

GP2Y3A003K0F

Wide angle Distance Measuring Sensor Unit

Measuring distance: 40 to 300 cm
5 Analog outputs type



■ Description

GP2Y3A003K0F is a distance measuring sensor unit, composed of an integrated combination of PSD (position sensitive detector), 5-IREDs (infrared emitting diode) and signal processing circuit.

The variety of the reflectivity of the object, the environmental temperature and the operating duration are not influenced easily to the distance detection because of adopting the triangulation method.

This device uses 5 infrared beams for wide range (field of view) detection. This device outputs the 5 voltages corresponding to the each distance detection.

■ Agency approvals/Compliance

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

■ Applications

1. Robot cleaner
2. Vending machine
3. ATM/CD
4. Air conditioner
5. Amusement equipment
(Robot, Arcade game machine)

■ Features

1. Long range type
Measuring range distance : 40 to 300 cm
2. 5 Analog outputs type
3. Package size : 53×20×18 mm
4. Consumption current : Typ. 30 mA
5. Supply voltage : 4.5 to 5.5 V
6. Detection angle : 25°

Notice The content of data sheet is subject to change without prior notice.

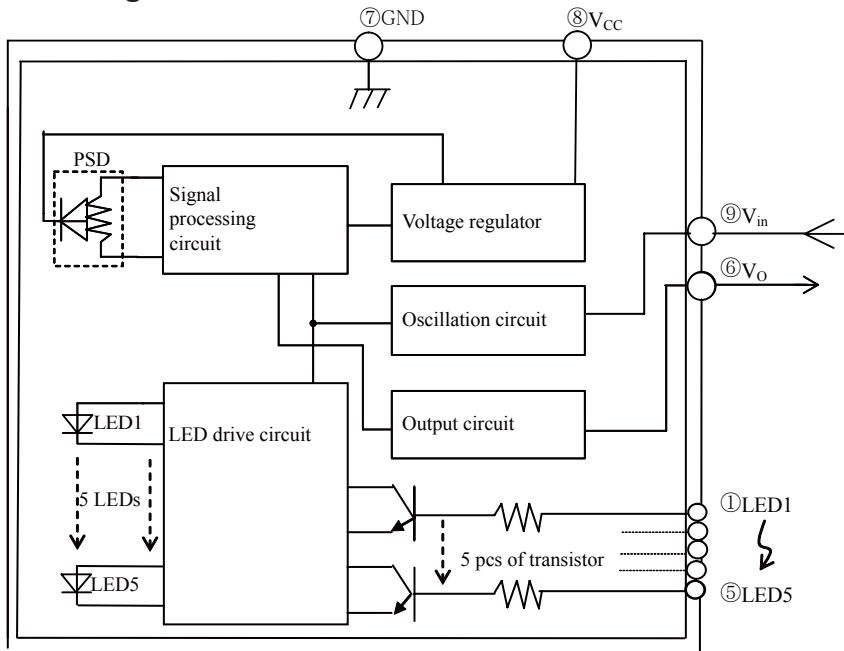
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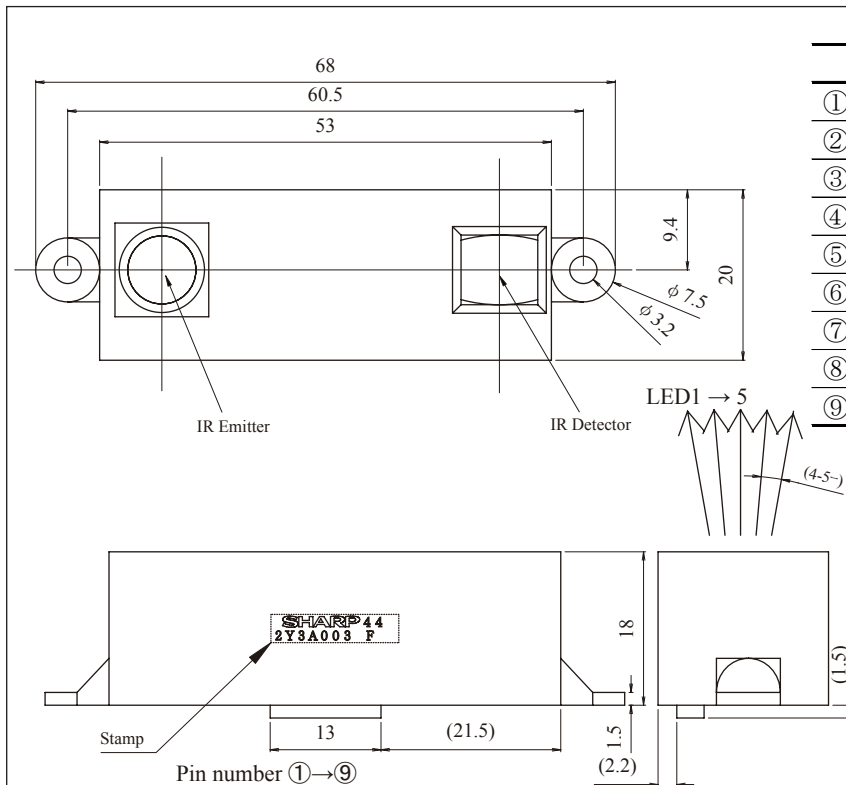
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Block diagram



Outline Dimensions

(Unit : mm)



Terminal	Symbol
① Signal inputs for selecting LED1	LED1
② Signal inputs for selecting LED2	LED2
③ Signal inputs for selecting LED3	LED3
④ Signal inputs for selecting LED4	LED4
⑤ Signal inputs for selecting LED5	LED5
⑥ Output terminal voltage	V_O
⑦ Ground	GND
⑧ Supply voltage	V_{CC}
⑨ Input voltage	V_{in}

Stamp (Example)

SHARP 44
2Y3A003 F
Model name

Production year : Last digit of prod. year
Production month : Jan. to Sep. ; 1 to 9
Oct. ; X, Nov. ; Y, Dec. ; Z

Note 1. Unspecified tolerances shall be ± 0.3 mm.

Note 2. The connector is made by Molex and its part number is 53047-0910.

Note 3. The dimensions in parenthesis are shown for reference.

Product mass : approx. 9.1g