

GP2Y1010AU0F

Compact Optical Dust Sensor



■ Description

GP2Y1010AU0F is a dust sensor by optical sensing system.

An infrared emitting diode (IRED) and an phototransistor are diagonally arranged into this device. It detects the reflected light of dust in air. Especially, it is effective to detect very fine particle like the cigarette smoke.

In addition it can distinguish smoke from house dust by pulse pattern of output voltage.

■ Compliance

1. Compliant with RoHS directive (2002/95/EC)

■ Applications

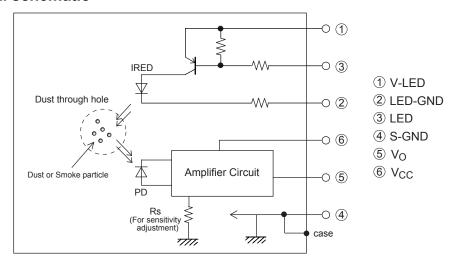
- 1. Detecting of dust in the air.
- 2. Example: Air purifier, Air conditioner, Air monitor

■ Features

- 1. Compact, thin package $(46.0 \times 30.0 \times 17.6 \text{ mm})$
- 2. Low consumption current (Icc: MAX. 20 mA)
- 3. The presence of dust can be detected by the photometry of only one pulse
- 4. Enable to distinguish smoke from house dust
- 5. Lead-free and RoHS directive compliant



■ Internal schematic



■ Outline Dimensions

(Unit: mm) 46.0 (2.8)30.0 Marking portion 14.3 20.0 $\varphi \, 9^{\pm\,0.15}$ 2.0 22.8 Dust through hole Connector: S6B-ZR-SM4A-TF by JST Mfg. Co., Ltd. 17.6 Terminal ШП configuration 6 1 ① V-LED (34.8)2 LED-GND 3 LED 28.1 13.4 4 S-GND 22.8 ⑤ Vo R2 R2 (9.3)(3) 6 Vcc 7 R2 (3) (3) $\underline{\phi8^{\pm0.15}}$ Hole for sensitivity adjustment of variable resistor Dust through hole * Unspecified tolerance : ± 0.3 mm. Product mass: approx. 16 g The dimensions in parenthesis are shown for reference.