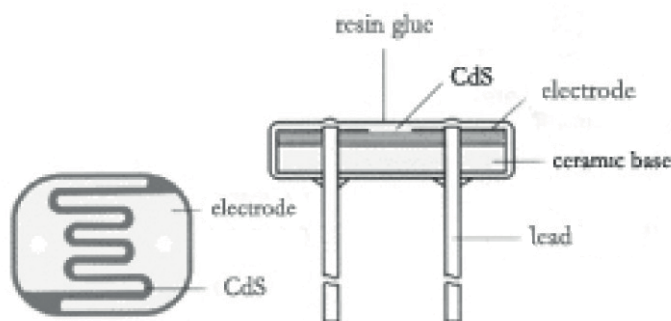


This device consists of a resistor which is made of semiconductor material whose conductance changes with variations in luminance. The device can be manufactured with different figures and illuminated areas. Photoresistors are widely used in many industries, such as toys, lamps, cameras, etc.



## Schematic drawing



## Performance and features

Coated with epoxy	Good reliability
Small volume	High sensitivity
Fast response	Good spectrum characteristic

## Typical applications

Camera automatic photometry	Photoelectric control
Lighting control	Annunciator
Industrial control	Light control switch
Light control lamp	Electronic toy

## Types and specification

Specification	Type	Maximum voltage	Maximum power	Environmental temperature	Spectrum peak value
Φ5 Series	GL5528	150	100	-30~+70	540

Specification	Light resistance (10Lux) (KΩ)	Dark resistance (MΩ)	$\gamma_{10}^{100}$	Response time (ms)		Illuminance resistance Fig. No.
				Increase	Decrease	
Φ5 Series	10-20	1	0.6	20	30	3

## Test conditions

### Maximum external voltage:

Maximum voltage to be continuously given to component in the dark.

**Dark resistance:** Refer to the resistance ten seconds after the 10Lux light is shut up.

### Maximum power consumption:

Maximum power at the environmental temperature 25°C.

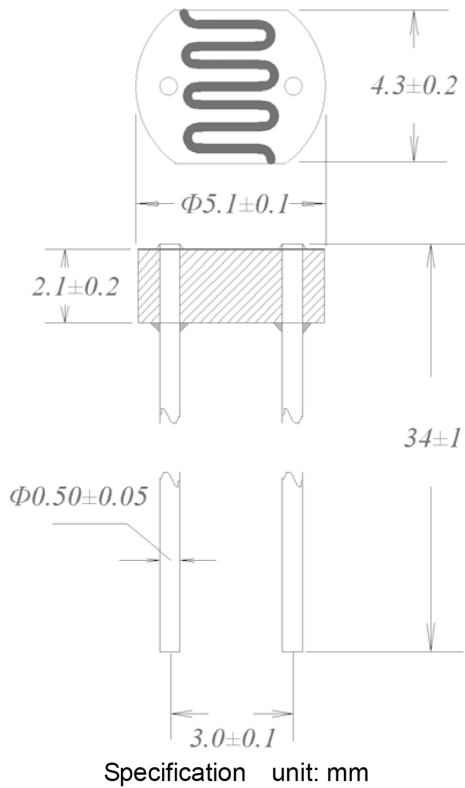
**Light resistance:** Irradiated by 400-600Lux light for two hours, then test with 10Lux under standard light source A (as colour temperature 2856K).

**γ value:** Logarithm of the ratio of the standard resistance value under 10Lux and that under 100Lux.

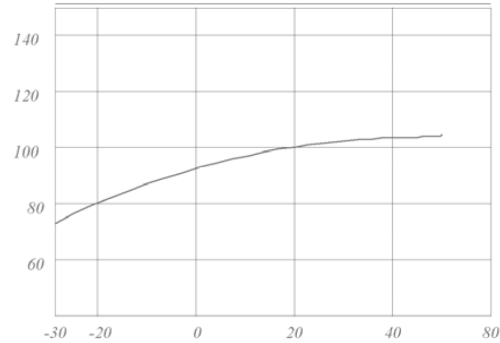
$$\gamma = \frac{\text{Lg}(R_{10}/R_{100})}{\text{Lg}(100/10)} = \text{Lg}(R_{10}/R_{100})$$

R10, R100 are the resistances under 10Lux and 100Lux respectively.

## Main Characteristics Curve and Dimensions

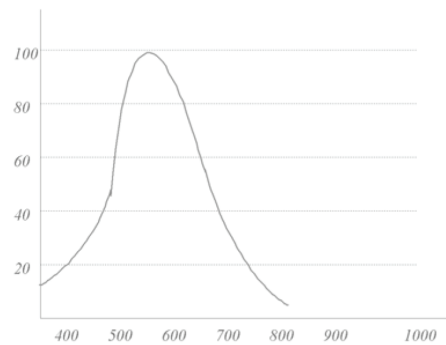


Relative Resistance (%)



Temperature (°C)  
Temperature-Property

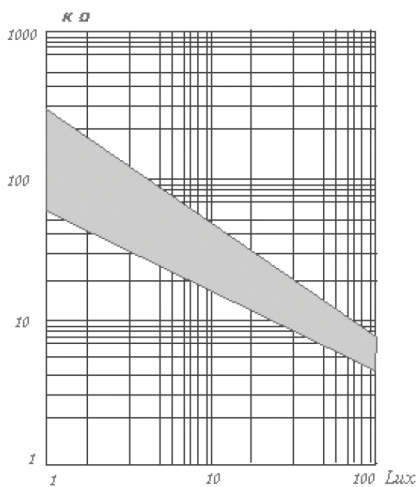
Relative Response (%)



Wavelength λ (nm)

Spectrum Response Characteristic

## Illuminance-Resistance Characteristics Curve



## Packing and Precaution

This product is packed with the environmental protection material. Avoid high temperature and humidity for storing.

Soldering should be completed in the shortest possible time.

It is recommended that the soldering should keep 4mm away from ceramic substrate.