Photoresistor



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

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

Applications:



Model	Vmax (VDC)	Pmax (mW)	Ambient Temp (°C)	Spectral Peak (nm)	Photo Resistance (10Lx) (KΩ)	Dark Resistance (MΩ)min	γ min	ResponseTime (ms)	
								Rise	Decay
PGM5537	150	100	-30 ~ +70	540	16 ~ 50	2.0	0.7	20	30

