

### ■ 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	$T_{stg}$	-40 to +70	$^{\circ}\text{C}$

### ■ Electro-optical Characteristics ( $T_a=25^{\circ}\text{C}, V_{CC}=5\text{V}$ )

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Average supply current	$I_{CC}$		—	33	50	mA
Detecting distance range	$\Delta L$	(Note 1)(Note 3)	20	—	—	cm
Output voltage	$V_{OH}$	Output voltage at high level(Note 1)	$V_{CC}-0.3$	—	—	V
	$V_{OL}$	Output voltage at low level(Note 1)	—	—	0.6	V
Detecting distance	L	(Note 1)(Note 2)(Note 4)	70	80	90	cm

\* L : Distance to reflective object

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

(Note 2) The individual product shall be adjusted to have  $L = 80 \text{ cm} \pm 10 \text{ cm}$  as the distance before shipping detecting.

(Note 3) Possible distance measuring range (of the sensor optics)

(Note 4) Output voltage switch has a hysteresis width. The distance specified by L should be the distance which the output turns from L to H in case an object moves to the sensor.

### ■ Recommended operating conditions

Parameter	Symbol	Conditions	Rating	Unit
Supply voltage	$V_{CC}$		4.5 to 5.5	V

**Fig. 1 Timing chart**

