Dongguan Ampfort Electronics Co., Ltd.

Specification of Light Sensor/

Ambient Light Detector

（Directly Replace Photoresistor）

Model：EKPD5028IC

EKPD5028IC Light Sensor

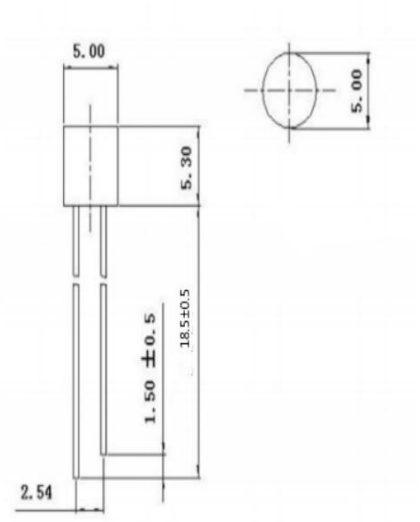
Application

Direct replacement CdS LDR;
Adjust background light, such as television, PDA, Cameras, LCD/LED displays and mobile phones etc;
Control toys and lighting equipment.

Characteristic

Special filter epoxy encapsulation, spectral response characteristics similar to the human eyes;
Linear output with light changes;
Have certain temperature stability;
Low dark current, low intensity of illumination;
Compliance with ROHS instructions/lead-free/cadmium free;

Structure Diagram



Unit: mm

Limit Parameter (T_A=25℃)

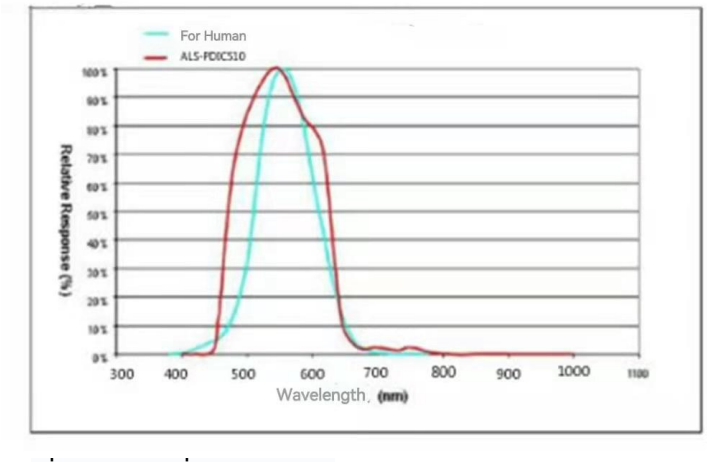
Parameter	Test Condition	Symbol	Parameter Values	Unit
Working Voltage		Vdd	10	V
Working Temperature		T amb	-30 to + 85	° C
Storage Temperature		T stg	-40 to + 85	° C
Welding Temperature		T sd	260	° C

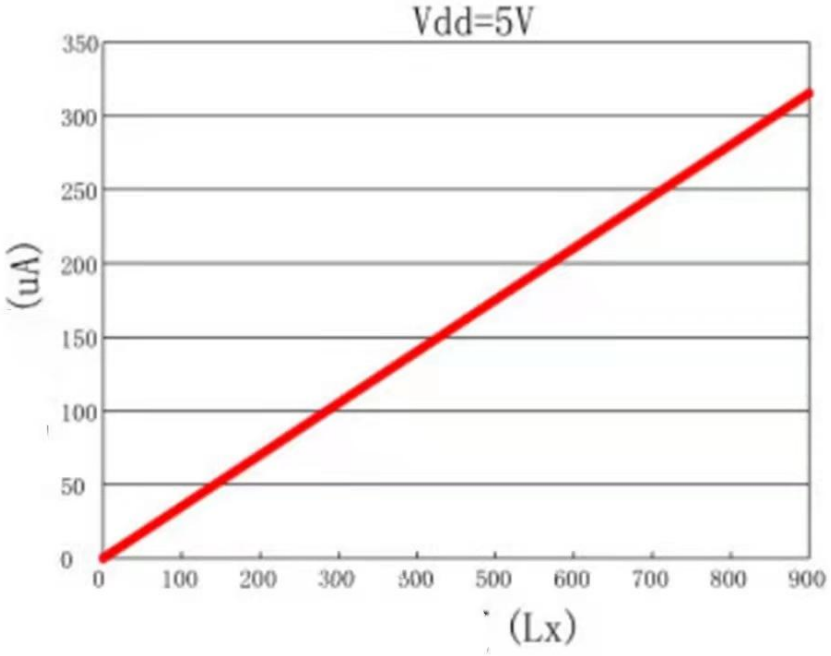
From outside in the bottom in 5mm colloids in welding, welding temperature control in the rating in 5 seconds.

Photoelectric Characteristic（ Ta=25℃）

Parameter	Sym bol	Test Condition	Min.	Type	Max.	Unir
Wavelength of Photosensitive Peak	λ p	/	--	550	--	nm
Scope of Lightwave Width	λ	/	400	--	700	nm
Working Voltage	Vcc	/	--	5	--	V
Light Current	I L(1)	Vcc=5V Ev=10Lux	3	5	7	μ A
	I L(2)	Vcc=5V Ev=30Lux	9	15	21	μ A
	I L(3)	Vcc=5V Ev=100Lux	30	50	70	μ A
Dark Current	I D	Vcc=5, Ev=0Lux 25° C	--	--	0.2	nA
	I D	Vcc=5, Ev=0Lux 85° C	--	--	0.5	nA
	I D	Vcc=5, Ev=0Lux 125° C	--	--	100	nA
Infrared Receiving Current	I L(4)	Vcc=5V/850nm IR LED Ee=1mW/c ㎡	--	--	0.1	μ A

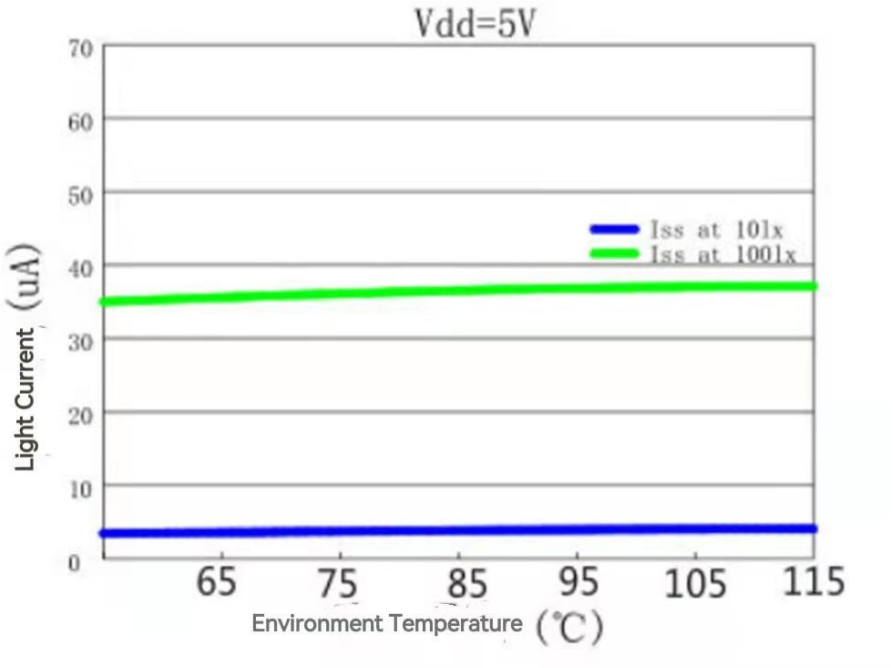
Photoelectric Characteristic Curve



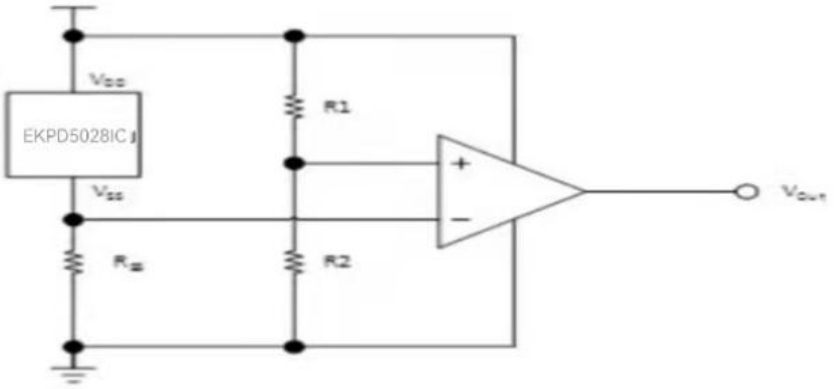


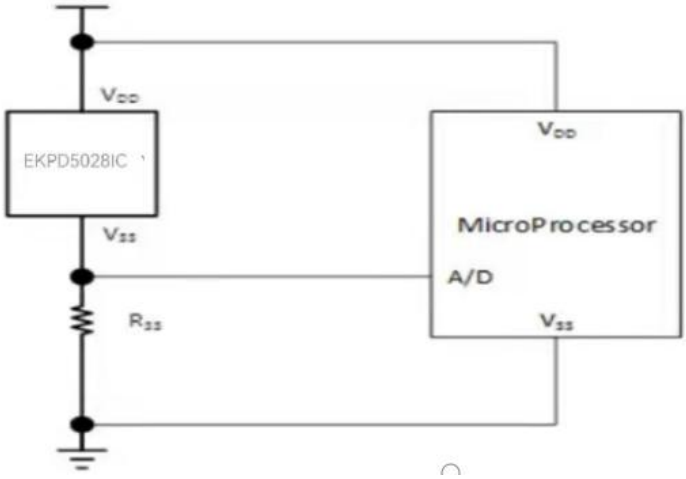
Light Current and Light Intensity

EnvironmentTemperature VS Light Current



Application





Note

1. Don’t exceed the product specification limits in use;

2. The application circuit mentioned is just for reference, in practical application, we should accord the specific needs to design the circuit and adjust parameter.

3.Welding temperature and time can't exceed rated range, the welding process of or welding complete avoid external force in pins, don't repeat welding;

4. This product meets the RoHS requirement;

5. Product surface damage and pollution can affect current, avoid too in damp environment and use;

6. The product standard packaging for 1,000pcs packaging.