Photoresistor

A photoresistor or light dependent resistor or cadmium sulfide (CdS) cell is a resistor whose resistance decreases with increasing incident light intensity. It can also be referenced as a photoconductor.

A photoresistor is made of a high resistance semiconductor. If light falling on the device is of high enough frequency, photons absorbed by the semiconductor give bound electrons enough energy to jump into the conduction band. The resulting free electron (and its hole partner) conduct electricity, thereby lowering resistance.

Applications:

Auto flash for cameras
Industrial Control
Photoelectric Control
Photo switch
Room light control
Photo lamp
Photo musical I. C.
Electronic toys

<table>
<thead>
<tr>
<th>Model</th>
<th>Vmax (VDC)</th>
<th>Pmax (mW)</th>
<th>Ambient Temp (°C)</th>
<th>Spectral Peak (nm)</th>
<th>Photo Resistance (10Lx) (KΩ)</th>
<th>Dark Resistance (MΩ)min</th>
<th>μmin</th>
<th>ResponseTime (ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGM5537</td>
<td>150</td>
<td>100</td>
<td>-30 ~ +70</td>
<td>540</td>
<td>16 ~ 50</td>
<td>2.0</td>
<td>0.7</td>
<td>20</td>
</tr>
</tbody>
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