

### 4.8mm Semi-Lens Silicon PIN Photodiode EAPDLP04SCAA5

#### Features

- Fast response times
- High photo sensitivity
- Small junction capacitance
- Pb free
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH

#### Description

- EAPDLP04SCAA5 is a high speed and sensitive PIN photodiode in a cylindrical side view plastic package. The epoxy package itself is an IR filter , spectrally matched to IR emitter.

#### Applications

- High speed photo detector
- Camera
- Optoelectronic switch
- VCRs , Video 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    |
| Power Dissipation         | $P_d$     | 150        | mW   |
| Operating Temperature     | $T_{opr}$ | -40 ~ +85  | °C   |
| Storage Temperature       | $T_{stg}$ | -40 ~ +100 | °C   |
| Soldering Temperature(*1) | $T_{sol}$ | 260        | °C   |

**Notes:** \*1: Soldering time  $\leq$  5 seconds.

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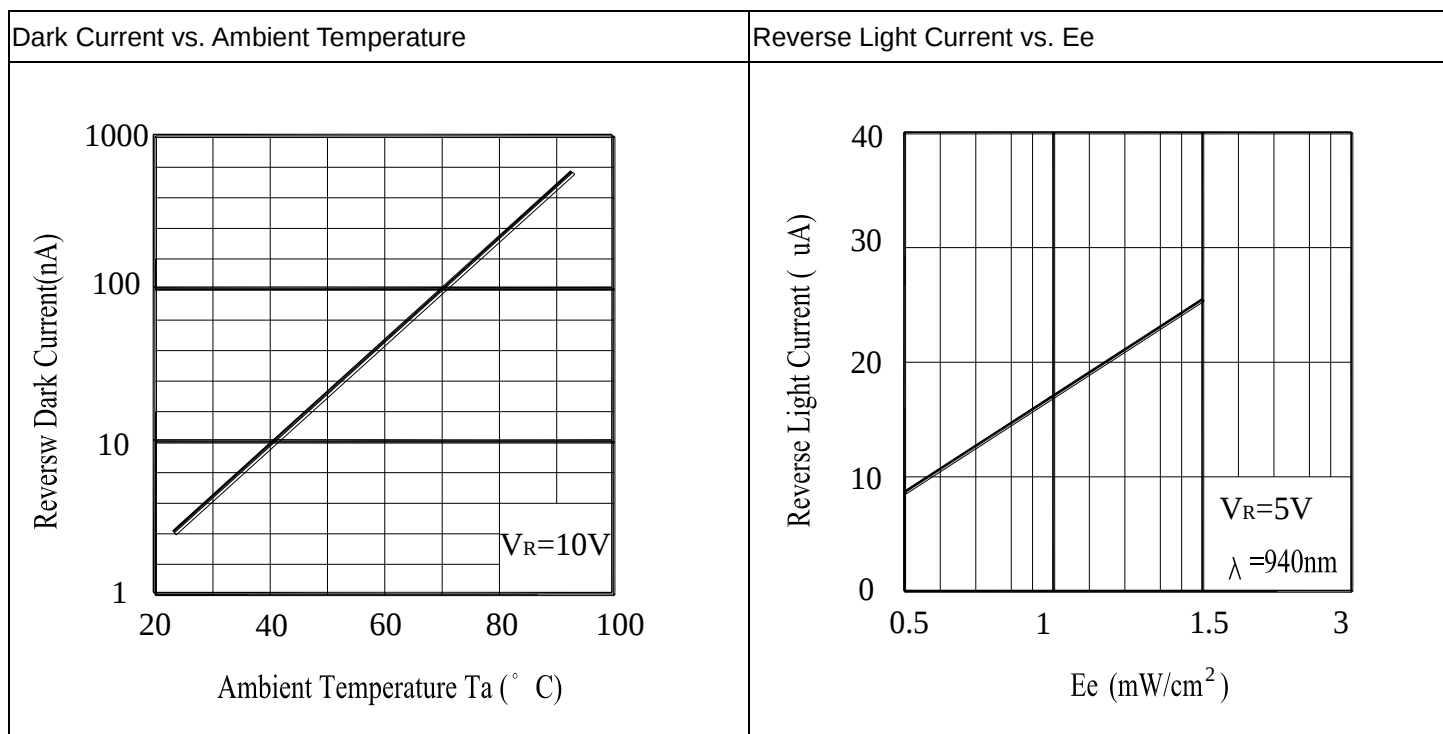
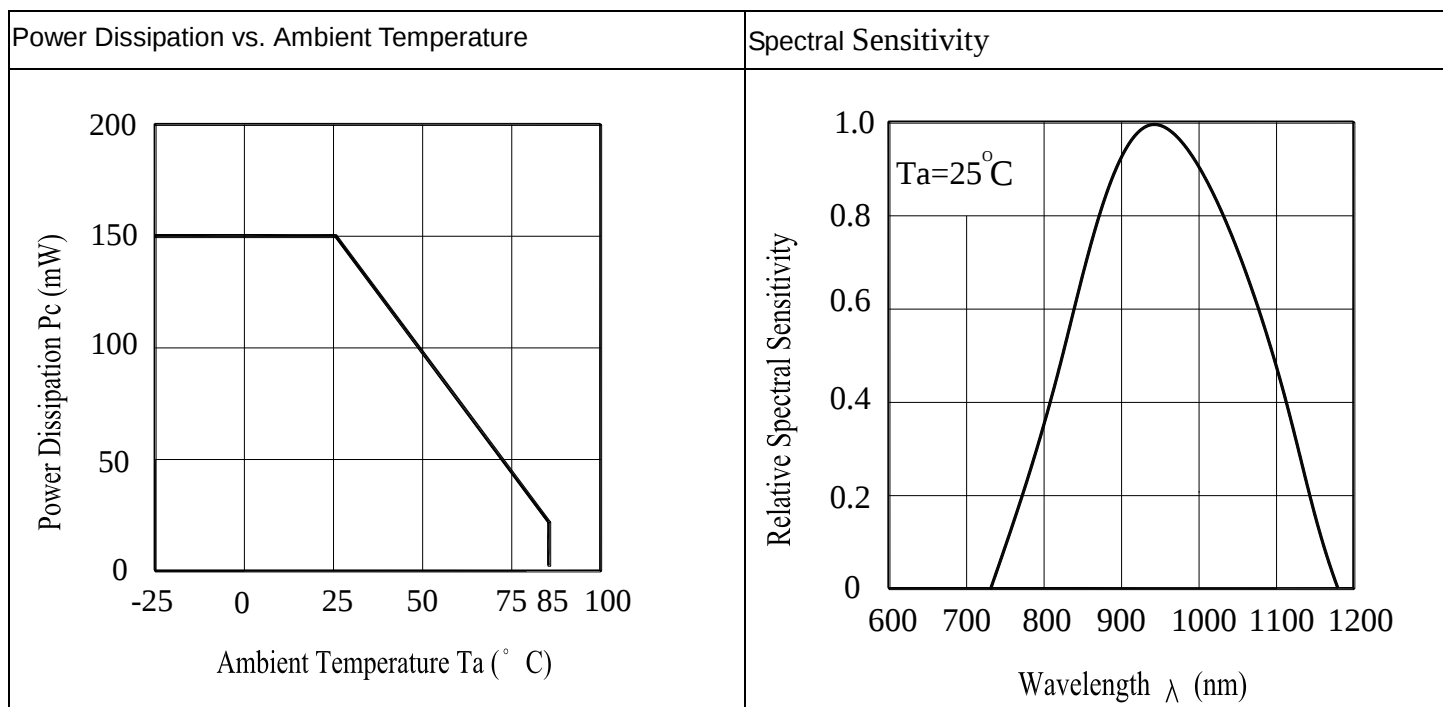
## Electro-Optical Characteristics (Ta=25°C)

| Parameter                      | Symbol          | Min.  | Typ.  | Max.  | Unit | Condition                                        |
|--------------------------------|-----------------|-------|-------|-------|------|--------------------------------------------------|
| Rang of Spectral Bandwidth     | $\lambda_{0.5}$ | 400   | ----- | 1100  | nm   | -----                                            |
| Wavelength of Peak Sensitivity | $\lambda_p$     | ----- | 940   | ----- | nm   | -----                                            |
| Open-Circuit Voltage           | VOC             | ----- | 0.35  | ----- | V    | Ee=5m W/cm2<br>$\lambda_p=940\text{nm}$          |
| Short- Circuit Current         | ISC             | ----- | 18    | ----- | uA   | Ee=1m W/cm2<br>$\lambda_p=940\text{nm}$          |
| Reverse Light Current          | $I_L$           | 10.2  | 18    | ----- | uA   | Ee=1m W/cm2<br>$\lambda_p=940\text{nm}$<br>VR=5V |
| Dark Current                   | $I_d$           | ----  | 5     | 30    | nA   | Ee=0m W/cm2<br>VR=10V                            |
| Reverse Breakdown              | BVR             | 32    | 170   | ----- | V    | Ee=0m W/cm2<br>IR=100uA                          |
| Total Capacitance              | Ct              | ----  | 25    | ----  | pF   | Ee=0m W/cm2<br>VR=3V<br>f=1MHZ                   |
| Rise/Fall Time                 | tr/tf           | ----  | 50/50 | ----  | nS   | VR=10V<br>RL=1KΩ                                 |

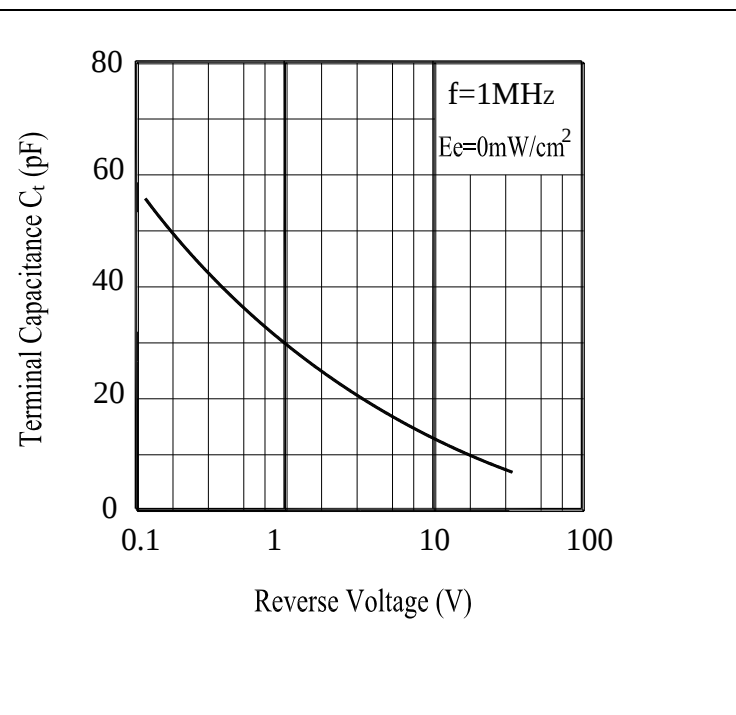
Note:

Tolerance of Luminous Intensity:  $\pm 10\%$   
Tolerance of Dominant Wavelength:  $\pm 1\text{nm}$   
Tolerance of Forward Voltage:  $\pm 0.1\text{V}$

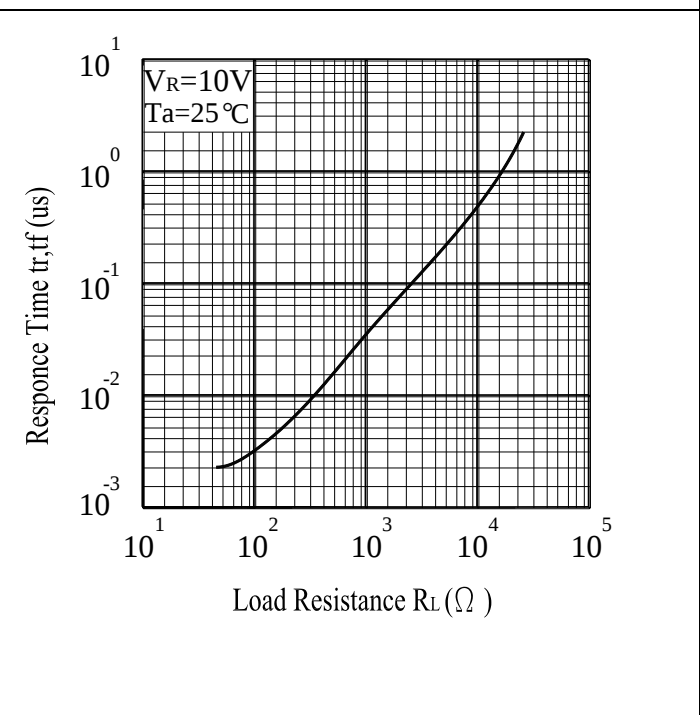
## Typical Electro-Optical Characteristics Curves



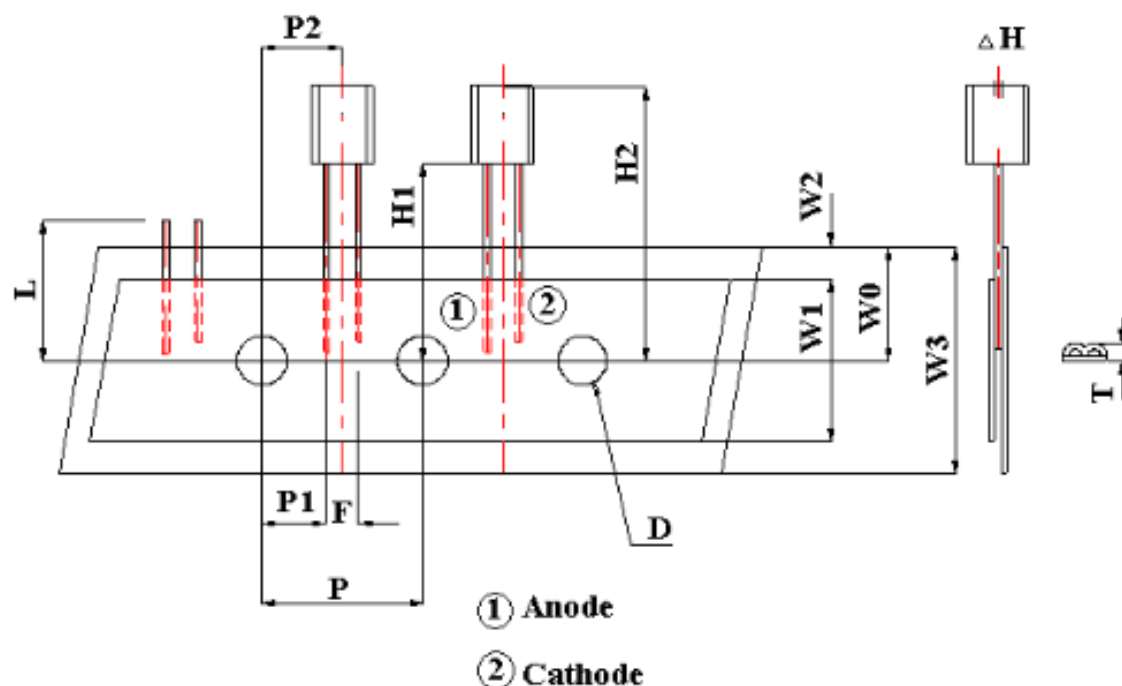
Terminal Capacitance vs. Reverse Voltage



Response Time vs. Load Resistance



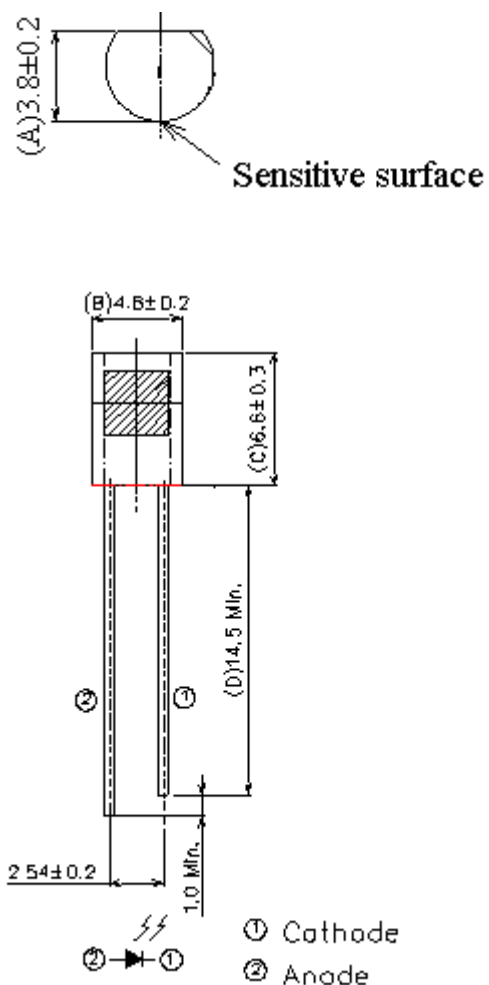
## Taping Dimensions



## Taping Sizes

| Symbol Item                           | Symbol | Specifications |        |           |
|---------------------------------------|--------|----------------|--------|-----------|
|                                       |        | Avg            |        | Tolerance |
|                                       |        | mm             | Inch   | mm        |
| Tape Feed Hold Diameter               | D      | 4.0            | 0.157  | ±0.2      |
| Component Lead Pitch                  | F      | 2.54           | 0.100  | ±0.5      |
| Front-To-Rear Deflection              | ΔH     | 0°             | 0      | ±0.5°     |
| Feed Hole To Button Of Component      | H1     | 18.5           | 0.728  | ±1.0      |
| Feed Hole To Overall Component Height | H2     | 25.1           | 1.028  | ±1.0      |
| Lead Length After Component Height    | L      | 11.0           | 0.433  | MAX       |
| Feed Hold Pitch                       | P      | 12.7           | 0.500  | ±0.3      |
| Lead Location                         | P1     | 5.08           | 0.200  | ±0.7      |
| Center Of Component Location          | P2     | 6.35           | 0.250  | ±1.2      |
| Overall Taped Package Thickness       | T      | 1.42           | 0.056  | MAX       |
| Feed Hold Location                    | W0     | 9.0            | 0.354  | ±0.5      |
| Adhesive Tape Width                   | W1     | 13.0           | 0.512  | ±0.25     |
| Adhesive Tape Position                | W2     | 2.0            | 0.0789 | MAX       |
| Tape Width                            | W3     | 18.0           | 0.709  | ±0.75     |

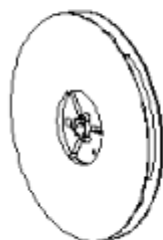
## Package Dimension



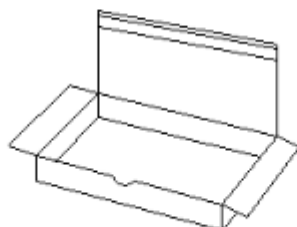
Note: Tolerances unless dimensions  $\pm 0.25$ mm

## Packing Specification

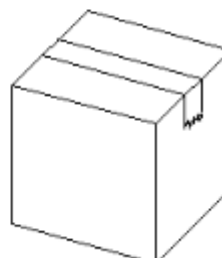
■ Tape



■ Inner Carton



■ Outside Carton



### ■ Packing Quantity

1. 1000PCS/1 Tape, 2 Tape s/1 Inner BOX
2. 5Inner BOXES/ Outside Carton

## Label Form Specification

|                                                  |    |                  |   |
|--------------------------------------------------|----|------------------|---|
| RoHS                                             | Pb | <b>EVERLIGHT</b> | 5 |
| CPN: XXXXXXXXXXXXXXXXXXXX                        |    |                  |   |
| XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXX-XXXXXX |    |                  |   |
| P/N: XXXXXXXXXXXX                                |    |                  |   |
| XXXXXXXXXX-XXXXXXXXXX-XXXXXXXXXX-XXXXXXXX-XXXXXX |    |                  |   |
| LOT NO: Y150716XXX-XXXXXXXXXX-XXXXXXX            |    |                  |   |
| QTY: 0123456789 HUE: XXXXXXXXXXXX                |    |                  |   |
| CAT: XXXXXXXXXXXX REF: XXXXXXXXXXXX              |    |                  |   |
| REFERENCE: BTPYYMDDXXXXX                         |    |                  |   |
| MADE IN XXXXXX                                   |    |                  |   |



- 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
- Reference: Identify Label Number

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