

EIPD (Edge Illuminated InGaAs PD)

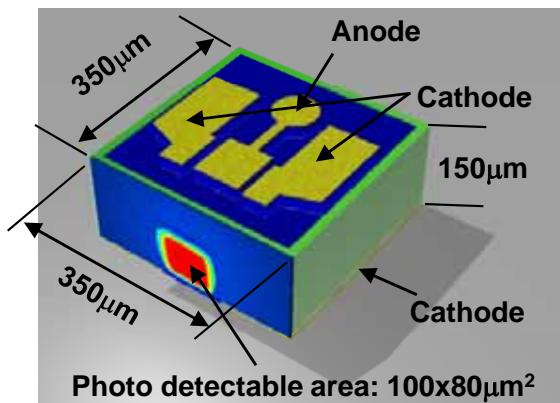
Features

- Edge illuminated type for surface hybrid integration
- Low dark current
- High reliability

Applications

- Laser back light power monitor
- FTTH digital optical communication
- Optical interconnection

Dimensions (unit: μm)



Specifications

Absolute Maximum Ratings

| Parameter | Symbol | Value | Unit |
|------------------------------|--------------|------------|--------------------|
| Reverse voltage | V_R | 20 | V |
| Maximum optical poewer input | $P_{i\ max}$ | 10 | mW |
| Forward current | I_F | 10 | mA |
| Operating temperature | T_{opr} | -40 to +85 | $^{\circ}\text{C}$ |
| Storage temperature | T_{stg} | -40 to +85 | $^{\circ}\text{C}$ |

Electrical and Optical characteristics ($V_R=-5\text{V}$, $T_a=25^{\circ}\text{C}$ unless otherwise noted)

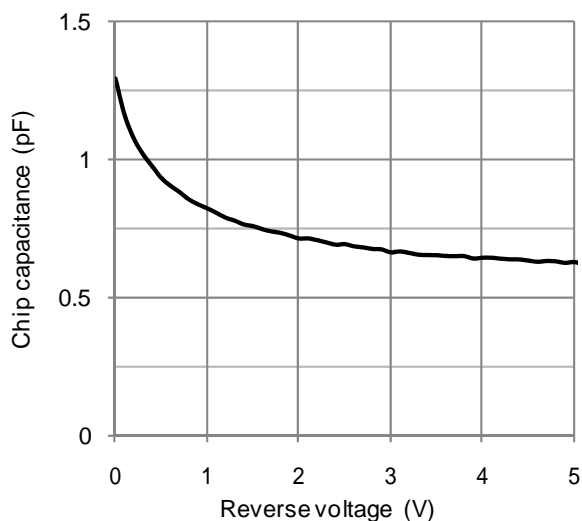
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-------------------|--------|------|------|------|------|---|
| Bandwidth | BW | 0.8 | 1.5 | --- | GHz | $\lambda=1550\text{nm}$, $P_i=-10\text{dBm}$ |
| Responsivity | R | 0.6 | 0.7 | -- | A/W | $\lambda=1310\text{nm}$, $P_i=-10\text{dBm}$ |
| | | 0.7 | 0.8 | -- | | $\lambda=1550\text{nm}$, $P_i=-10\text{dBm}$ |
| Dark Current | I_D | -- | 35 | 300 | pA | |
| Total capacitance | C_t | | 0.85 | 1.2 | pF | $f=1\text{MHz}$ |

Die dimension

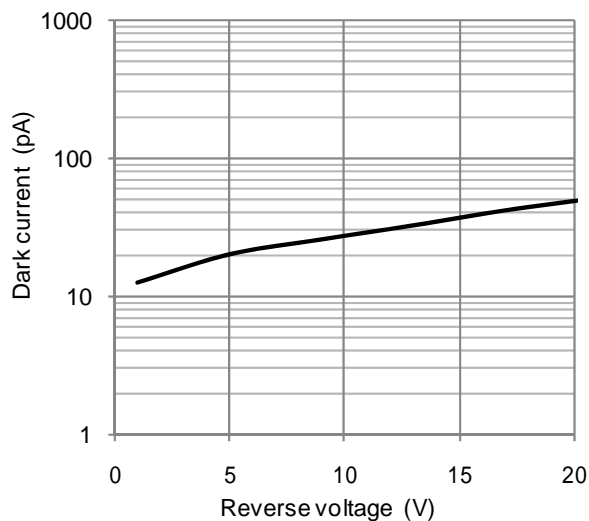
| Parameter | Specification | Torelance | Unit | Note |
|-----------------------|-------------------|-----------|---------------|----------|
| Chip size | 350 x 350 | +/- 25 | μm | |
| Chip height | 150 | +/- 20 | | |
| Photo-detectable area | (x,y) = (100, 80) | +/- 10 | | 1dB down |

Specifications are subject to change without notice.

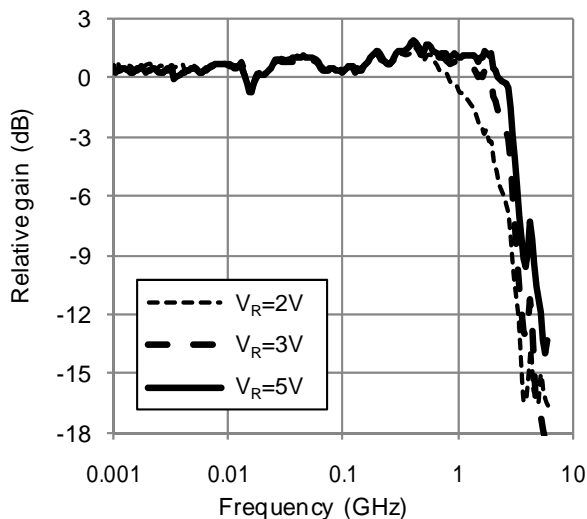
C-V characteristics



Dark current - reverse voltage



Frequency response



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