



## GL55 Series Photo Resistor (LDR)

The Cadmium Sulfide (CdS) or Light Dependent Resistor (LDR) whose resistance is inversely dependent on the amount of light falling on it, is known by many names including the photo resistor, photoconductor, photoconductive cell, or simply the photocell. The photo-resistor finds many uses as a low cost photo sensitive element use in photographic light meters as well as in other applications such as smoke, flame and burglar, detectors, card readers and lighting controls for street lamps.



SKU: [SSR1021](#)

### **Brief Data:**

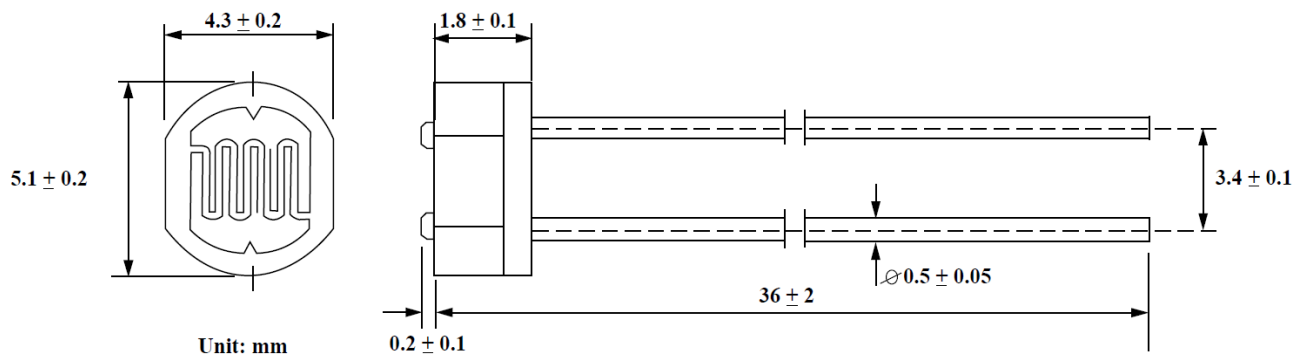
- Light Resistance Range: 2~20K $\Omega$ . Refer to Table 1.
- Dark Resistance at 0 Lux: 1M $\Omega$  Min.
- Peak Spectral Response: 540nm.
- Typical Fall Time: 55ms.
- Typical Rise Time: 45ms.
- Operating Voltage Vmax: 100V.
- Power Rating Pmax: 100mW.
- Resistor Material: CdS (cadmium sulfide).
- Number of Pins: 2-pin Through Hole.
- Package Type: TO-18 Epoxy Resin.

**Table-1:**

Model No	Photo Resistance (10Lux) (K $\Omega$ )	Dark Resistance (M $\Omega$ )min
GL5506	2~6	0.15
GL5516	5~10	0.20
GL5528	8~20	1.0

**Mechanical Dimension:**

Unit mm

**Terminology****• Light Resistance :**

Measured at 10 lux with standard light A (2854K-color temperature) and 2hr. preillumination at 400-600 lux prior testing.

**• Dark Resistance :**

Measured at 10th seconds after closing 10 lux.

**• Gamma characteristic :**

Under 10 lux and 100 lux and given by  $\gamma = \log(R_{10}/R_{100}) / \log(100/10) = \log(R_{10}/R_{100})$   
 $R_{10}$ ,  $R_{100}$ : resistance at 10 lux and 100 lux.  
 The tolerance of  $\gamma$  is  $\pm 0.1$ .

**• Pmax :**

Max. power dissipation at ambient temperature of 25°C. At higher ambient temperature, the maximum power permissible may be lowered.

**• Vmax :**

Max. voltage in darkness that may be applied to the device continuously.

**• Spectral peak :**

Spectral sensitivity of photoresistors depends on the wavelength of light they are exposed to and in accordance with figure 'Spectral Response'.  
 The tolerance of spectral peak is  $\pm 50$ nm.

