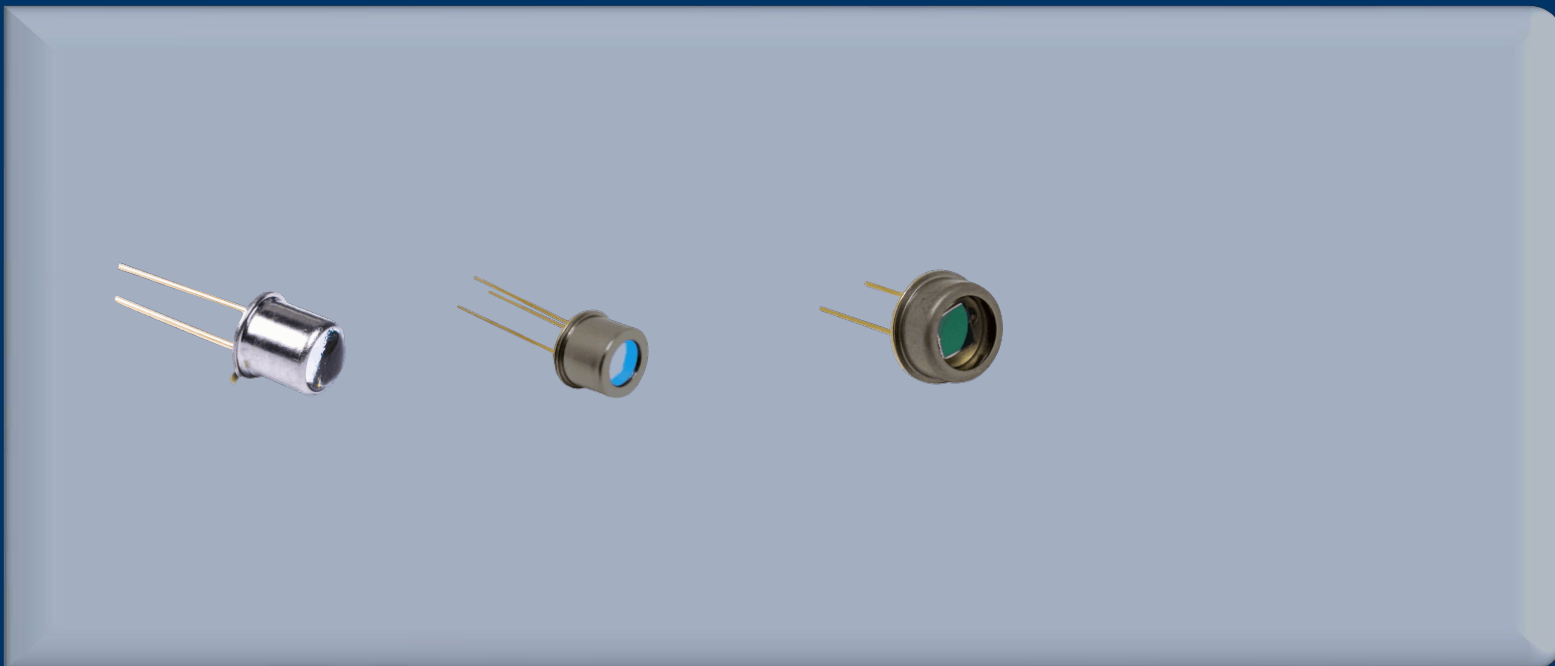


Photodiodes

Near-infrared enhanced silicon PIN photodiode (TO package)

Silicon-based PIN junction near-infrared optimized photoelectric conversion device.

- Highly efficient response in the near-infrared band
- High detection accuracy
- Fast response speed
- Wide scene adaptability



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote



Get Expert Advice
+65 8099 5547



Visit Us
www.venuslabtech.com

Overview

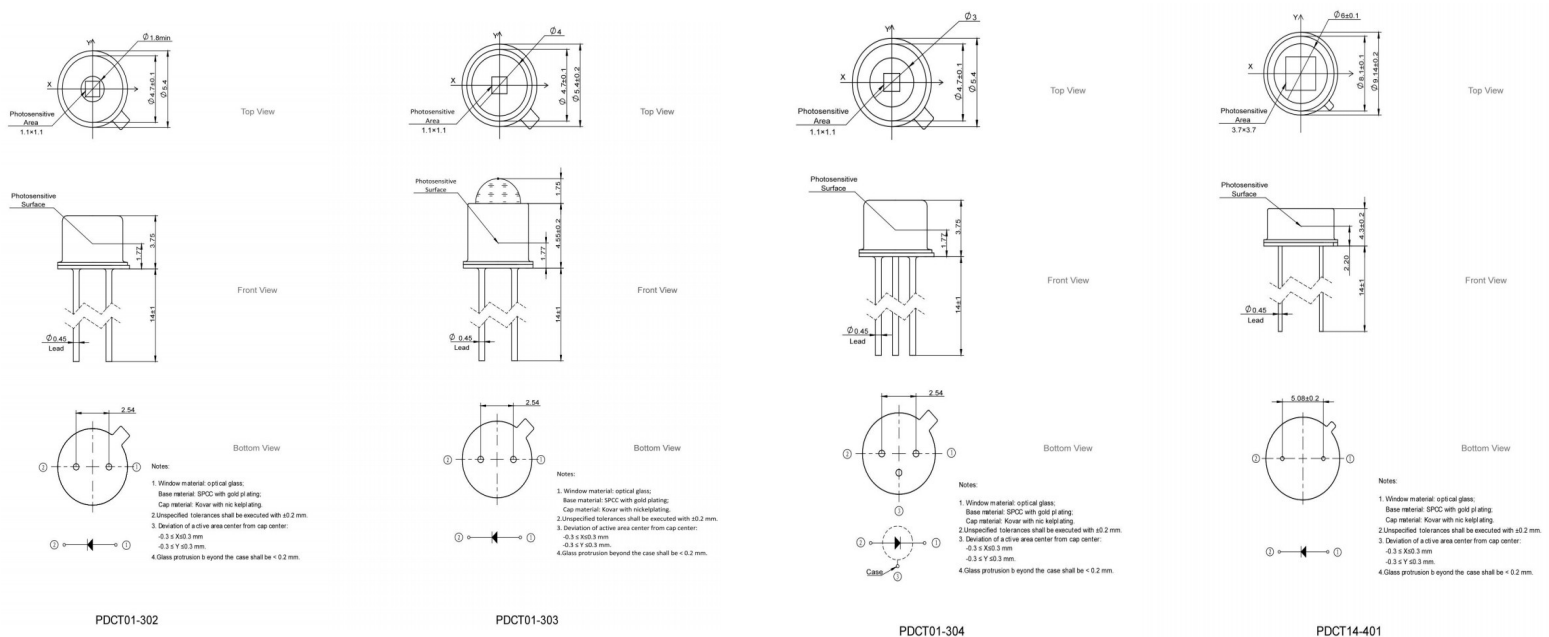
Introduction:

This device features a spectral response range of 350~1100nm, optimized near-infrared wavelength response, extremely low junction capacitance, high response speed, and low dark current characteristics, making it suitable for optical power detection and optical analysis equipment. By virtue of the design of silicon PIN junctions, material doping, and anti-reflection coatings, the absorption and conversion efficiency of near-infrared light is significantly improved, enabling efficient light harvesting.

Features:

- The photoensitive surface is equipped with an anti-reflection coating.
- The dark current temperature drift coefficient is small.
- The linearity between photocurrent and near-infrared light intensity is excellent.
- Supports shielding or gating function expansion.

Dimension:



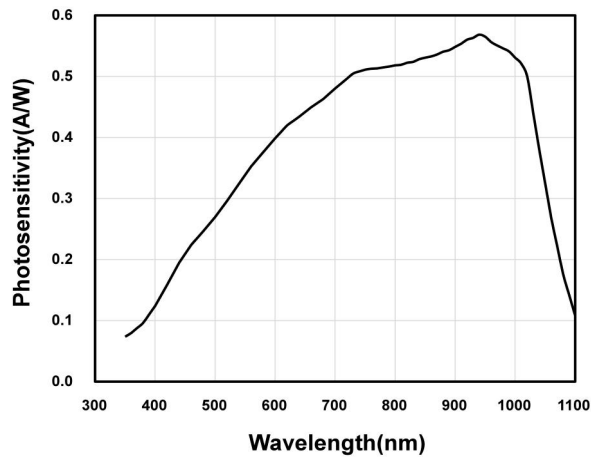
Specifications

Common Parameter Specification Table

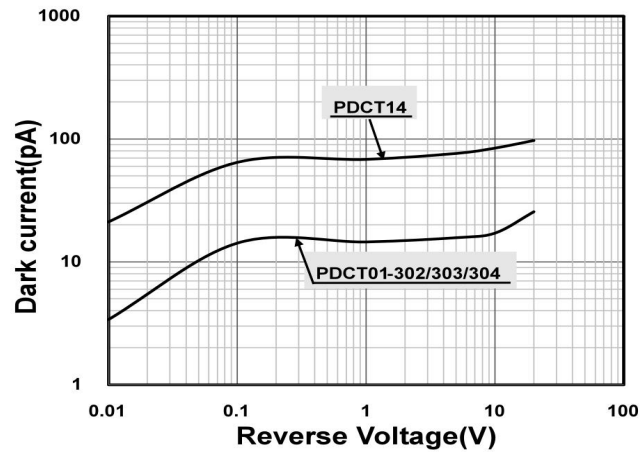
Parameter Name	Parameter Value
Core Structure Type	NIR-Enhanced Silicon PIN Photodiode
Spectral Response Range	350~1100nm
Maximum Reverse Voltage (VR MAX)	20V
ESD (HBM Mode)	1000V
Soldering Temperature (Tsol)	260 (PDCT01-302: <10s, other models compatible with this standard)
Storage Temperature (Tstg)	-55~+125 (No Condensation)
Operating Temperature (Topr)	-40~+100 (No Condensation)

Applications

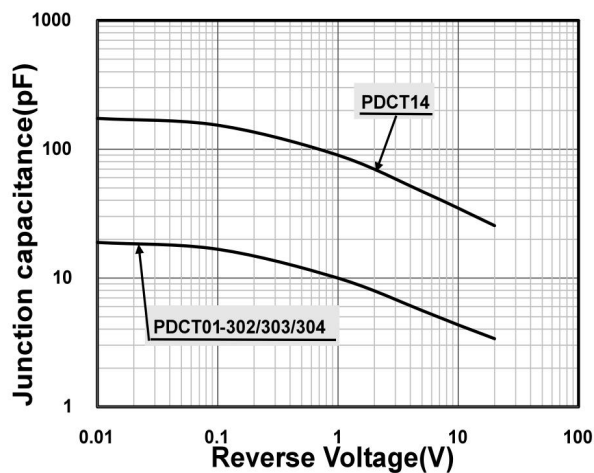
Spectral response



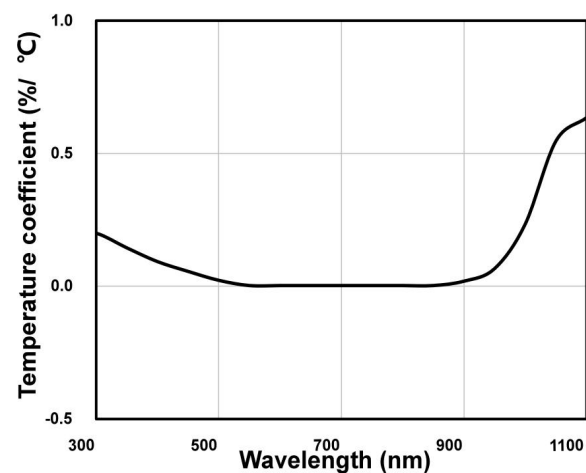
Dark current vs. reverse voltage



Junction capacitance vs. reverse voltage




Photosensitivity temperature characteristics



Explore Series

Model	Photosensitive Area Size	Package Type	Window Material/Type	Number of Pins	Maximum Dark Current (ID, VR=10mV)	Junction Capacitance (Cj, VR=0V, f =100kHz)
PDCT01-302	1.1×1.1mm	TO18	Optical Glass (Flat Window)	2pin	5pA (Max)	20pF
PDCT01-303	1.1×1.1mm	TO18	Large Ball Lens	2pin	5pA (Max)	20pF
PDCT01-304	1.1×1.1mm	TO18	Optical Glass (Flat Window)	3pin	5pA (Max)	20pF
PDCT14-401	3.7×3.7mm	TO5	Optical Glass (Default Flat Window)	2pin	25pA (Max)	180pF

 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