

5mm Photodiode PD333-3B/L1



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/L1 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}	-----	0.44	-----	V	Ee=5mW/cm ² λ_p =940nm
Short- Circuit Current	I_{SC}	-----	10	-----	μA	Ee=1mW/cm ² λ_p =940nm
Reverse Light Current	I_L	15	-----	-----	μA	Ee=1mW/cm ² λ_p =940nm V_R =5V
Reverse Dark Current	I_D	----	----	30	nA	Ee=0mW/cm ² V_R =10V
Reverse Breakdown Voltage	V_{BR}	32	170	-----	V	Ee=0mW/cm ² I_R =100μA
Total Capacitance	C_t	-----	6.0	-----	pF	Ee=0mW/cm ² V_R =5V f=1MHz
Rise Time/ Fall Time	t_r / t_f	-----	10	-----	ns	V_R =10V R_L =100Ω

Note:

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

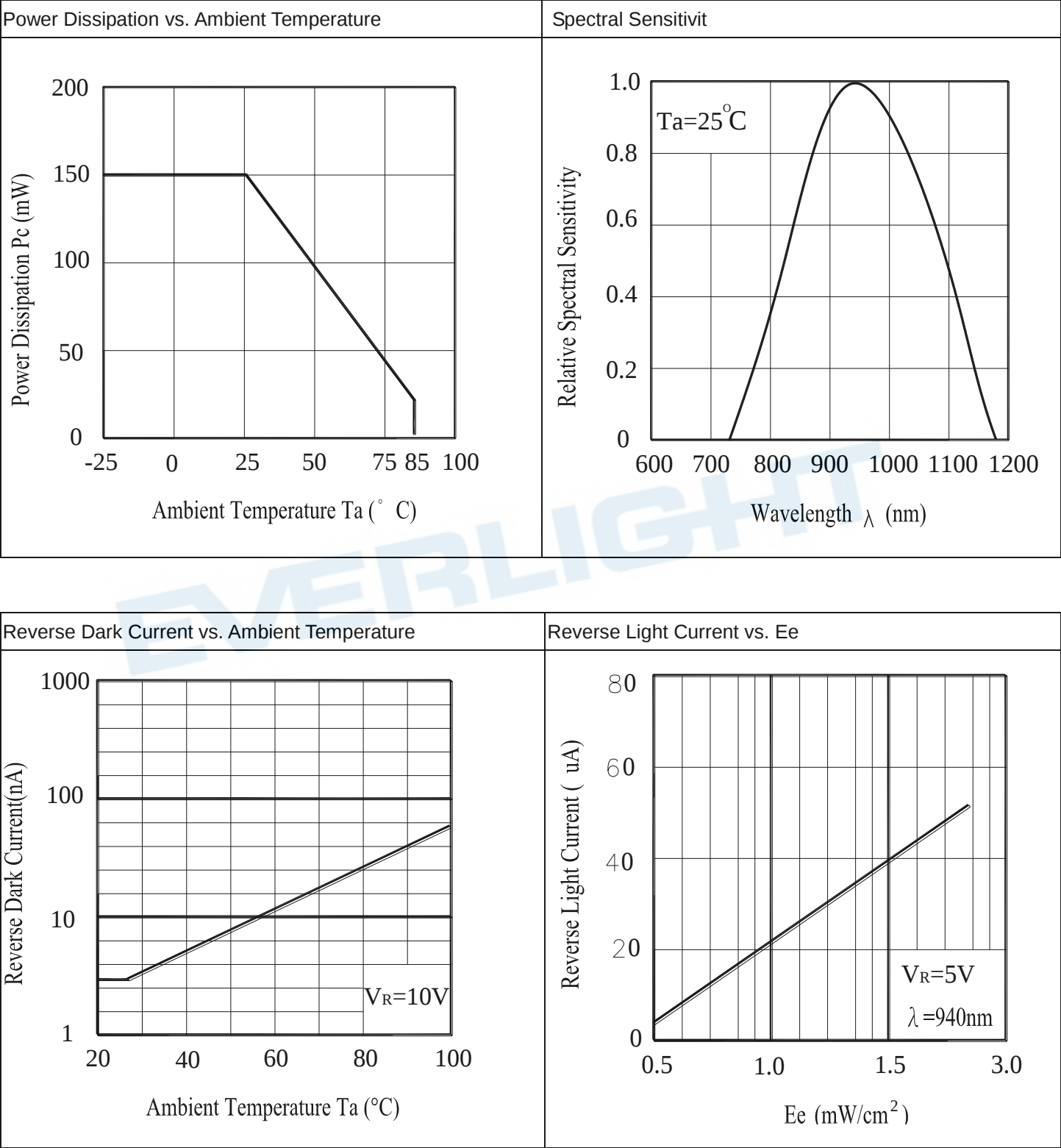
I_L Rank

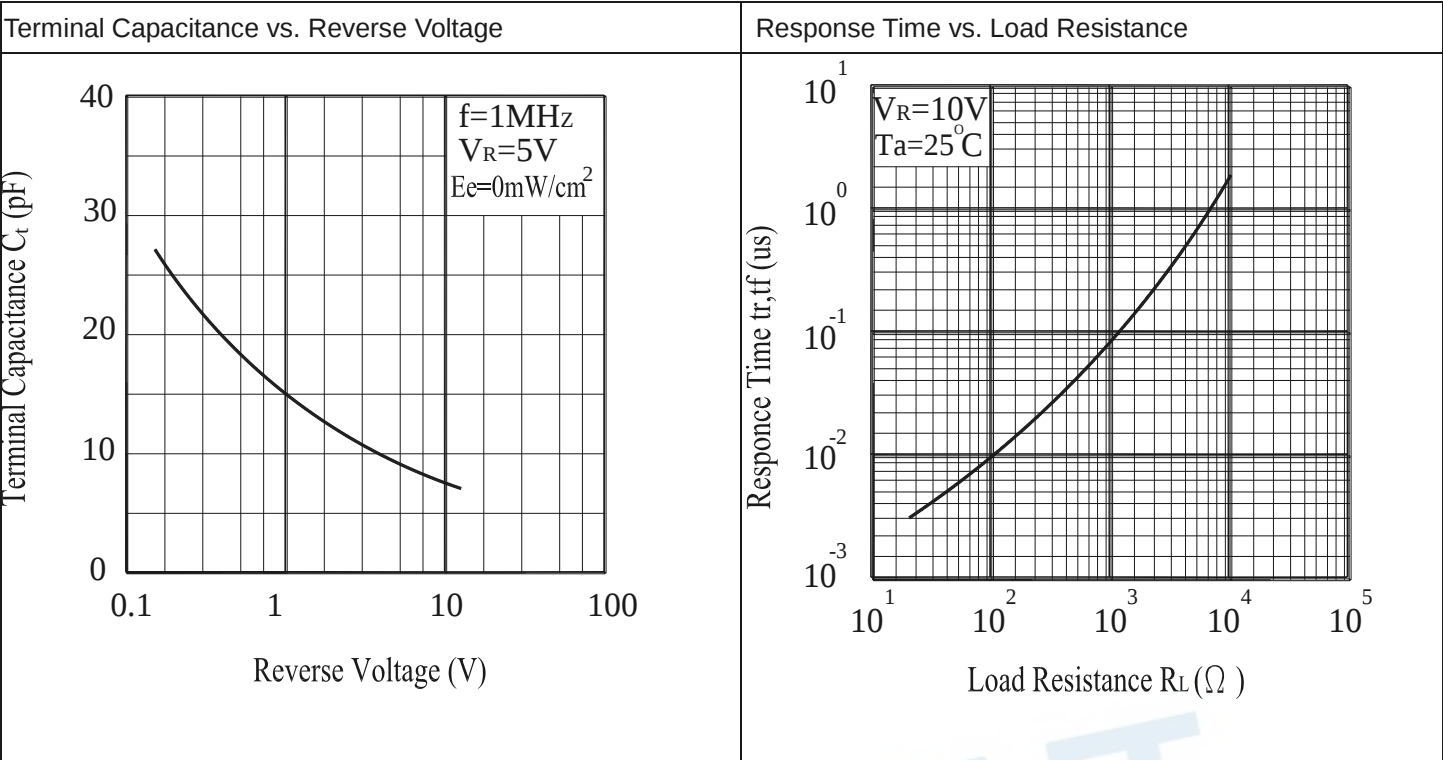
Condition : Ee=1mW/cm²、 λ_p =940nm、 V_R =5V

Unit : uA

Bin Number	BIN1	BIN2	BIN3	BIN4	BIN5
Min	15	25	35	45	55
Max	25	35	45	55	65

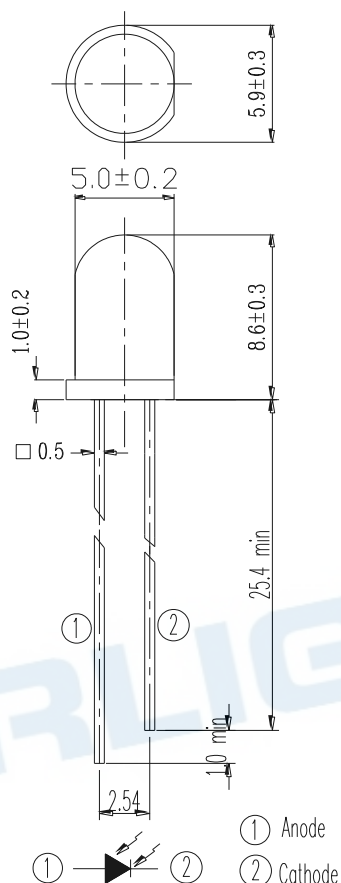
Typical Electro-Optical Characteristics Curves





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Package Dimension



Note: Tolerances unless dimensions ± 0.25 mm

Packing Quantity Specification

1.500PCS/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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