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

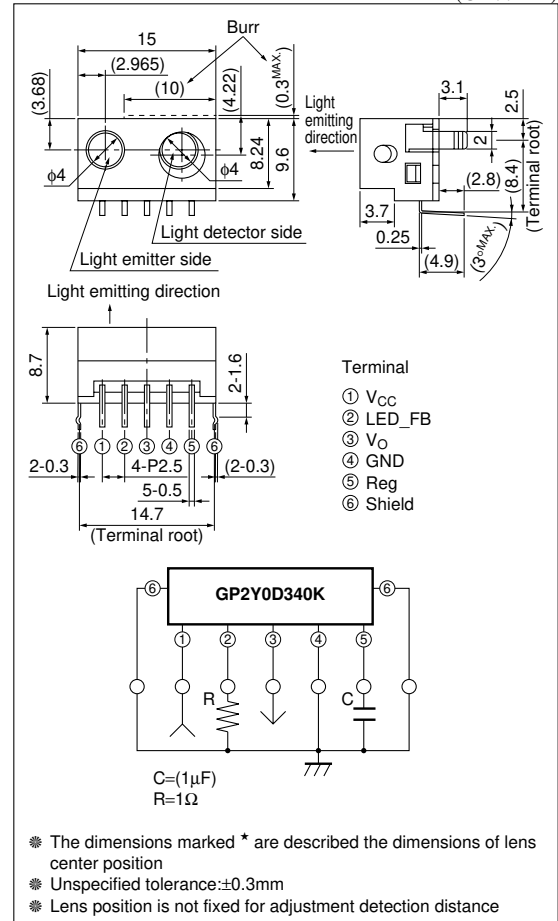
Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	-0.3 to +7	V
Output terminal voltage	V_O	-0.3 to $V_{CC} + 0.3$	V
Operating temperature	T_{opr}	-10 to +60	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-20 to +70	$^{\circ}\text{C}$

■ 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	ΔL	^{*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 $R_1=1\Omega$	—	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_O should be the one with which the output L switches to the output H

Fig.1 Internal Block Diagram

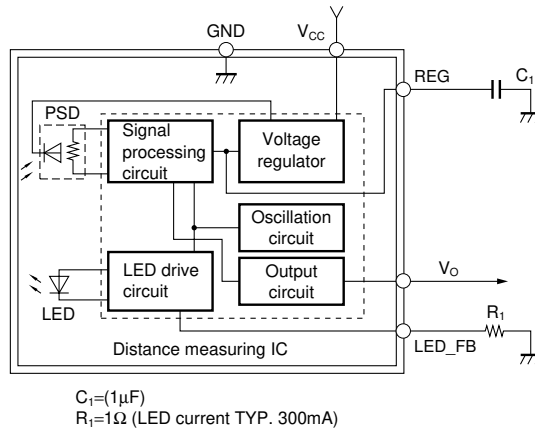


Fig.2 Timing Chart

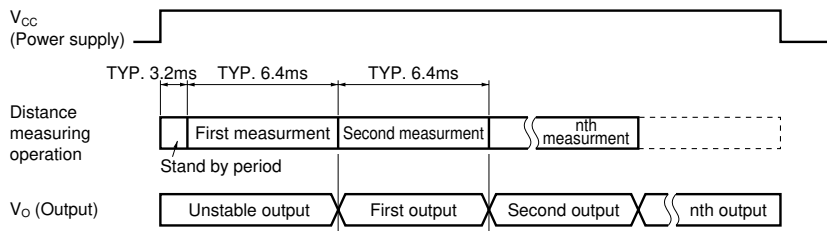
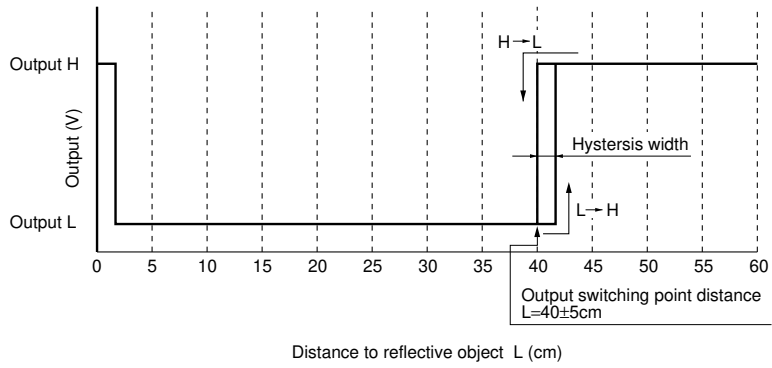


Fig.3 Distance Characteristics



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