LDR SENSOR

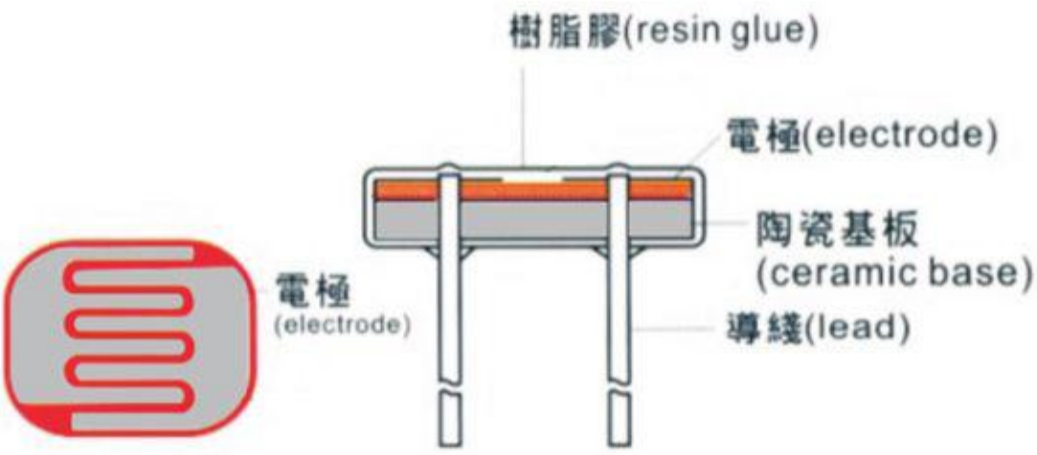


Type: GL5 Series

LDR SENSOR

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.

Schematic



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 Voltage VDC	MIN Consumption mw	Ambient Temperature （℃）	Spectral Peak nm	Light Resistance 10Lux (KΩ)	Dark Resistance （MΩ）	γ 100 10	Response Time(ms)		Lux Fig.
									Up	Duan	
Ø5 GL55 **series**	GL5516	150	90	-30～+70	540	5-10	0.5	0.5	30	30	2
	GL5528	150	100	-30～+70	540	10-20	1	0.6	30	30	3
	GL5537-1	150	100	-30～+70	540	20-30	2	0.6	30	30	4
	GL5537-2	150	100	-30～+70	540	30-50	3	0.7	30	30	4
	GL5539	150	100	-30～+70	540	50-100	5	0.8	30	30	5
	GL5549	150	100	-30～+70	540	100-200	10	0.9	30	30	6

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;

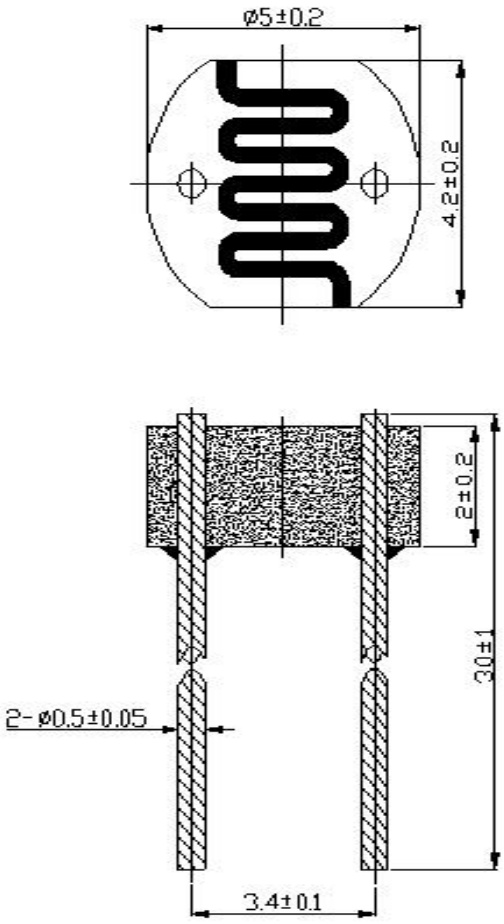
Bright resistance: After irradiating with 400-600Lux light for 2 hours, the test value under standard light source (color temperature 2856K) 10Lux light;

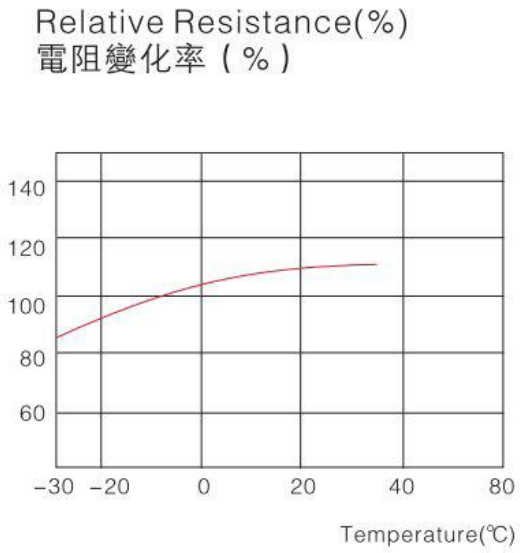
γ value: The logarithm of the ratio of the standard resistance value under 10Lux illumination and 100Lux illumination.

γ = Lg (R10/R100)/Lg (100/10) =Lg(R10/R100)

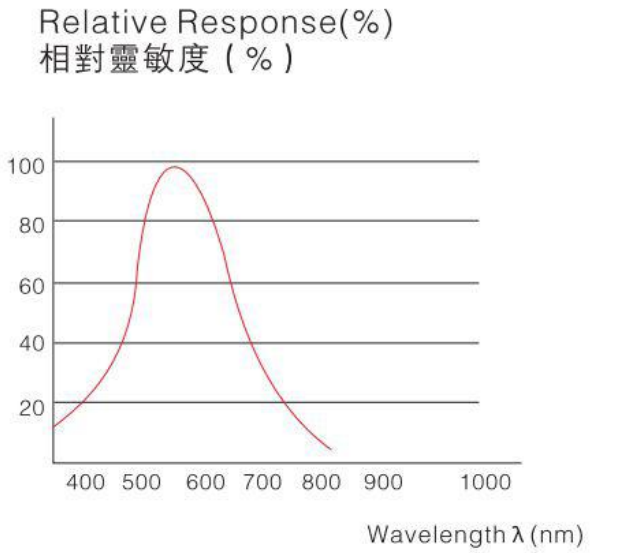
R10 and R100 are the resistance values under 10Lux and 100Lux illumination respectively (the tolerance of γ is ±0.1)

Outline dimension and main characteristic curve





Temperature–Property 温度特性曲綫



Spectrum Response Characteristic 光譜回應特性曲綫

Illuminance-resistance characteristic curve

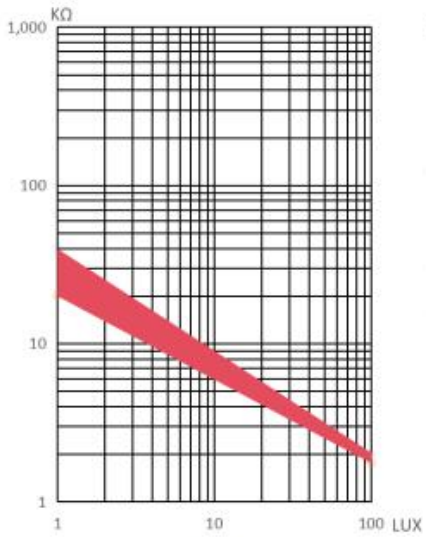


Fig.1

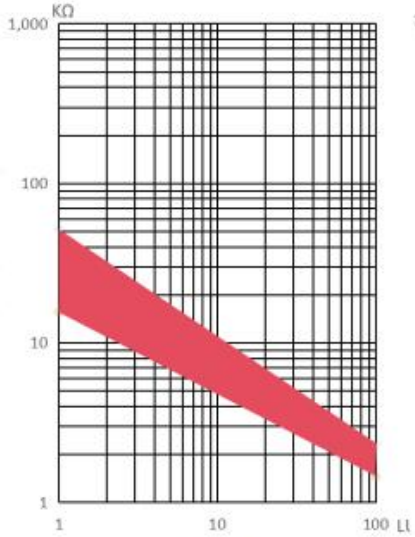


Fig.2

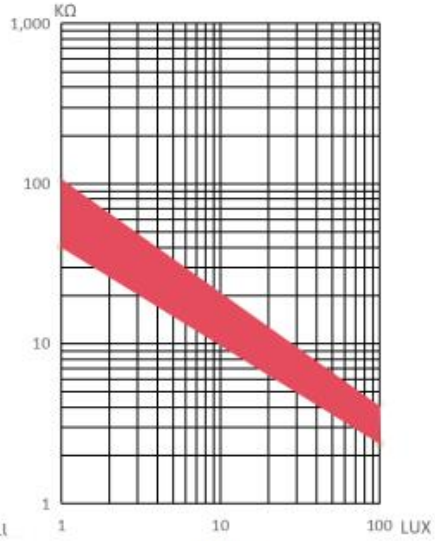


Fig.3

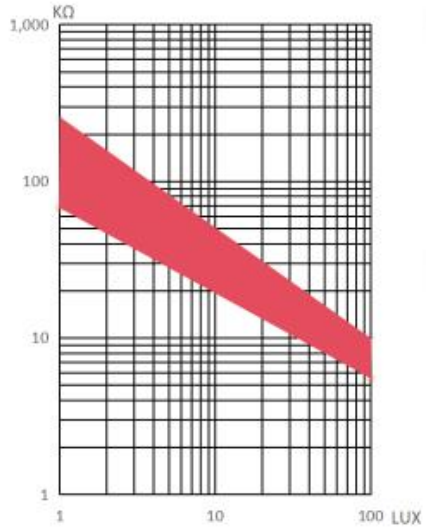


Fig.4

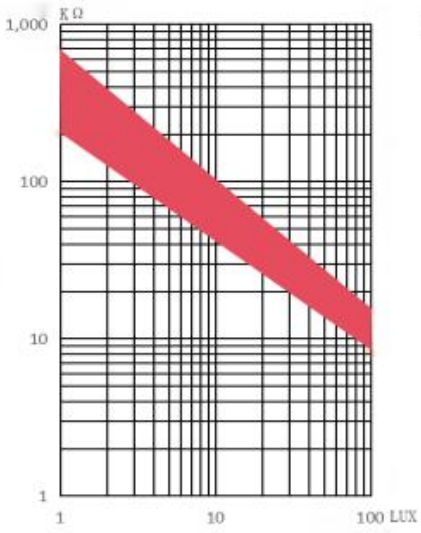


Fig.5

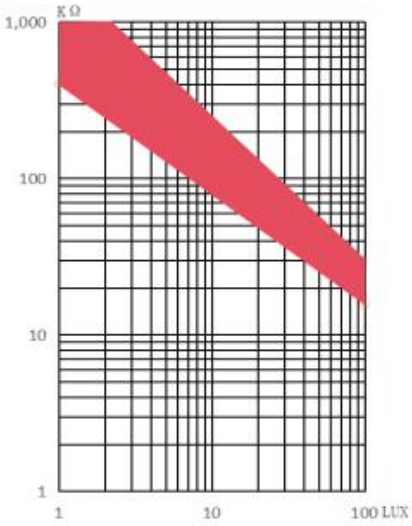


Fig.6

Application