

# GP2Y0D340K

## Compact Distance Measuring Sensors

### ■ Features

1. Less influence on the color of reflective objects, reflectivity
2. Line-up of distance judgement type  
 Detecting distance: 10 to 60cm  
 Judgement distance: 40cm  
 (Adjustable within the range of 10 to 60cm [Optionally available])
3. External control circuit is unnecessary

### ■ Applications

1. LCD monitor
2. Sanitary equipment
3. Personal computers
4. Game machine

### ■ Absolute Maximum Ratings $(T_a=25^{\circ}\text{C}, V_{CC}=5\text{V})$

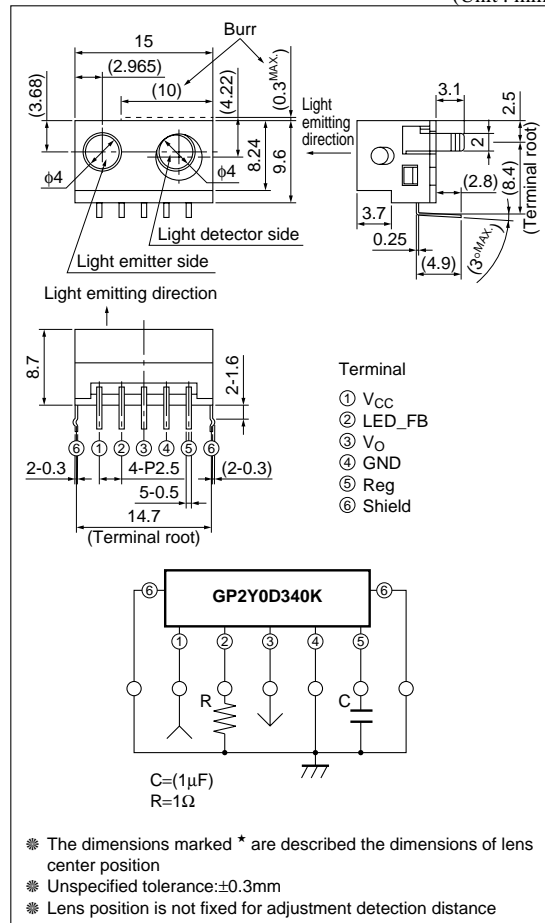
Parameter	Symbol	Rating	Unit
Supply voltage	$V_{CC}$	-0.3 to +7	V
Output terminal voltage	$V_O$	-0.3 to $V_{CC} + 0.3$	V
Operating temperature	$T_{opr}$	-10 to +60	$^{\circ}\text{C}$
Storage temperature	$T_{stg}$	-20 to +70	$^{\circ}\text{C}$

### ■ Recommended Operating Conditions

Parameter	Symbol	Rating	Unit
Operating supply voltage	$V_{CC}$	4.5 to +5.5	V

### ■ Outline Dimensions

(Unit : mm)



## ■ Electro-optical Characteristics

 $(T_a=25^{\circ}\text{C}, V_{CC}=5\text{V})$ 

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Distance measuring range	$\Delta L$	*1 *3	10	—	60	cm
Output terminal voltage	$V_{OH}$	Output voltage at High *1	$V_{CC}-0.3$	—	—	V
	$V_{OL}$	Output voltage at Low*1	—	—	0.6	V
Distance characteristics of output	$V_O$	*1 *4 *2	35	40	45	cm
Average dissipation current	$I_{CC}$	at $R_L=1\Omega$	—	28	35	mA

Note) L : Distance to reflective object

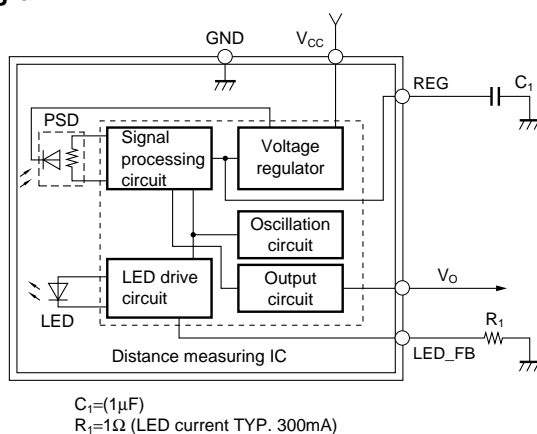
\*1 Using reflective object : White paper (Made by Kodak Co. Ltd. gray cards R-27 · white face, reflective ratio:90%)

\*2 We ship the device after the following adjustment : Output switching distance  $L=40\text{cm}\pm 5\text{cm}$  must be measured by the sensor

\*3 Distance measuring range of the optical sensor system

\*4 Output switching has a hysteresis width. The distance specified by  $V_0$  should be the one with which the output L switches to the output H

### Fig.1 Internal Block Diagram



### Fig.2 Timing Chart

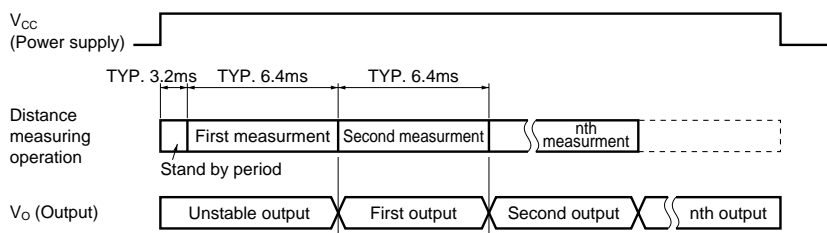
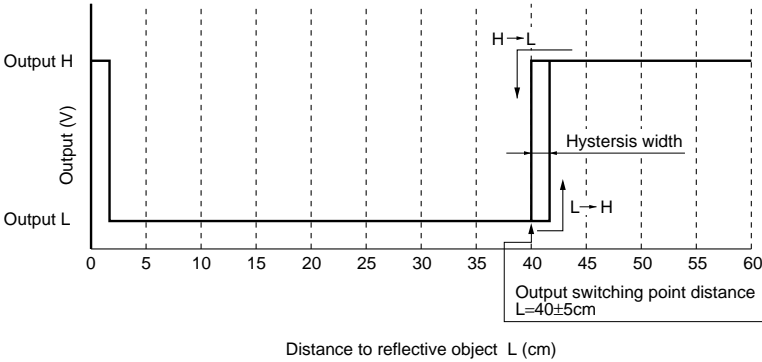


Fig.3 Distance Characteristics



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