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Data Sheet

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PIN Photodiode Chip IR

EOPC-1300-0.3

Rev. 03, 2017

| Radiation | Type | Electrodes |
|-----------|--------|--------------|
| infrared | InGaAs | p (anode) up |

| Description: | |
|--------------|--|
| | Broadband photodiode with maximum response in the NIR-region (800-1750 nm) Sensitive area is typical Ø300 µm, chip thickness 200±30 µm, chip size 500 x 500 µm ±30 µm Low dark current and low capacitance |
| | Application: optical power monitor PD |

Maximum Ratings

T_{amb} = 25°C, unless otherwise specified

| Parameter | Symbol | Value | Unit |
|------------------------|-------------------|-------------|------|
| Operating temperature | T _{opt} | -40 to +85 | °C |
| Storage temperature | T _{stor} | -40 to +100 | °C |
| Reverse current | I _R | 2 | mA |
| Reverse voltage | V _R | 20 | V |
| Forward current | I _F | 10 | mA |
| Incident radiant power | Φ _e | 2 | mW |
| ESD | V _{ESD} | 500 | V |

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

| Parameter | Test cond. | Symbol | Min | Typ | Max | Unit |
|-------------------|-----------------------------------|-----------------|-----|-----|-----|------|
| Responsivity | V _R =5 V, λ=1300 nm | S _λ | 0.8 | 1 | | A/W |
| Responsivity | V _R =5 V, λ=1550 nm | S _λ | 0.9 | 1.1 | | A/W |
| Dark current | V _R =5 V | I _D | | 0.3 | 1 | nA |
| Breakdown voltage | I _R =1 µA | V _{BD} | 25 | 35 | | V |
| Capacitance | V _R =5 V, f=1 MHz | C | | 6 | 10 | pF |



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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Fig. 1 Typical Dark Current and Forward Current

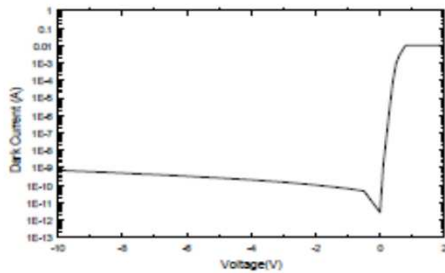


Fig. 2 Typical Photo-Current

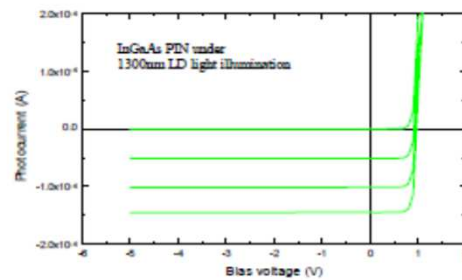


Fig. 3 Typical Breakdown Curve

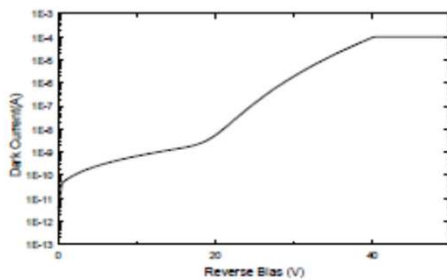


Fig. 4 Typical C-V Curve

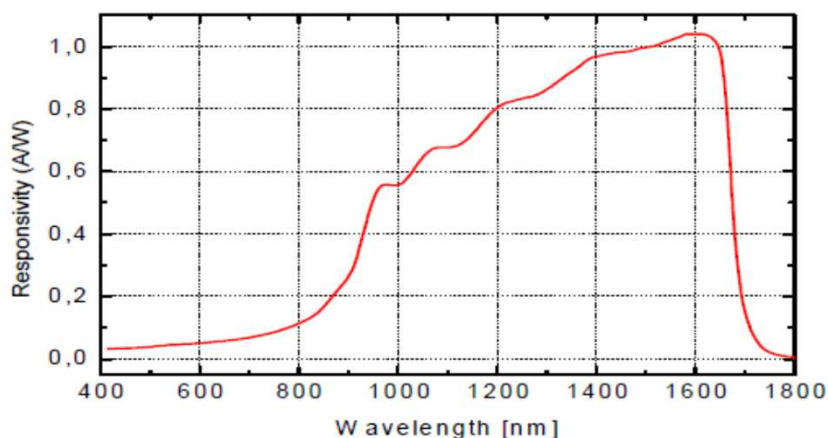
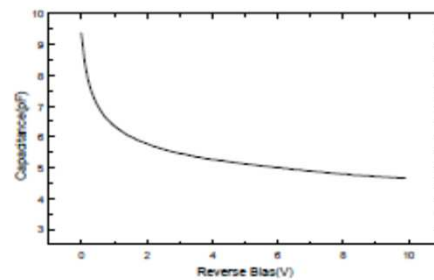


Fig. 5. Typical optical responsivity

Art. No. 123 08



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