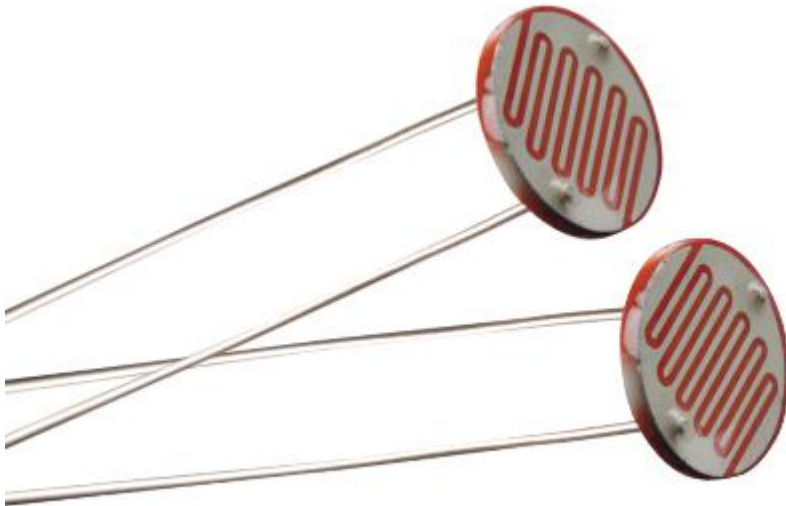


Specification



Name: Photoresistor

Model: GM125 Series

12mm Plastic Coated LDR Light Dependent Resistor

GM12528 10-20K For Light Control

Photoresistor is made of a kind semiconductor material and the conductivity has the linear changes with the illuminance change. The photoresistor was widely used in the toys, lights and camera etc.

Structure Diagram



Performance and Characteristics

Coated with epoxy, good reliability, small volume, high sensitivity, quick response; good spectrum characteristic.

Application

Camera automatically metering Electric control Interior light control Alarm
 Industrial control Light-controlled switch Light-controlled light Electronic toys.

Specification

Name	Model	Max. Voltage VDC	Max. Power mw	Environment Temperature (°C)	Spectrum Peak nm	Light Resistance (10Lux) KΩ	Dark Resistance ≥MΩ	γ^{10010}	Response Time (ms)		Illuminance Resistance Characteristic
									Increase	Decrease	
φ12 Series	GM12516	250	200	-30~+70	560	5-10	1	0.6	30	30	2
	GM12528	250	200	-30~+70	560	10-20	2	0.6	30	30	2
	GM12537-1	250	200	-30~+70	560	20-30	3	0.7	30	30	3
	GM12537-2	250	200	-30~+70	560	30-50	5	0.7	30	30	3
	GM12539	250	200	-30~+70	560	50-100	8	0.8	30	30	4

Test Condition

Max. External Voltage: The max. voltage can be consistently imposed in the components in darkness.

Dark Resistance: The resistance which is get from closed the 10 lux light for 10 seconds.

Max. Power: When the environment temperature is 25°C using the biggest power

Light Resistance: The resistance which is get after 400-600lux light for 2 hours, test with the standard light (CCT: 2854K) 10 lux get the value.

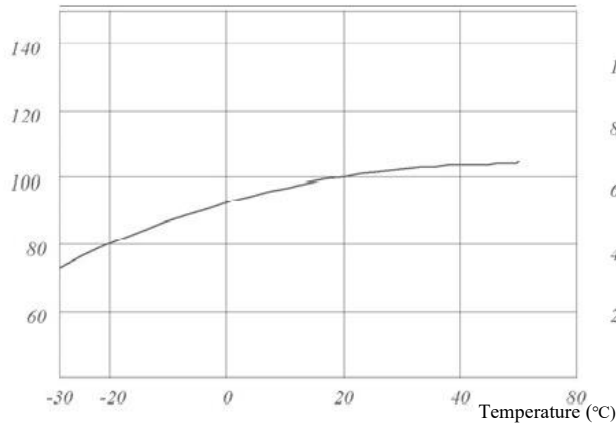
Γ Value: The ratio gets from the standard resistance in 10 lux illuminance and 100lux illuminance's rate.

$$\gamma = \frac{\text{Lg}(R10/R100)}{\text{Lg}(100/10)} = \text{Lg}(R10/R100)$$

R10, R100 the resistance value in 10lux and 100 lux respectively. (γ's tolerance is ±0.1)

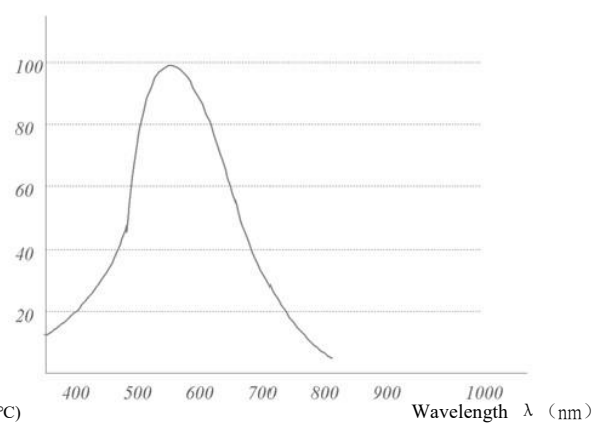
The Main Characteristic Curve

Resistivity Change (%)



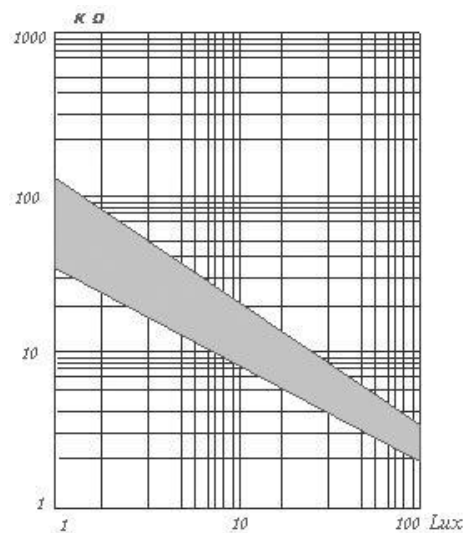
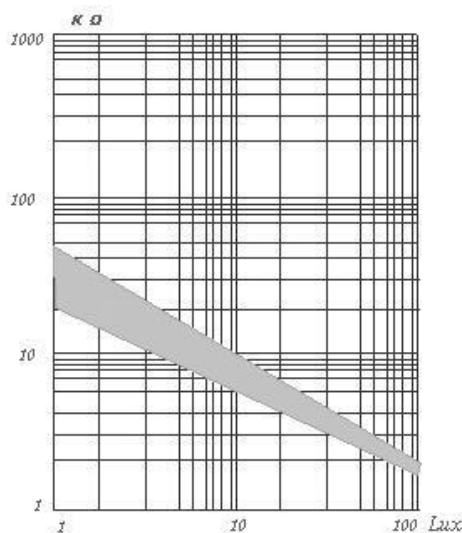
Temperature Characteristic,

Relative Sensitivity (%)

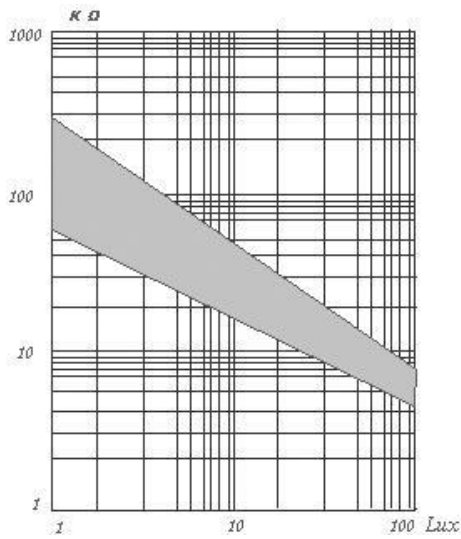


The Spectral Response

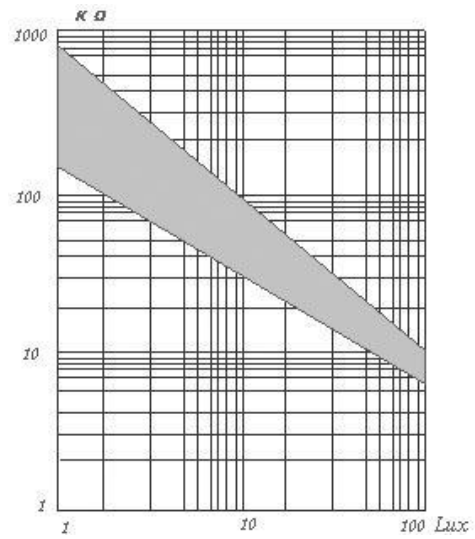
Illuminance- the Resistance Characteristic Curve



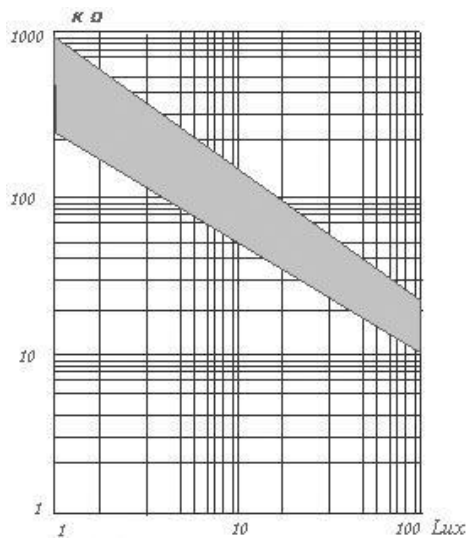
Picture1 GM12516



Picture 2 GM12528



Picture 3 GM12537-1



Picture 4 GM12537-2

Picture 5 GM12539

Note

1. Our products use the environmental protection packaging materials, small package is in 200 pieces, big one is 2000 pieces;
2. Avoid storing the product in the damp and high temperature environment;
3. The welding time should as short as possible;
4. The lead bonding position should above the ceramic base 4 mm.