

# Photoresistor vs photodiode

## Photoresistor vs photodiode

This page compares photoresistor vs photodiode and mentions difference between photoresistor and photodiode. It covers advantages and disadvantages of photoresistor and photodiode.

**Main Differences Between Photoresistor and Photodiode.** Definition. Photoresistor "LDR" is a type of variable resistor whose resistance varies with the intensity of light; Photodiode is a type of diode that generates an electrical current with incident light. LDR (photoresistor) is a passive device that does not convert light energy but ...

When it comes to choosing between photoresistors and photodiodes, it all depends on the specific application. If you're looking for a sensor that can detect changes in light intensity, then a photoresistor may be the better choice. On the other hand, if you need a more accurate and sensitive sensor, then a photodiode would be the way to go.

In this article, we delve into the characteristics of photodiodes and photoresistors, comparing their sensitivity, response time, and spectral response to shed light on their respective strengths and applications.

The photoresistor is a special resistor made of a semiconductor material such as a vulcanization barrier or a selenide barrier, and its working principle is based on the internal photoelectric effect. The stronger the light, the lower the resistance.

Learn how photodiode and photoresistor (LDR) are different types of light sensors with different principles, structures, and functions. Compare their characteristics, a...

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Introduction: •It is a passive component which varies its resistance in response to the light. •It is a disc shaped component with two leads as shown in the figure-1. •When the light falls on the surface of the disc, resistance between the leads diminish (or reduce) darkness, resistance as high as 10 MOhms and in bright light, resistance as low as 500 Ohms can be achieved. •It is a passive component with no polarity. •It represents equal resistance in both the directions and it can be used either with AC or DC.

One of the applications of photoresistor is shown in the following circuit. Here it acts as variable resistor based on light intensity falling on it. The resistance of a photoresistor decreases with increasing incident light intensity. In other words, it exhibits photoconductivity. There are various circuit symbols of the photoresistor. Photoresistors of various sizes are available ranging from smaller one (5 mm in diameter) to larger one (25 mm in diameter) can be used to generate variable voltage.

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A photodiode is a type of photodetector capable of converting light into either current or voltage. The device operates in reverse bias and electric field developed across the p-n junction sweeps the mobile charge carriers to their respective majority sides. Hence a depletion region is formed. This barrier stops the flow of majority carrier and supports the flow of only minority carriers and hence leakage current flows.

Following table mentions difference between photoresistor and photodiode.

difference between OFDM and OFDMA Difference between SC-FDMA and OFDM Difference between SISO and MIMO Difference between TDD and FDD FDMA vs TDMA vs CDMA FDMA vs TDMCDMA vs GSM

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Web: <https://www.kary.com.pl/contact-us/>

Email: [energystorage2000@gmail.com](mailto:energystorage2000@gmail.com)

WhatsApp: 8613816583346

