

Even it's mini body,
can detect wide application range,
like thin white paper.

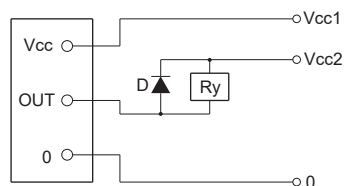


CHARACTERISTICS

Supply Voltage	DC 5 V \pm 10%
Supply Current	20 mA (at DC 5V)
Load Voltage	Max. DC 24 V (with external resistor)
Load Current	Max. 80 mA
Output Style	Open collector Output is ON when shield the Light
Size of Light Shielding Object	Min. ϕ 1 mm
Working Light	Infrared LED, direct current lighting
Weight	4.6g
Ambient Operating Temperature	-10°C to +70°C (No Freeze)
Ambient Operating Humidity	80%RH Max. (No Conensation)
Ambient Storage Temperature	-25°C to +65°C (No Freeze)
Ambient Storage Humidity	80%RH Max. (No Condensation)

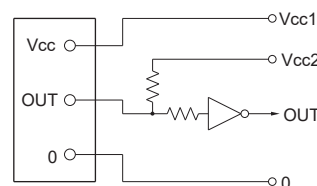
CIRCUIT

● Inductive load circuit



D: Protection diode

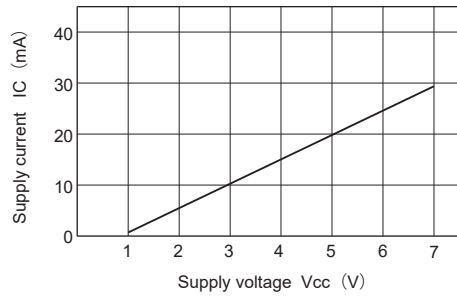
● Non-inductive load circuit



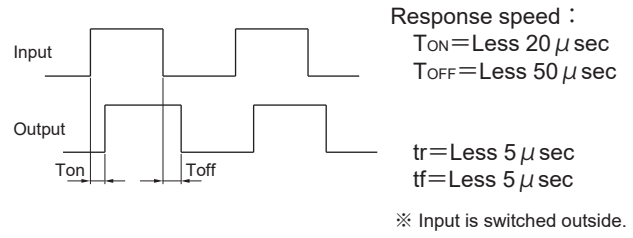
※ For a single power supply, Vcc1=Vcc2.

CHARACTERISTIC CURVE (EXAMPLE)

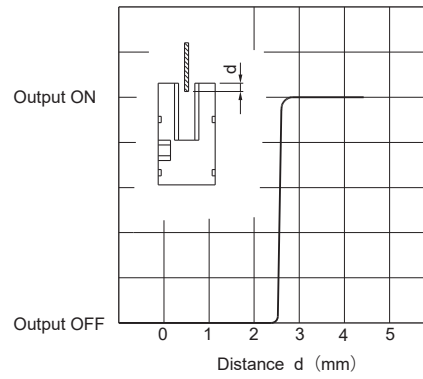
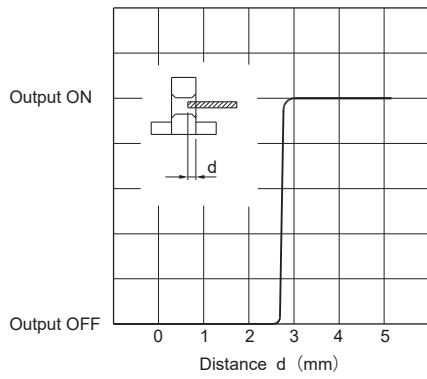
● Supply voltage—Supply current



● Response



● Detective position



Safety Precautions for Light Sensor

1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of Sunmulon products listed in this catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
- (2) The ambient operating temperature(humidity) is guaranteed by evaluation based on characteristics, and does not guarantee continuous use for a long period of time near the upper or lower limit of the ambient operating temperature(humidity) or permanent use at that temperature(humidity).
- (3) Reference data and reference values listed in catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (4) The specifications / appearance and accessories of Sunmulon products listed in catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (5) The content of catalogs is subject to change without notice.

2. Note on applications

- (1) If using Sunmulon products in combination with other products, confirm the following suitability by yourself. Sunmulon shall provide no guarantees regarding the combination suitability.
 - (a) Regulations, standards, or laws to which your machinery, equipment, etc. must conform
 - (b) Functionality and safety of your machinery and equipment
- (2) Wiring and installation that ensures the Sunmulon product used in your system, machine, device, or the like can perform and function according to its specifications.
- (3) When using Sunmulon products, be cautious when implementing the following.
 - (a) Use of Sunmulon products with sufficient allowance for rating and performance.
 - (b) Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that Sunmulon product fails.
- (4) Sunmulon products are designed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use Sunmulon product for these applications, unless otherwise agreed upon between you and Sunmulon, Sunmulon shall provide no guarantees whatsoever regarding Sunmulon products.
 - (a) Safety devices intended for human body protection
 - (b) Direct control of transport equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.)
 - (c) Space equipment, submarine equipment
 - (d) Nuclear power control equipment, radiation related equipment
 - (e) Combustion equipment, electric heat equipment
 - (f) Disaster prevention and security equipment
 - (g) Elevating equipment
 - (h) Amusement facilities
 - (i) Facilities subject to government or industry regulations
 - (j) Use in applications that require a high degree of safety, any other equipment, instruments, or the like that could endanger life or human health

3. Warranty

- (1) The warranty period for Sunmulon products shall be 1 year after purchase or delivery to the specified location.
- (2) Warranty scope should a failure occur in Sunmulon product during the above warranty period for reasons attributable to Sunmulon, then Sunmulon shall provide that product, free of charge, the same quantity. Further, in no event shall liability of Sunmulon exceed the individual price of the product on which liability is asserted.
- (3) Failures caused by the following reasons shall be deemed outside the scope of this warranty.
 - (a) The product was handled or used deviating from conditions / environment listed in the catalogs
 - (b) The failure was caused by reasons other than Sunmulon product
 - (c) Modification or repair was performed by a party other than Sunmulon
 - (d) Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and catalogs
 - (e) The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from Sunmulon
 - (f) The failure was due to other causes not attributable to Sunmulon (including cases of force majeure such as natural disasters and other disasters)
- (4) The warranty listed in this Safety Precautions is the full and complete warranty for Sunmulon products, and Sunmulon shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to Sunmulon product.

4. Handling precautions for Light sensor

- (1) Avoid wiring parallel to high-voltage lines and use shielded wires or metal tubes for noise suppression.
- (2) Install in a solid location so that it will not move after installation.
- (3) Do not drop or otherwise apply strong force to the light sensor.
- (4) Never modify or disassemble the light sensor as it may cause malfunction or accidents.

Safety Precautions for Light Sensor

- (5) Usage environment
 - (a) Do not use in the presence of flammable or explosive gases such as gasoline, thinner, LPG, etc.
 - (b) Avoid using the product in places where corrosive or silicon gas is generated, high temperature, high humidity, sea breeze or direct sunlight.
 - (c) Provide appropriate protection when using the product in places where it is exposed to water, oil, metal powder, or dust.
 - (d) Do not use the product in a place subject to vibration or shock. It may cause malfunction or damage.
 - (e) When checking the actual equipment, load conditions and operating environment should be the same as the actual operating conditions.
 - (f) The ambient temperature for storage is -25°C to 65°C (No freeze, no condensation).
- (6) Store the product away from malignant gases, dust, high temperature and high humidity, and keep it in our packing condition.
- (7) Periodic inspection and replacement
 - (a) Deterioration of various parts (deterioration of resins and corrosion of metal parts) is possible due to the operating environment and method of use.
We ask that you implement inspections for Sunmulon products to prevent accidents from occurring by conducting periodic inspections and replacements.
- (8) Service scope
 - The price of Sunmulon products do not include the cost of services, such as dispatching technicians.