

3mm Photodiode EAPDLP03RDAA0



Features

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

Description

EAPDLP03RDAA0 is a high speed and high sensitive PIN photodiode in a standard 3Φ plastic package.

The device is Spectrally matched to visible and infrared emitting diode.

Applications

- Automatic door sensor
- Copier
- Game machine

Device Selection Guide

Chip Materials	Lens Color
Silicon	Black

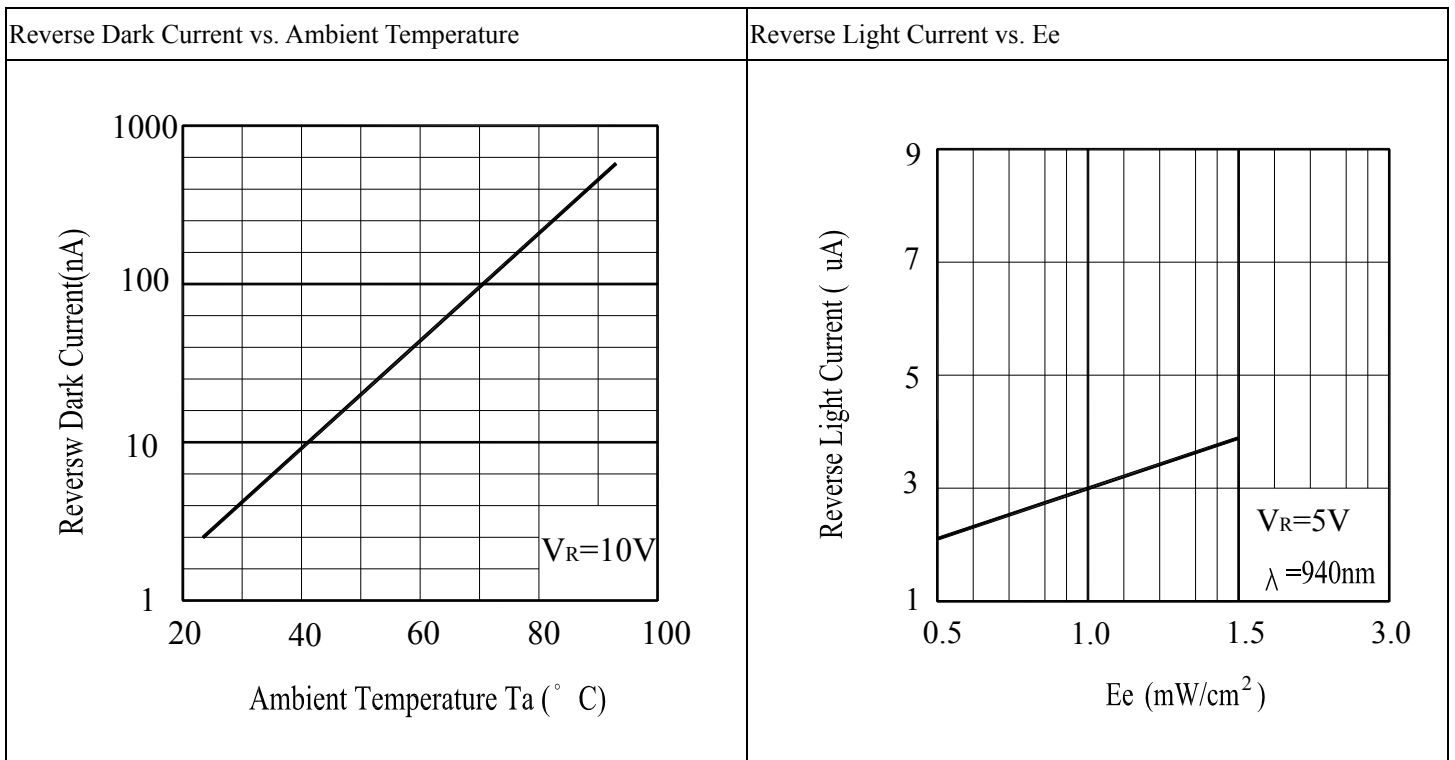
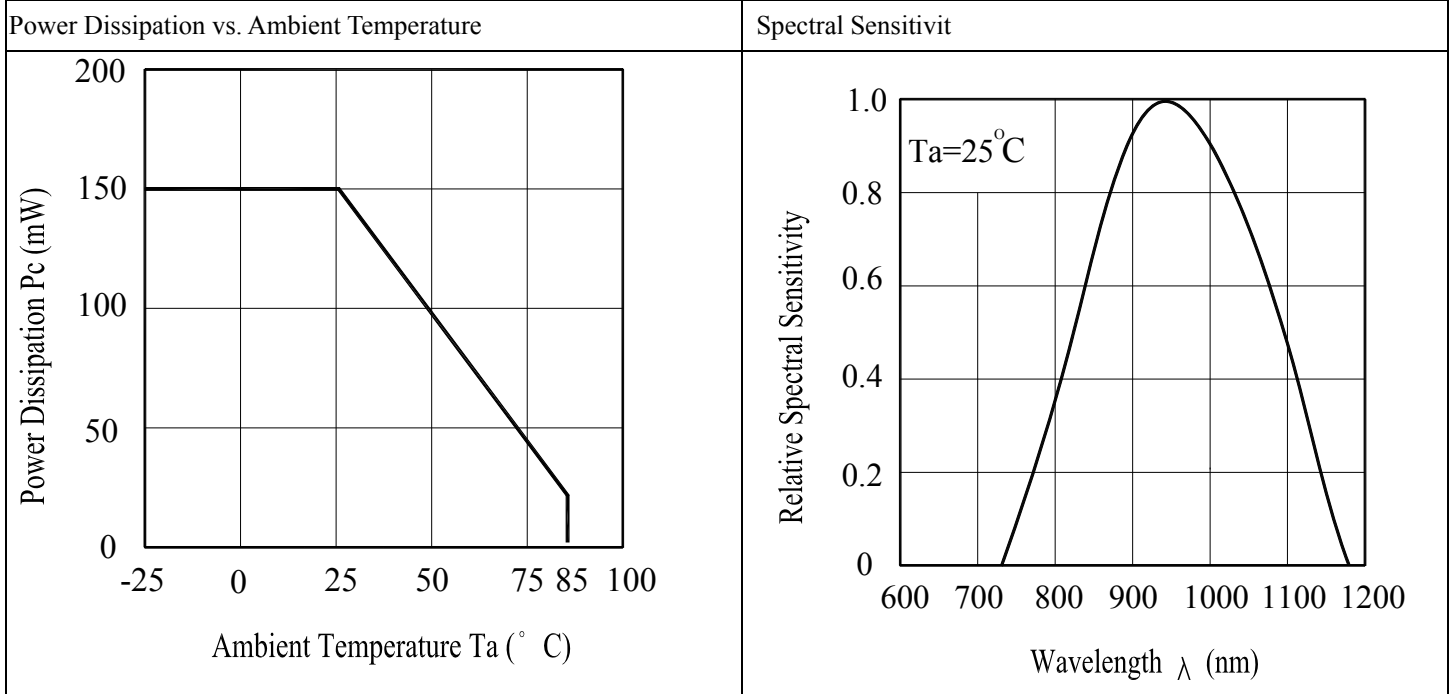
Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	32	V
Operating Temperature	T_{opr}	-25 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
Soldering Temperature	T_{sol}	260	°C
Power Dissipation at (or below) 25°C Free Air Temperature	P_c	150	mW

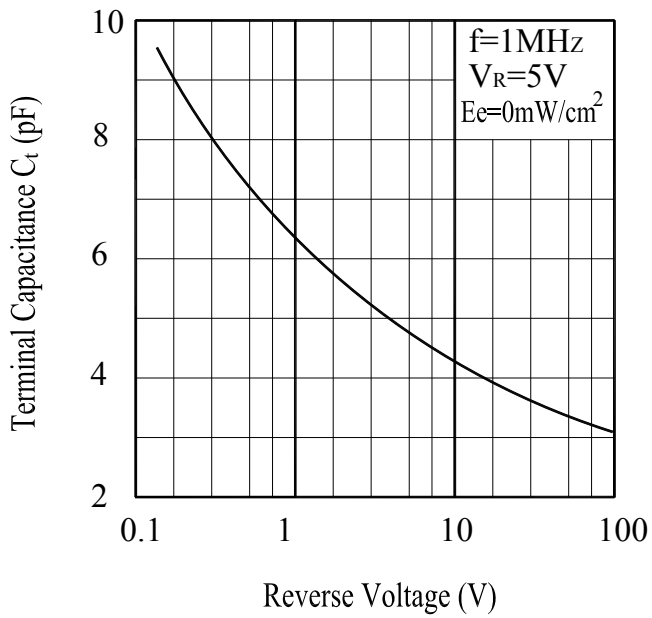
Electro-Optical Characteristics (Ta=25°C)

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}	---	0.42	---	V	Ee=5mW/cm ² $\lambda_p=940\text{nm}$
Short- Circuit Current	I_{SC}	---	3.0	---	μA	Ee=1mW/cm ² $\lambda_p=940\text{nm}$
Reverse Light Current	I_L	1.0	3.0	---	μA	Ee=1mW/cm ² $\lambda_p=940\text{nm}$ $V_R=5\text{V}$
Reverse Dark Current	I_D	---	---	10	nA	Ee=0mW/cm ² $V_R=10\text{V}$
Reverse Breakdown Voltage	V_{BR}	32	170	---	μA	Ee=0mW/cm ² $I_R=100\mu\text{A}$
Total Capacitance	C_t	---	5	---	pF	Ee=0mW/cm ² $V_R=5\text{V}$ f=1MHz
Rise Time/ Fall Time	t_r / t_f	-----	6	-----	ns	$V_R=10\text{V}$ $R_L=100\Omega$

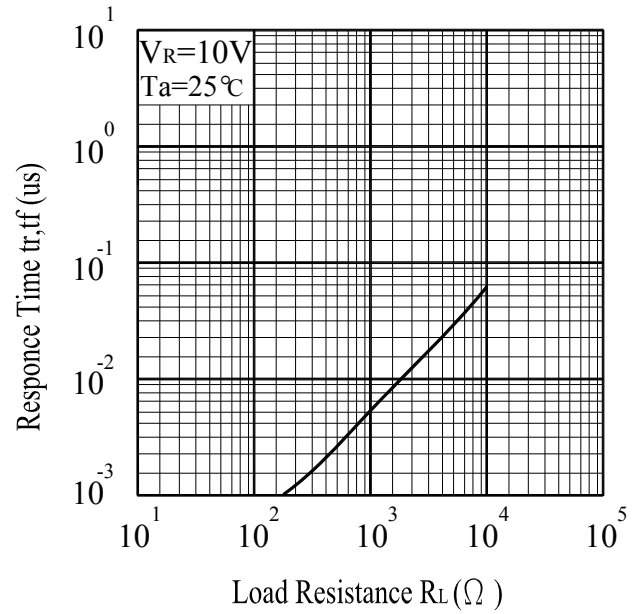
Typical Electro-Optical Characteristics Curves



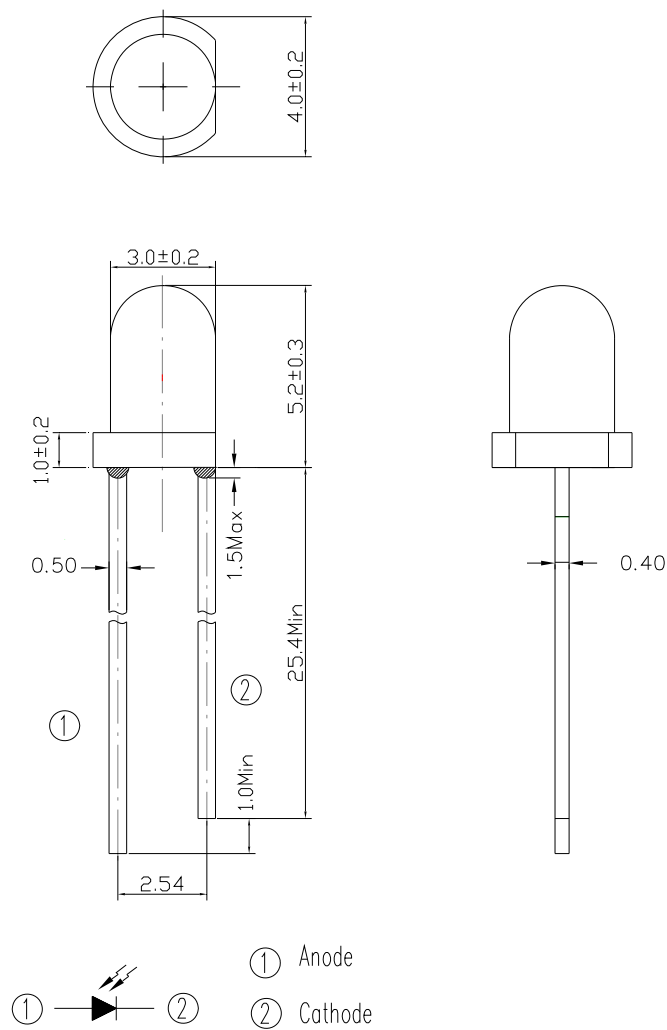
Terminal Capacitance vs. Reverse Voltage



Response Time vs. Load Resistance

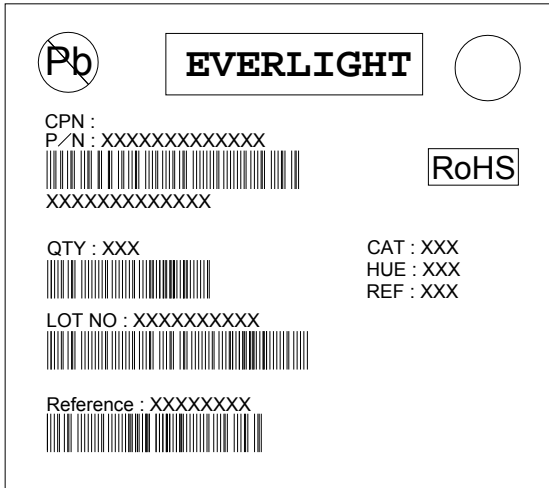


Package Dimension



Note: Tolerances unless dimensions ± 0.25 mm

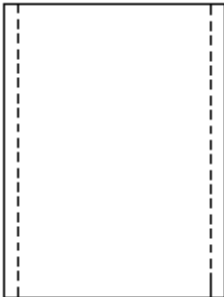
Label Form Specification



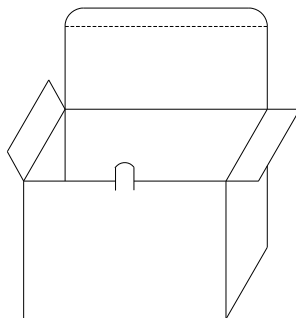
- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number
- X: Month
- Reference: Identify Label Number

Packing Specification

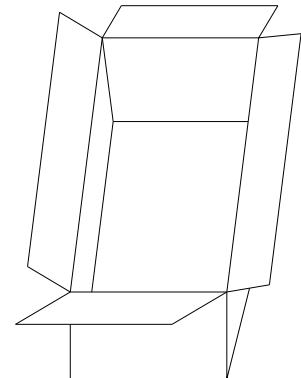
■ Anti-electrostatic bag



■ Inner Carton



■ Outside Carton



■ Packing Quantity

1. 1000 PCS/1 Bag, 4 Bags/1 Inner Carton
2. 10 Inner Cartons/1 Outside Carton

Notes

1. Above specification may be changed without notice. Everlight Americas 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 Americas 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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