

5mm photodiode PD333-3B/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

- PD333-3B/H0/L2 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°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	32	V
Operating Temperature	T_{opr}	-25 ~ +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

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}	-----	0.39	-----	V	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$
Short- Circuit Current	I_{SC}	-----	35	-----	μA	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$
Reverse Light Current	I_L	25	35	-----	μA	$E_e=1\text{mW/cm}^2$ $\lambda_p=940\text{nm}$ $V_R=5\text{V}$
Reverse Dark Current	I_D	----	5	30	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	-----	18	-----	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	-----	45	-----	ns	$V_R=10\text{V}$ $R_L=100\Omega$
View Angle	2 θ 1/2	-----	80	-----	deg	$I_F=20\text{mA}$

Note:

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

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

I_L Rank

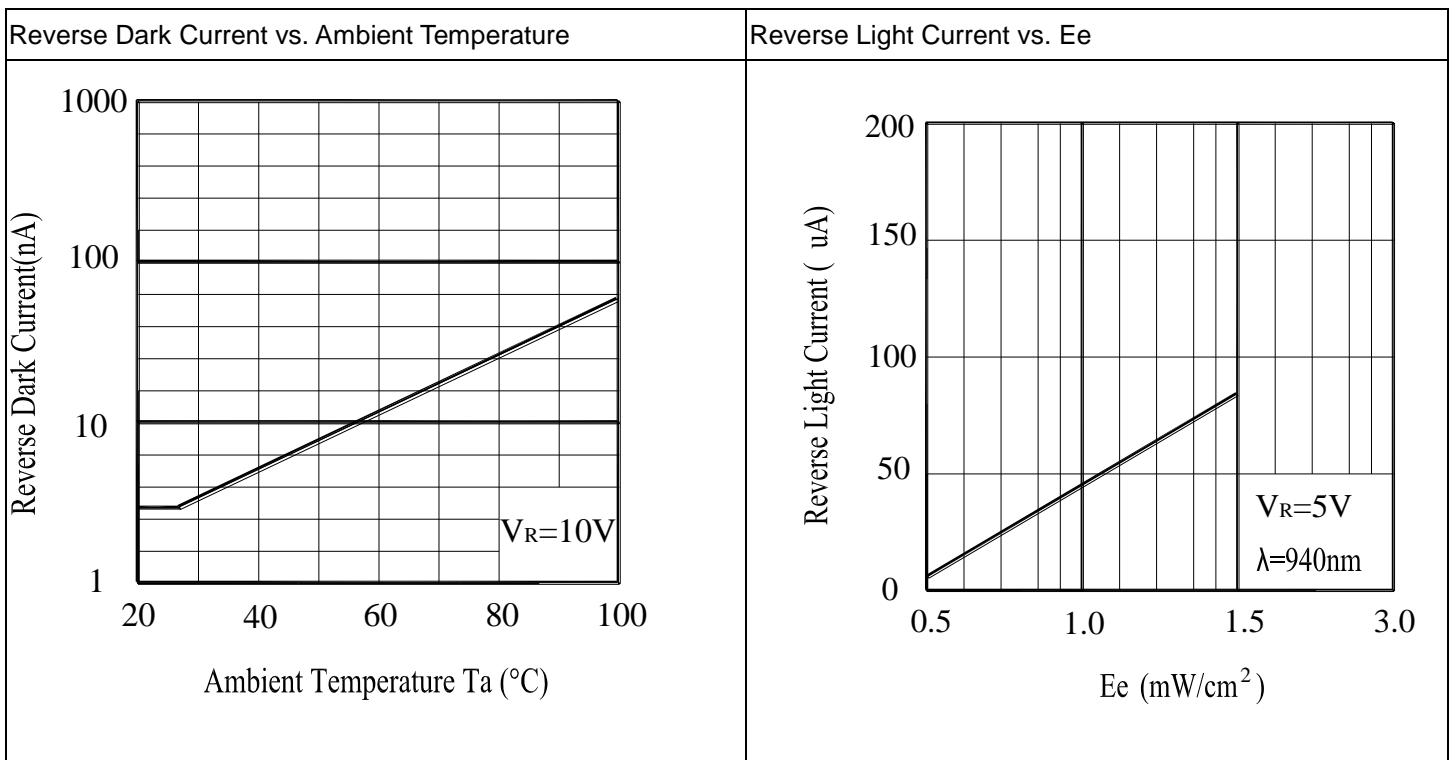
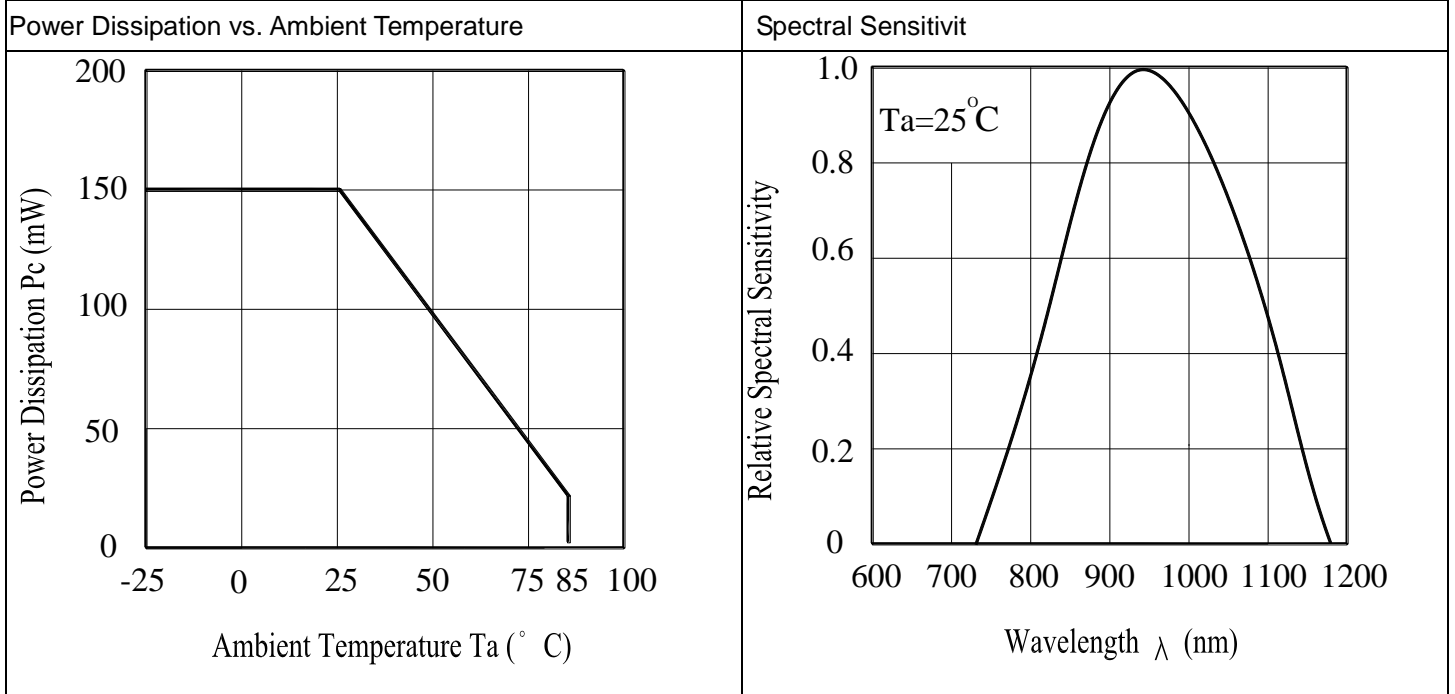
Condition : $E_e=1\text{mW/cm}^2$ 、 $\lambda_p=940\text{nm}$ 、 $V_R=5\text{V}$

Unit : μA

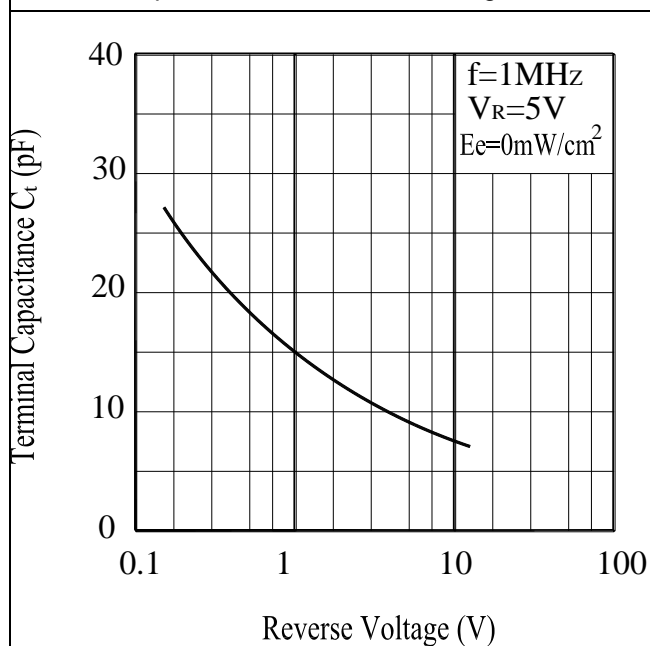
Bin Number	BIN1	BIN2	BIN3	BIN4	BIN5
Min	25	35	45	55	65
Max	35	45	55	65	75

Tolerances: 20%

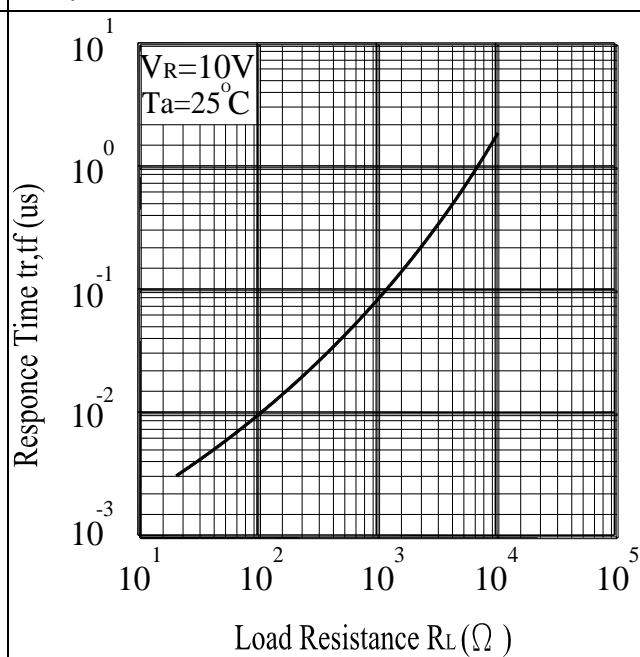
Typical Electro-Optical Characteristics Curves



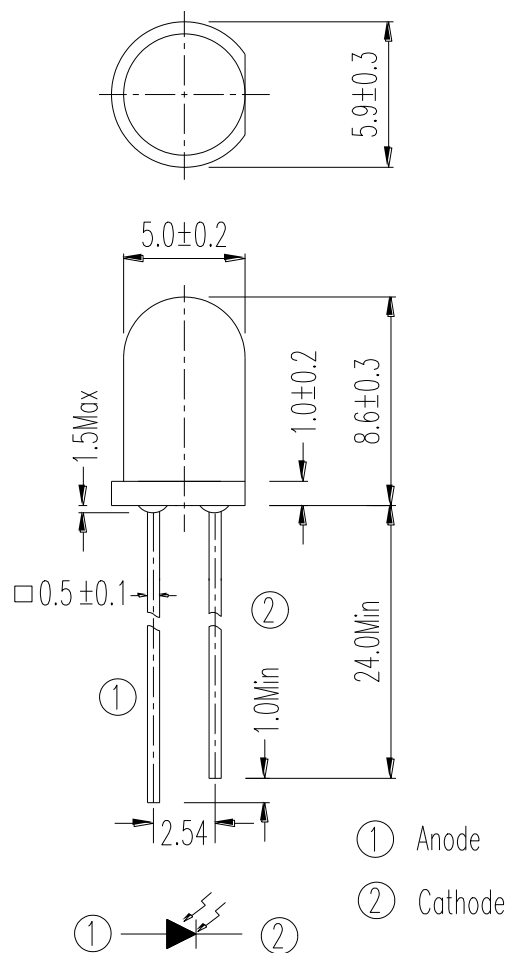
Terminal Capacitance vs. Reverse Voltage



Response Time vs. Load Resistance



Package Dimension



Note: Tolerances unless dimensions ± 0.25 mm

Packing Quantity Specification

1.200~500PCS/1Bag , 5Bags/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
- X: Month
- Reference: Identify Label Number

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