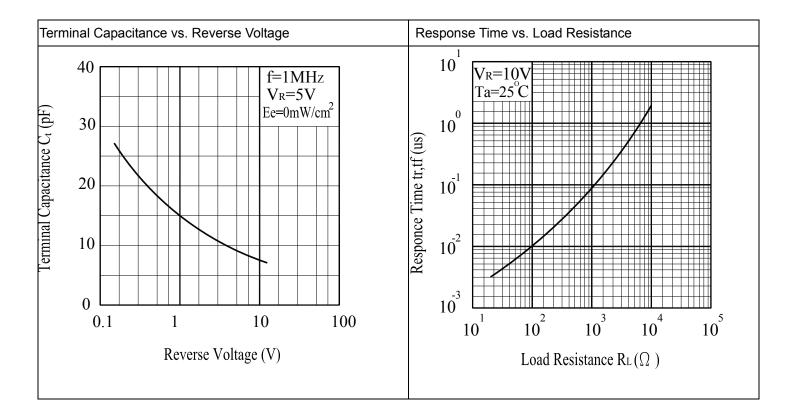
Tolerance of Luminous Intensity: ±10% Tolerance of Dominant Wavelength: ±1nm Tolerance of Forward Voltage: ±0.1V



#### **Typical Electro-Optical Characteristics Curves**

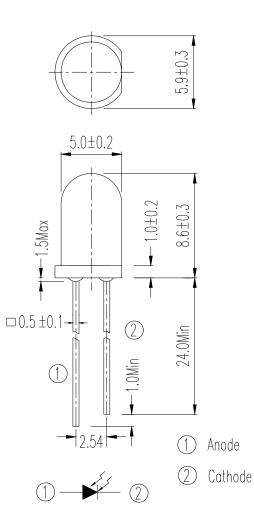


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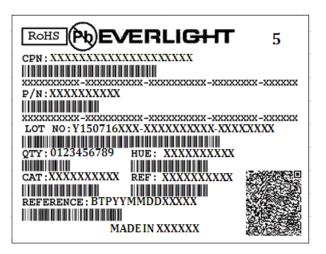
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## Package Dimension



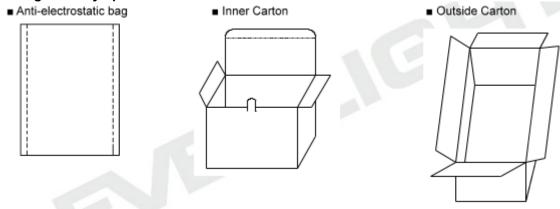
Note: Tolerances unless dimensions ±0.25mm

#### 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

#### **Packing Quantity Specification**



1.200~500PCS/1Bag · 5Bags/1 Inner Carton 2.10 Inner Cartons/1 Outside Carton

#### 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.
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