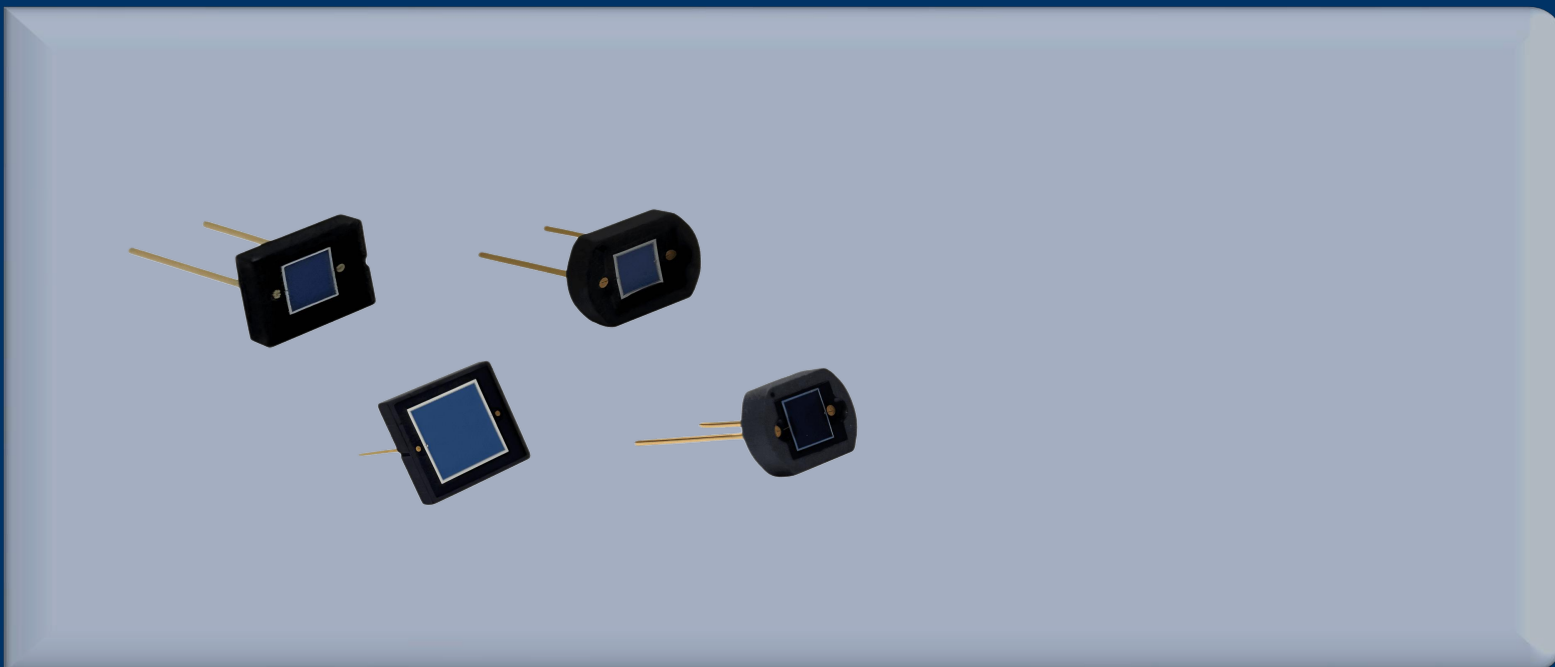


# Photodiodes

## Low Dark Current Silicon PIN Photodiode (DIP package)

High-precision photodetection device based on  
silicon-based PIN structure

- Strong encapsulation adaptability
- Extremely low dark current
- Excellent environmental tolerance



One Platform Many Possibilities

Contact Us [sales@venuslabtech.com](mailto:sales@venuslabtech.com)

Get a Quote



Get Expert Advice  
+65 8099 5547



Visit Us  
[www.venuslabtech.com](http://www.venuslabtech.com)

## Overview

### Introduction:

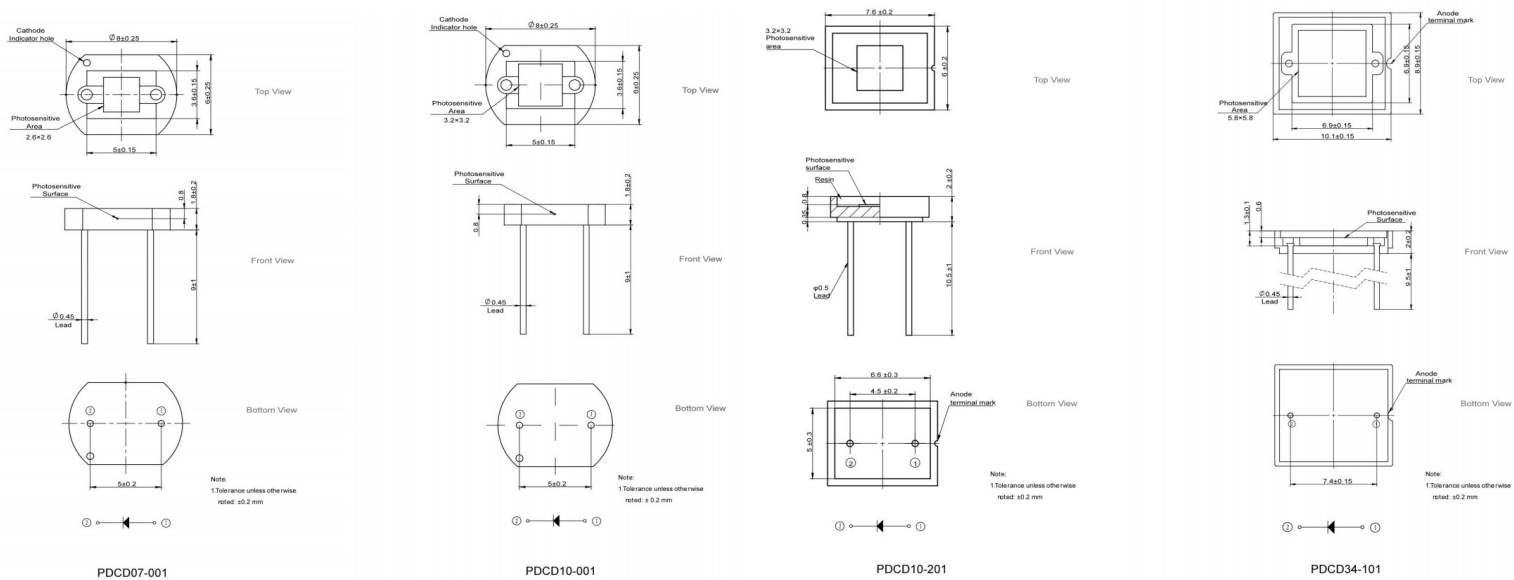
Low dark current Si photodiodes (DIP package) have a spectral response range of 350~1060nm, along with extremely low dark current and low junction capacitance characteristics. They can be widely used in photoelectric measurement instruments, optical analysis equipment, and optical power monitoring scenarios.

Adopting a dual in-line package structure, they are compatible with standard slots of industrial equipment PCB boards and support direct insertion welding. For later maintenance, they can be individually plugged and replaced without desoldering the entire board, which significantly reduces maintenance costs and time, and is suitable for large-scale industrial mass production and equipment iteration.

### Features:

- Extremely low dark current, advantage in weak light detection
- DIP package: industrial adaptation and convenient maintenance
- 350~1060nm wide spectrum, covering multiple scenarios
- Industrial-grade reliability

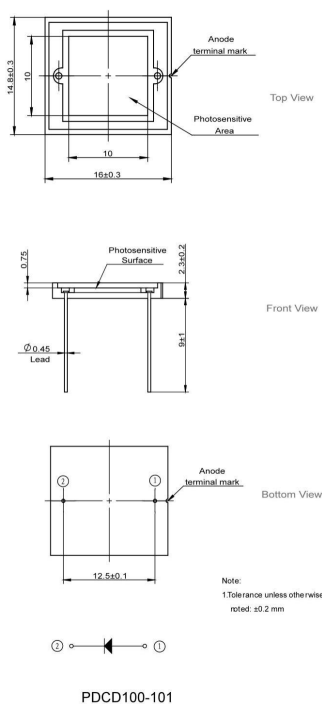
### Dimension:



## Specifications

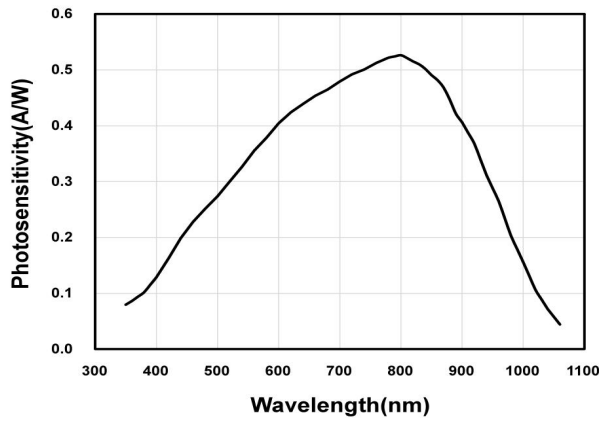
### Common Parameter Specification Table

| Core Parameter Item               | Parameter Value            |
|-----------------------------------|----------------------------|
| Spectral Response Range           | 350~1060 nm                |
| Package Type                      | DIP (Dual In-line Package) |
| Window Material (Default)         | Epoxy Resin (Customizable) |
| Operating Temperature Range       | -20~+80 (No Condensation)  |
| Storage Temperature Range         | -20~+80 (No Condensation)  |
| Soldering Temperature (Withstand) | 260 (Duration <5s)         |
| Reverse Voltage (MAX)             | 20 V                       |
| ESD Protection (HBM Mode)         | 1000 V                     |

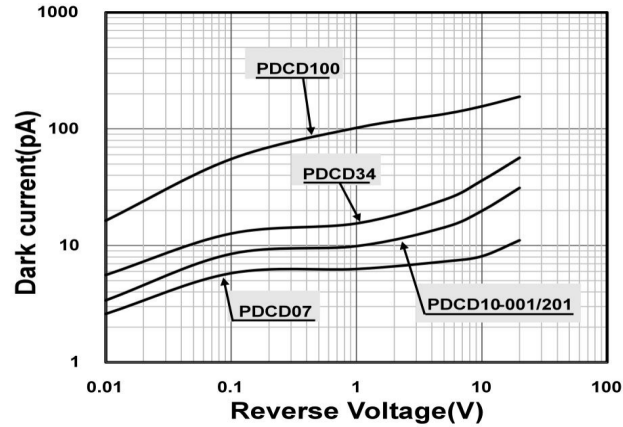


## Applications

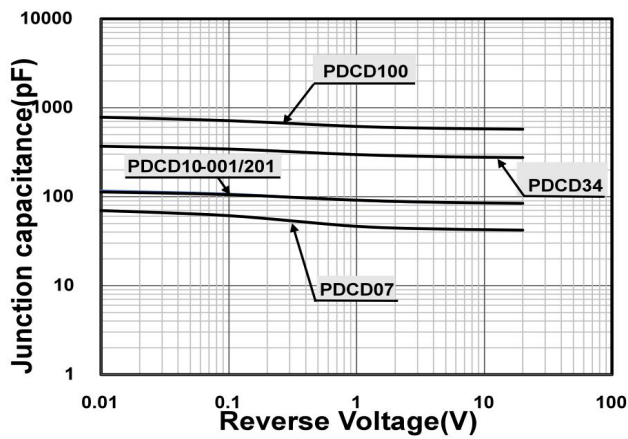
Spectral response



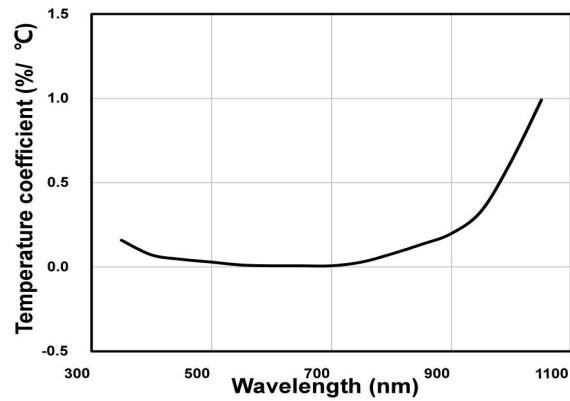
Dark current vs. Reverse voltage



Junction capacitance vs. reverse voltage




Photosensitivity temperature characteristics



## Explore Series

| Model       | Photosensitive Area Size (with Shape) | Rise Time (Typ., $\mu$ s) | Junction Capacitance (Typ., pF) | Shunt Resistance (Min., $\Omega$ ) | Dark Current (Typ./Max., pA) | Equivalent Noise Power (Typ., $W/Hz^2/2$ ) |
|-------------|---------------------------------------|---------------------------|---------------------------------|------------------------------------|------------------------------|--|
| PDCD07-001  | 2.6×2.6mm (Square)                    | 0.15                      | 70                              | 4                                  | 2.5/15                       | $3.9 \times 10^{-15}$                      |
| PDCD10-001  | 3.2×3.2mm (Square)                    | 0.25                      | 115                             | 3                                  | 3.5/20                       | $4.6 \times 10^{-15}$                      |
| PDCD10-201  | 3.2×3.2mm (Square)                    | 0.25                      | 115                             | 3                                  | 3.5/20                       | $4.6 \times 10^{-15}$                      |
| PDCD34-101  | 5.8×5.8mm (Square)                    | 0.9                       | 400                             | 2                                  | 5/30                         | $5.5 \times 10^{-15}$                      |
| PDCD100-101 | 10×10mm (Square)                      | 1.8                       | 800                             | 0.7                                | 15/90                        | $9.6 \times 10^{-15}$                      |

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

[Get a Quote](#)



Get Expert Advice  
+65 8099 5547



Visit Us  
[www.venuslabtech.com](http://www.venuslabtech.com)