

# **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℃)

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



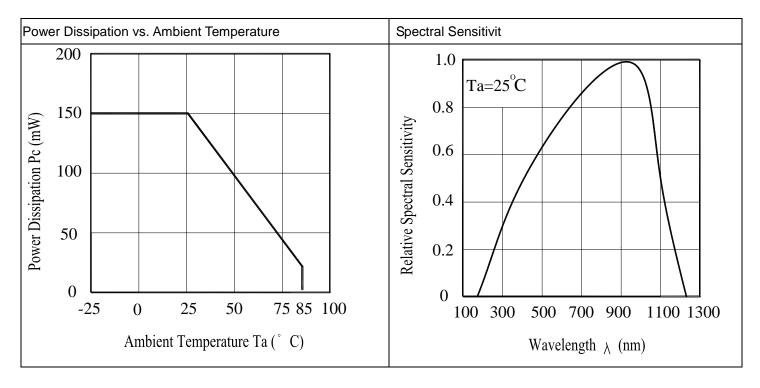
## **Electro-Optical Characteristics (Ta=25℃)**

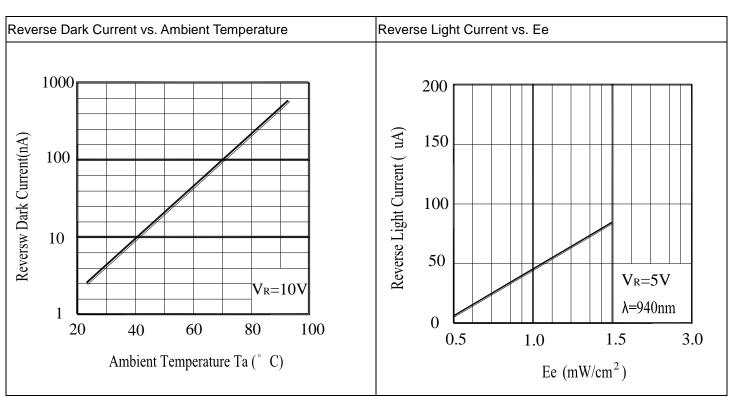
Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Range Of Spectral Bandwidth	λ <sub>0.5</sub>	400		1100	nm	
Wavelength Of Peak Sensitivity	$\lambda_{P}$		940		nm	
Open-Circuit Voltage	V <sub>OC</sub>		0.39		V	Ee=1mW/cm <sup>2</sup> λp=940nm
Short- Circuit Current	I <sub>SC</sub>		40		μΑ	Ee=1mW/cm <sup>2</sup> λp=940nm
Reverse Light Current	IL	36	40		μΑ	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

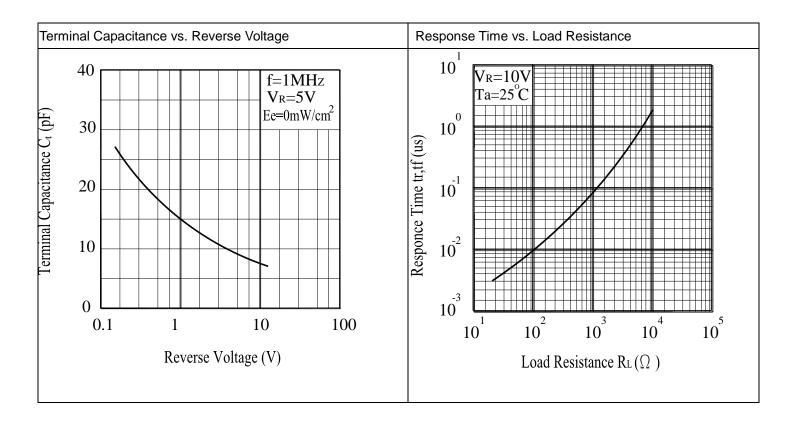
#### Note:

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

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

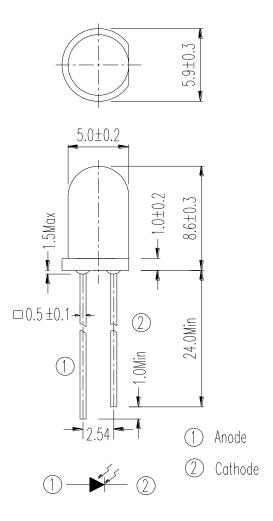








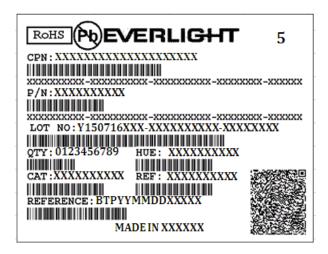
## **Package Dimension**



Note: Tolerances unless dimensions ±0.25mm



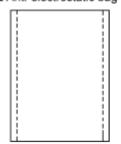
#### **Label Form Specification**



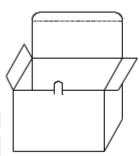
- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- · CAT: Luminous Intensity Rank
- · HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- · LOT No: Lot Number
- X: Month
- · Reference: Identify Label Number

#### **Packing Quantity Specification**

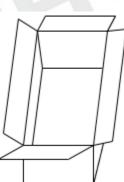




Inner Carton



■ Outside Carton



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



#### **DISCLAIMER**

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