

Si Photodiodes KPID020D-H8

Characteristics

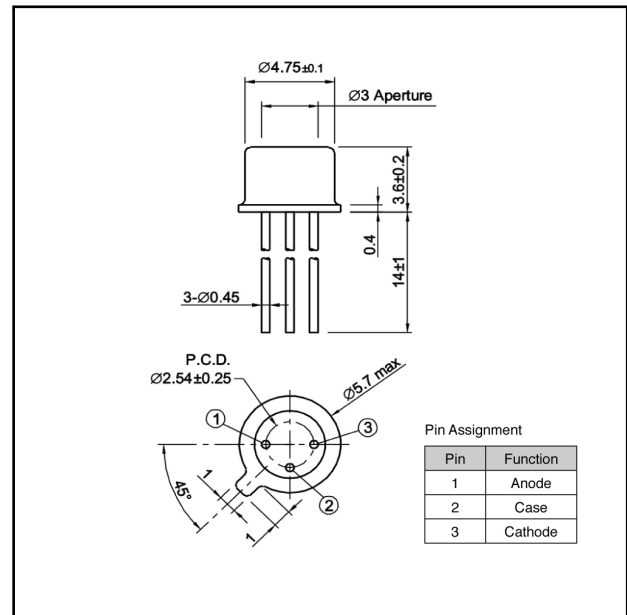
- 2GHz response with 200 μ m active diameter
- 0.4GHz response with 500 μ m active diameter
- Low dark current
- Low voltage operation
- Various package option

Applications

- Short wavelength optical communications
- Optical measurement
- Optical sensors

Package

- TO-CAN



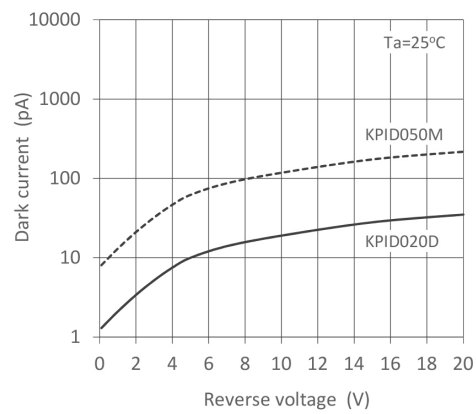
Absolute Maximum Ratings

| Parameter | Symbol | Value | Unit | Conditions |
|-----------------------|-----------|------------|------|------------------------------------|
| Reverse voltage | V_R | 50 | V | - |
| Reverse Current | I_R | 10 | mA | - |
| Forward current | I_F | 1 | mA | - |
| Operating temperature | T_{opr} | -40 to +85 | | Avoid dew condensation |
| Storage temperature | T_{stg} | -40 to +85 | | Avoid dew condensation |
| Soldering temperature | T_{sol} | 260 | | Soldering time less than 5 seconds |

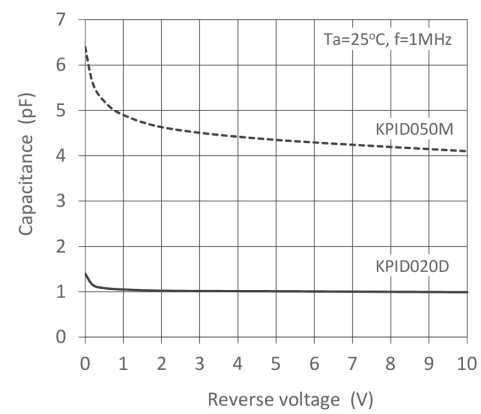
Electrical and Optical characteristics (Ta=25 unless otherwise noted)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|----------------------|--------|------|------|------|---------------|---------------------------------|
| Active area | S | - | 200 | - | μm | - |
| Sensitive wavelength | | 400 | - | 1000 | nm | - |
| Responsivity | R | - | 0.35 | - | A/W | $V_R=3V$ $\lambda=850\text{nm}$ |
| Dark current | I_D | - | 10 | 40 | pA | $V_R=3V$ |
| Total capacitance | C_t | - | 1.2 | 1.6 | pF | $V_R=3V$ $f=1\text{MHz}$ |
| Cutoff frequency | f_c | - | 2 | - | GHz | $V_R=3V$ $R_L=50$ |

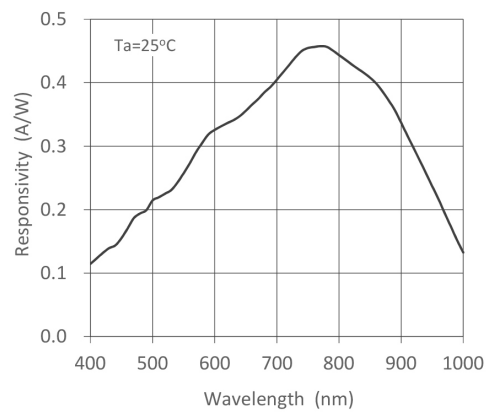
Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



Spectral Responsivity



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1724 Shimotsuboyama, Shimotsuke-shi, Tochigi 323-0194, Japan
TEL: +81-285-39-7950 <https://www.dexerials.jp/en/>