VENUSLAB
OPTOELECTRONICS

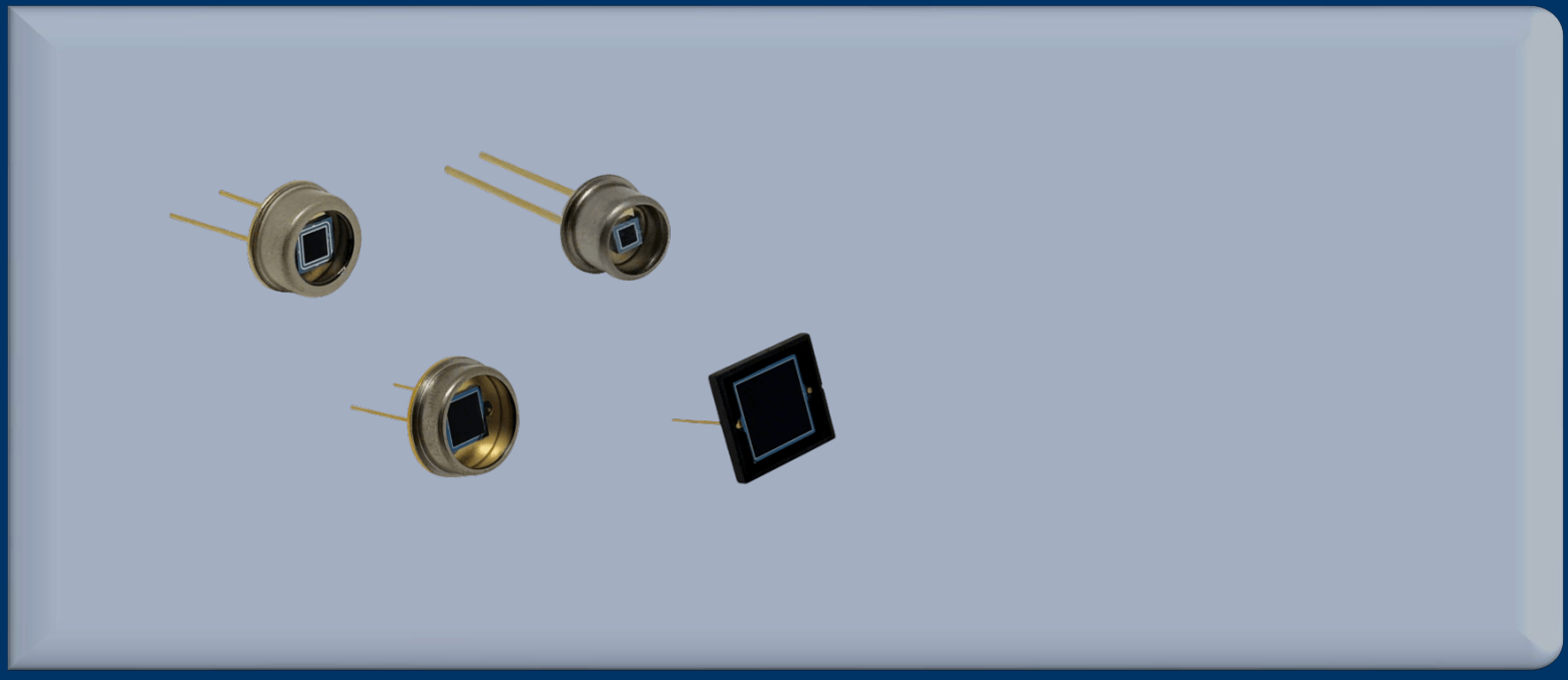
Precision
Meets
Simplicity

Photodiodes

Silicon PIN photodiode in the ultraviolet to near-infrared band

A broad-spectrum photoelectric conversion device whose spectral response covers the ultraviolet to near-infrared bands.

- Accurate broadband response
- Low dark current with PIN structure
- High photoelectric linearity
- Stable environmental adaptability



One Platform Many Possibilities

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Overview

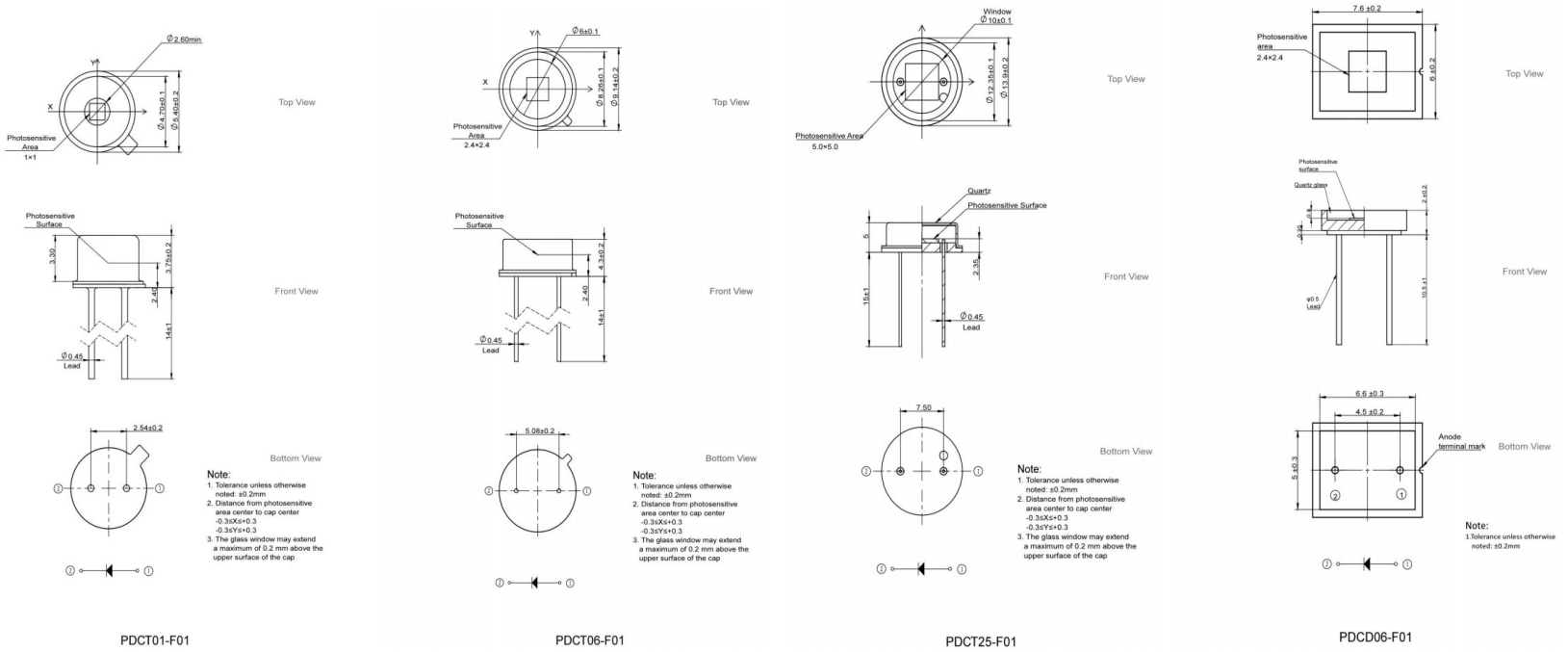
Introduction:

This device has a spectral response range of 190~1100nm, featuring low dark current, high sensitivity, and optimized full-wavelength response from ultraviolet to infrared, and is suitable for optical power detection and optical analysis equipment.
It can achieve efficient and continuous photoelectric conversion in the wide wavelength range from ultraviolet to near-infrared without changing devices. Moreover, the I layer of the PIN junction ensures effective absorption of photons of various wavelengths, with no response gaps or sudden drops in efficiency.

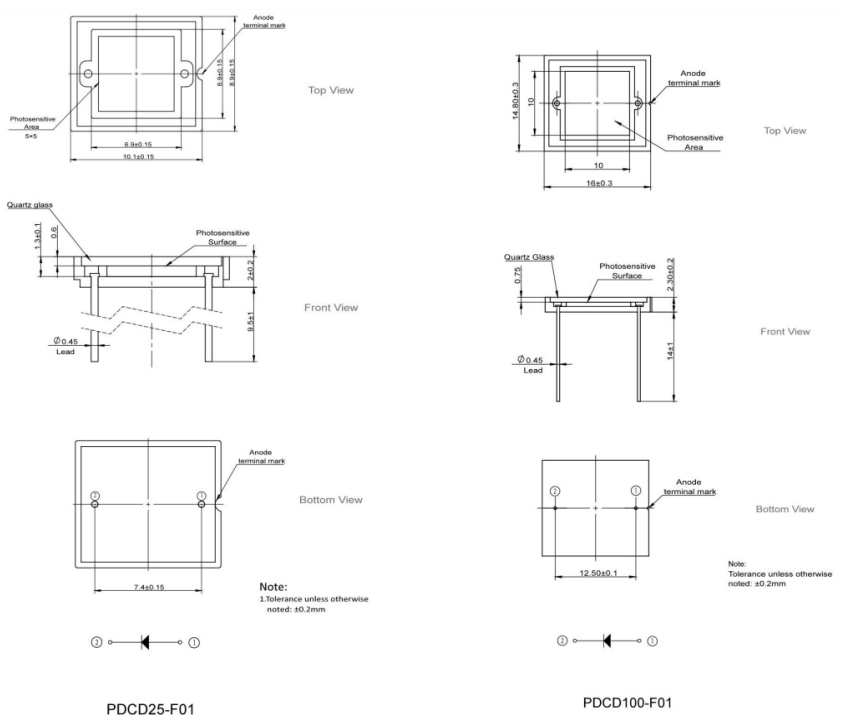
Features:

- Dual-band anti-reflection coating reduces light loss
- Wide-band response with stable performance and no precision error
- Some models come with calibration pins for sensitivity adjustment
- Stable response without deviation across all bands in a wide temperature range
- Low parasitic capacitance ensures stable conversion across all bands

Dimension:



PDCT01-F01 PDCT06-F01 PDCT25-F01 PDCD06-F01



PDCD25-F01 PDCD100-F01

Specifications

Common Parameter Specification Table

Core Parameter Name	Parameter Value
Spectral Response Range (nm)	190~1100
Peak Response Wavelength (nm)	1000
Maximum Reverse Voltage (V)	20
HBM Mode ESD Protection (V)	1000
Window Type	Quartz (Default)
Number of Pins	2pin

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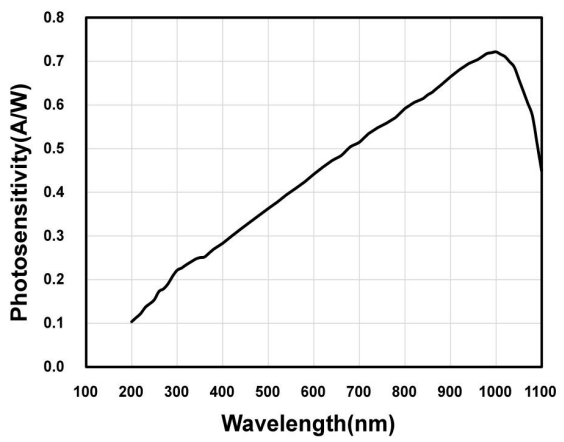
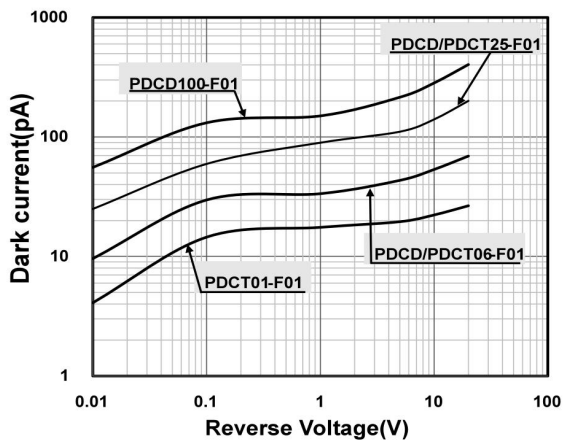
2025 Ver1

Applications

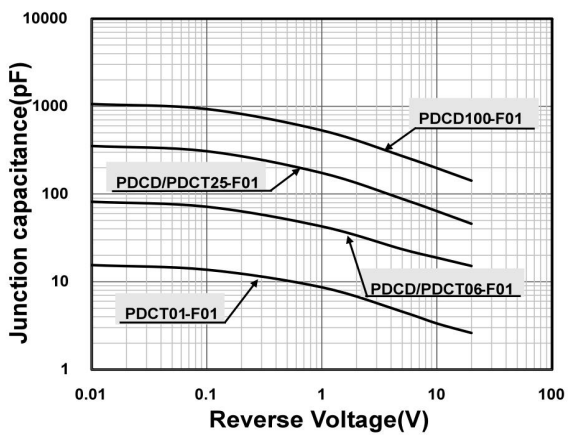
Spectral response



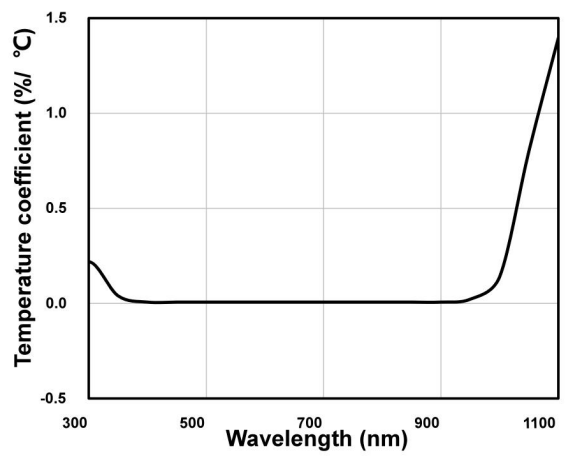
Dark current vs. reverse voltage



Junction capacitance vs. reverse voltage



Photosensitivity temperature characteristics



Explore Series

Model	Dark Current (Max, pA)	Package Type	Junction Capacitance (pF)	Photosensitive Area Size (mm)	Rise Time (μs)	Operating Temperature (°C)
PDCT01-F01	50	TO18	15	1.0×1.0	0.03	-40 to +100
PDCT06-F01	60	TO5	75	2.4×2.4	0.16	-40 to +100
PDCT25-F01	120	TO8	350	5.0×5.0	0.77	-40 to +100
PDCD06-F01	60	DIP	75	2.4×2.4	0.16	-20 to +80
PDCD25-F01	120	DIP	350	5.0×5.0	0.77	-20 to +80
PDCD100-F01	250	DIP	1000	10.0×10.0	2.2	-20 to +80

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