

### 5mm Phototransistor PD333-3B/L3

#### Features

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

#### Description

- PD333-3B/L3 is a high speed and high sensitive PIN photodiode in a standard 5Φ plastic package. Due to its black epoxy the device is sensitive to infrared radiation

#### Applications

- High speed photo detector
- Security system
- Camera

## 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	$T_{opr}$	-25 ~ +85	
Storage Temperature	$T_{stg}$	-40 ~ +100	
Soldering Temperature	$T_{sol}$	260	
Power Dissipation at (or below) 25℃ Free Air Temperature	$P_c$	150	mW

## Electro-Optical Characteristics (Ta=25 )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Range Of Spectral Bandwidth	$\lambda_{0.5}$	840	-----	1100	nm	-----
Wavelength Of Peak Sensitivity	$\lambda_p$	-----	940	-----	nm	-----
Open-Circuit Voltage	$V_{OC}$	-----	0.44	-----	V	$E_e=5mW/cm^2$ $\lambda_p=940nm$
Short- Circuit Current	$I_{SC}$	-----	10	-----	$\mu A$	$E_e=1mW/cm^2$ $\lambda_p=940nm$
Reverse Light Current	$I_L$	10	-----	-----	$\mu A$	$E_e=1mW/cm^2$ $\lambda_p=940nm$ $V_R=5V$
Reverse Dark Current	$I_D$	----	----	10	nA	$E_e=0mW/cm^2$ $V_R=10V$
Reverse Breakdown Voltage	$V_{BR}$	32	170	-----	V	$E_e=0mW/cm^2$ $I_R=100\mu A$
Total Capacitance	$C_t$	-----	10	-----	pF	$E_e=0mW/cm^2$ $V_R=5V$ $f=1MHz$
Rise Time/ Fall Time	$t_r / t_f$	-----	10	-----	ns	$V_R=10V$ $R_L=100\Omega$

### $I_L$ Rank

Condition :  $E_e=1mW/cm^2$ 、 $\lambda_p=940nm$ 、 $V_R=5V$

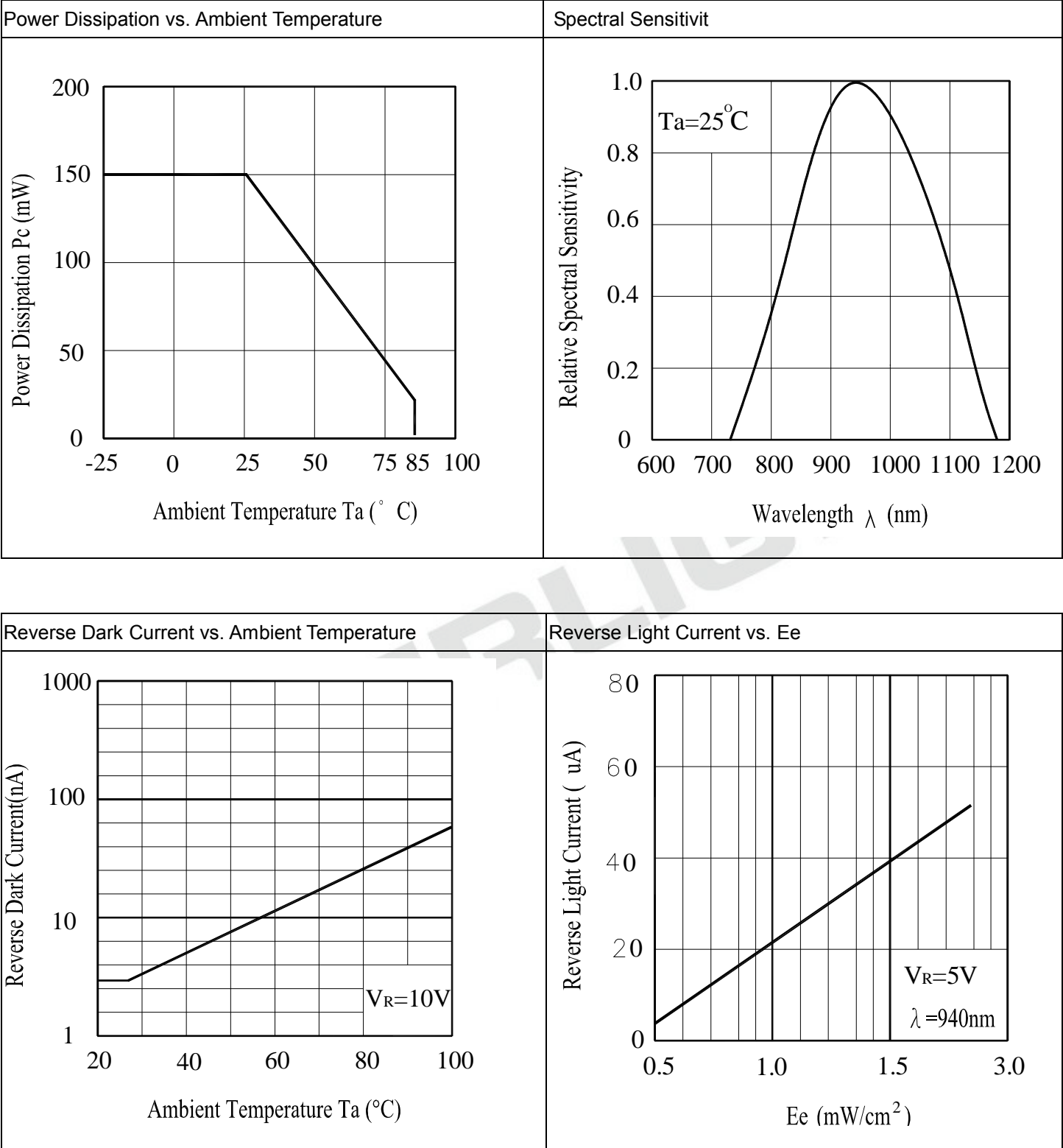
Unit :  $\mu A$

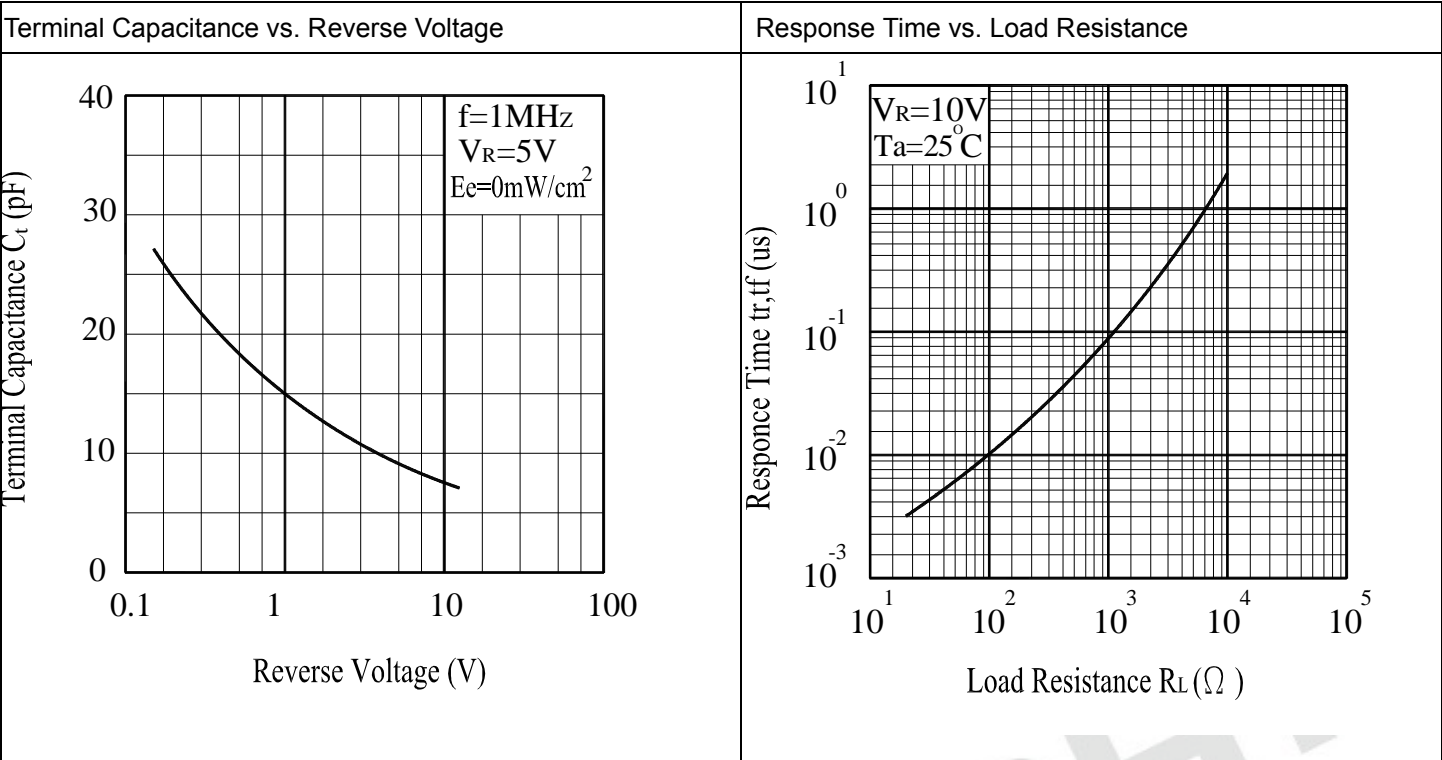
业务技术咨询：TEL微信13422876592

Bin Number	BIN1	BIN2	BIN3	BIN4
Min	10	20	30	40
Max	20	30	40	50

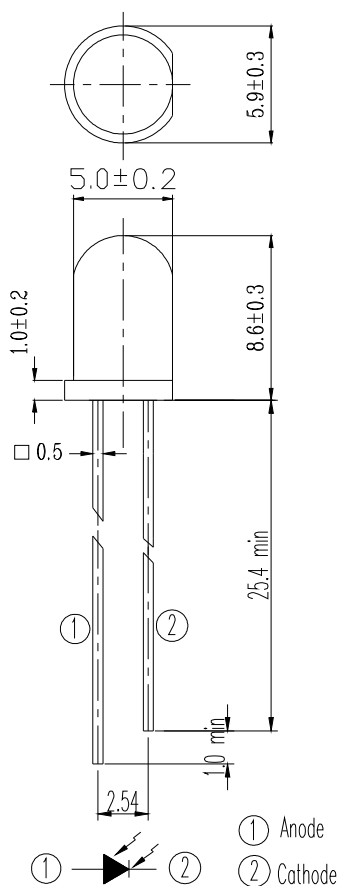
Tolerances : 20%

Typical Electro-Optical Characteristics Curves





## Package Dimension



Note: Tolerances unless dimensions  $\pm 0.25$ mm

### Packing Quantity Specification

1.500PCS/1Bag , 5Bags/1Box

2.10Boxes/1Carton

### Label Form Specification

The diagram illustrates the layout of a product label. It includes the following elements:

- EVERLIGHT** logo at the top center.
- Pb** (Lead-free) symbol in a circle on the top left.
- X** (Month) symbol in a circle on the top right.
- RoHS** (Restriction of Hazardous Substances) symbol in a rectangle.
- CPN:** Customer's Product Number (text field).
- P/N:** Product Number (text field).
- PD333-3B/L3** (Product Part Number) (text field).
- QTY:** Packing Quantity (text field).
- CAT:** Luminous Intensity Rank (text field).
- HUE:** Dom. Wavelength Rank (text field).
- REF:** Forward Voltage Rank (text field).
- LOT NO:** Lot Number (text field).
- Reference** (text field).
- Four barcode fields corresponding to the above text fields.

- 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

### Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. 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 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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