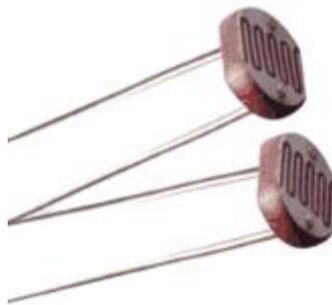
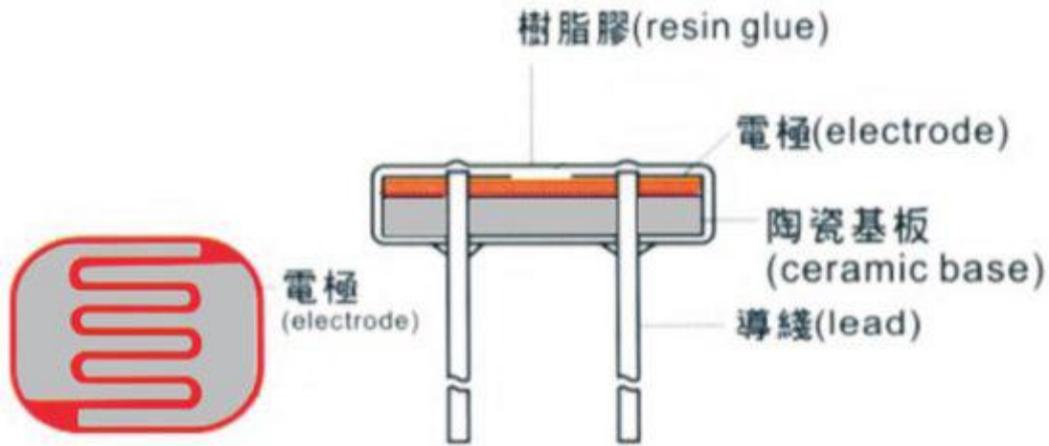


## CDS



### Type: GL5537 CDS

The LDR SENSOR is a resistor made of a semiconducting material whose electrical conductivity changes with changes in light intensity. Using this feature, LDR sensor of different shapes and light-receiving areas are made. LDR sensor is widely used in toys, lamps, cameras and other industries.



### ● Performance and Features

- |                     |                               |
|---------------------|-------------------------------|
| Epoxy encapsulation | Good reliability              |
| Small volume        | High sensitivity              |
| Fast response       | Good spectral characteristics |

### ● Application

- |                      |                       |
|----------------------|-----------------------|
| Camera auto metering | Photoelectric control |
| Indoor Light Control | Alarm system          |
| Industrial control   | Light control switch  |
| Light control lamp   | Electronic toy        |

### ● Models and specification

SPEC	Model	MAX	MIN	Ambient	Spec	Light	Dark	$\gamma$ 100	Response	Lux
V1.1										

	Voltage VDC	Consumption mw	Temperature (°C)	Irradiance Peak nm	Resistance 10Lux (KΩ)	Resistance (MΩ)	10	Time(ms)		Fig.
								Up	Down	
GL5537	150	100	-30~+70	540	28-33	2	0.6	30	30	4

### ● Test Conditions

Maximum applied voltage: the maximum voltage that can be continuously applied to the component in the dark;

Dark resistance: the resistance value at the 10th second after turning off the 10Lux light;

Maximum power consumption: The maximum power consumption when the ambient temperature is 25° C;

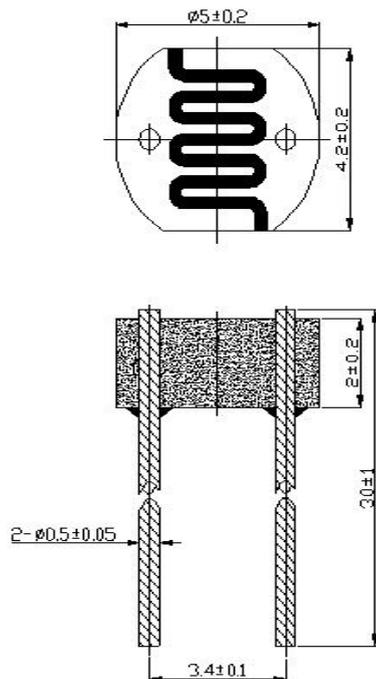
Bright resistance: After irradiating with 400-600Lux light for 2 hours, the test value under standard light source (color temperature 2856K) 10Lux light;

$\gamma$  value: The logarithm of the ratio of the standard resistance value under 10Lux illumination and 100Lux illumination.

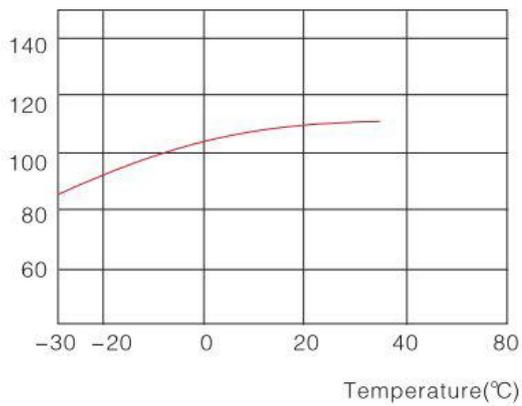
$$\gamma = \text{Lg}(R_{10}/R_{100})/\text{Lg}(100/10) = \text{Lg}(R_{10}/R_{100})$$

R10 and R100 are the resistance values under 10Lux and 100Lux illumination respectively (the tolerance of  $\gamma$  is  $\pm 0.1$ )

### ● Outline dimension and main characteristic curve

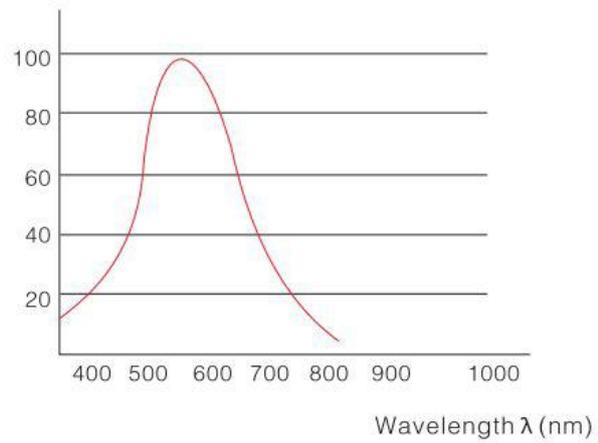


Relative Resistance(%)  
電阻變化率(%)



Temperature-Property 溫度特性曲線

Relative Response(%)  
相對靈敏度(%)



Spectrum Response Characteristic 光譜回應特性曲線

● Illuminance-resistance characteristic curve

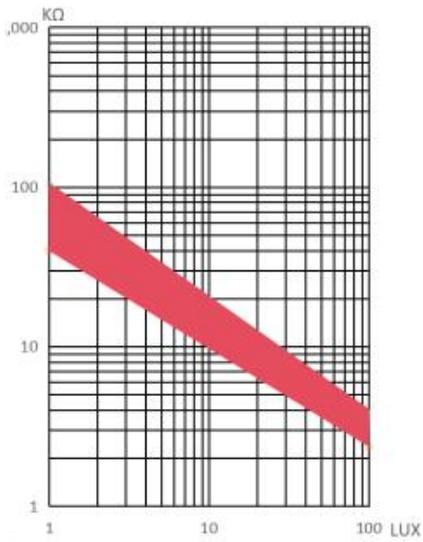


Fig.3

● Application



## ● Packaging and Precautions

- Small package of 500pcs, large package of 2000pcs;
- Avoid storing the photoresistor in a humid and high temperature environment;
- It should be noted that the recommended lead soldering is  $\geq 4\text{mm}$  from the ceramic base, and the soldering temperature should be completed within 3 seconds at  $260^{\circ}\text{C}$  --  $280^{\circ}\text{C}$ . Acting on pins cannot be re-soldered.