

GP2Y0A21YK0F

Distance Measuring Sensor Unit
Measuring distance: 10 to 80 cm
Analog output type

参考資料

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_{sta}	-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}	L=80cm (Note 1)	—	30	40	mA
Distance measuring	ΔL	(Note 1)	10	—	80	cm
Output voltage	V_O	L=80cm (Note 1)	0.25	0.4	0.55	V
Output voltage differential	ΔV_O	Output voltage difference between L=10cm and L=80cm (Note 1)	1.65	1.9	2.15	V

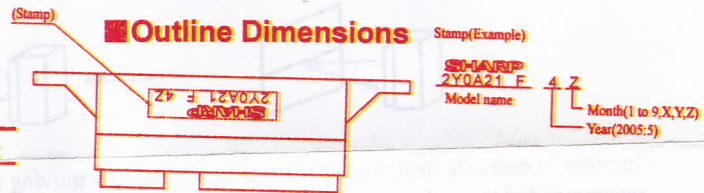
* L : Distance to reflective object

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

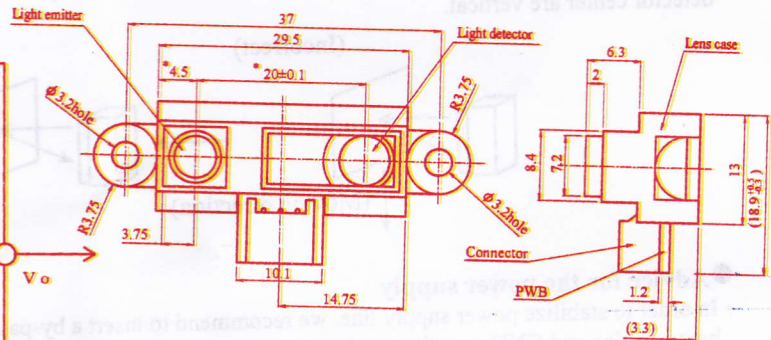
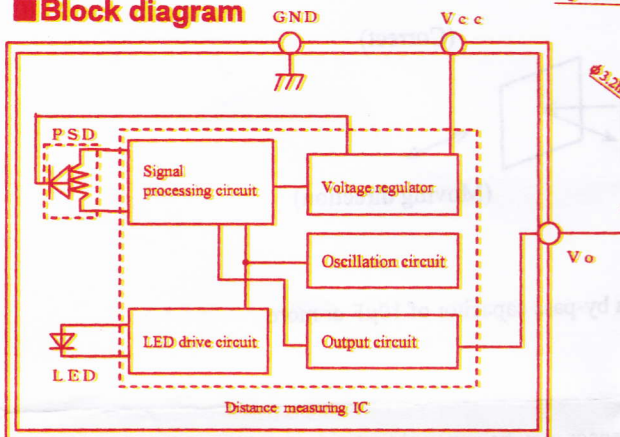
Recommended operating conditions

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

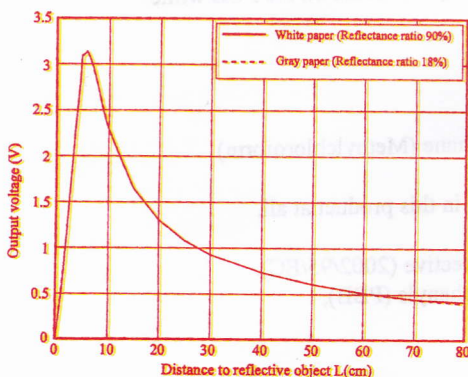
Outline Dimensions



Block diagram



Example of distance measuring characteristics(output)



Connector signal

Signal name	Connector
① V_O	J.S.T. TRADING COMPANY, LTD. S3B-PH
② GND	
③ V_{CC}	

Connector :
J.S.T. TRADING COMPANY, LTD.
S3B-PH

Materials

Lens : Acrylic acid resin
(Visible light cut-off resin)
Case : Carbonic ABS
(Conductive resin)
PWB : Paper phenol

Note 1. The dimensions marked * are described the dimensions of lens center position.

Note 2. Unspecified tolerances shall be ± 0.3 mm.

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