Paper Sensor

KPS1002C-□

Description

The KPS1002C photo switch is composed of a modulated infrared emitting diode at the light-emitting side and a modulated photo IC (in which a photo diode, signal processing circuit, constant voltage circuit and modulation circuit are integrated) at the light receiving side.

Features

- Snap in mount
- Position pin to prevent mis-alignment
- Medium focal distance
- RoHS compliant

Applications

- Printers
- PPC
- Fax

Absolute Maximum Ratings (T_a=25℃, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Supply voltage	V_{cc}	-0.5 ~ 5.5	V
Output voltage *1	V_O	5.5	V
Low level output current *2	I_{OL}	30	mA
Power dissipation	P_O	30	mW
Operating temperature *3,*4	T_{opr}	-10 ~ 70	℃
Storage Temperature *3,*4	T_{stg}	-20 ~ 80	℃

*1 : Voltage between collector and emitter of the output transistor.

*2 : Output transistor collector current.

*3 : No freezing / dewing.

*4 : Connect/Disconnect connectors at ambient temperature.

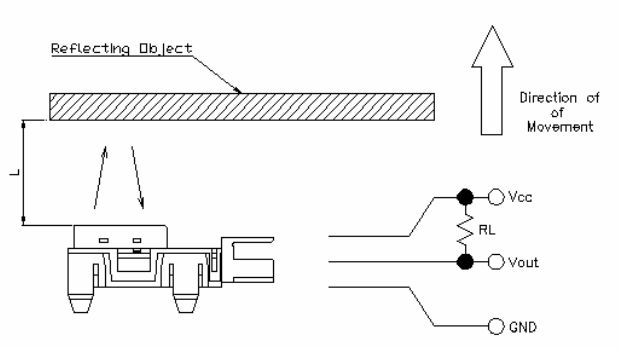
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When using this product, would you please refer to the latest specifications.

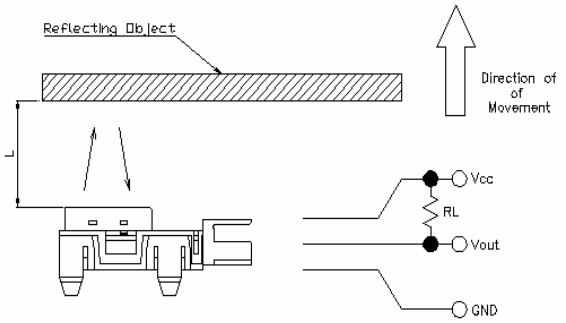
Electrical Characteristics (T_a=25℃)

Characteristic		Symbol	Test Condition		Min.	Typ.	Max.	Unit
Operating supply voltage		V_{CC}	-		3.05	-	5.25	V
Low level output voltage		V_{OL}	V_{CC}=5V, I_{OL}=10 mA, Detecting		-	-	0.4	V
High level output voltage		V_{OH}	V_{CC}=5V, R_L=1 kΩ, Undetecting		4.5	-	-	V
Low level current consumption		I_{CCL}	V_{CC}=5V, Detecting		-	12	35	mA
High level current consumption		I_{CCH}	V_{CC}=5V, Undetecting		-	12	35	mA
Minimum detection distance *5		L_{DS}	V_{CC}=5V R_L=1 kΩ	OD:0.05	-	-	7	mm
				OD:1.16	-	-	10	mm
Maximum detection distance *6		L_{DL}		OD:0.05	25	-	-	mm
				OD:1.16	16	-	-	mm
Non detection distance *5		L_{NS}		OD:0.05	-	-	50	mm
Non detection area *7		L_{NA}		POM(White)	-	-	Φ10	mm
Response time	L→H propagation	t_{PLH}	V_{CC}=5V, R_L=1 kΩ *8		-	-	0.5	ms
	H→L propagation	t_{PHL}			-	-	0.5	ms
Disturbance light *9		Ev	V_{CC}=5V, R_L=1 kΩ		3000	-	-	Lx

*5 : Minimum detection distance and non-detection distance measuring method.

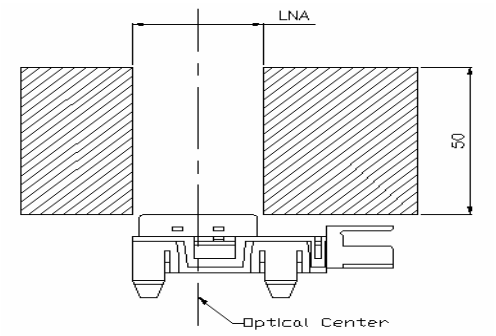
*6 : Maximum detection distance measuring method.

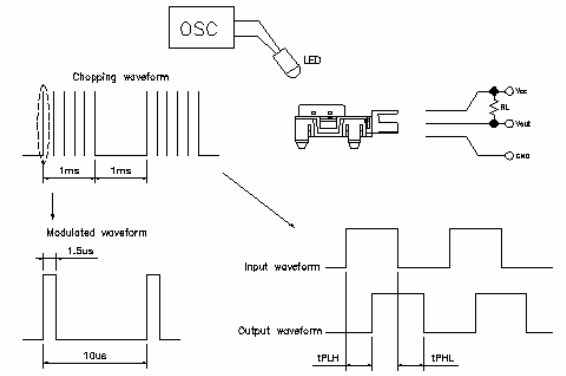




*7 : Non detecting area.

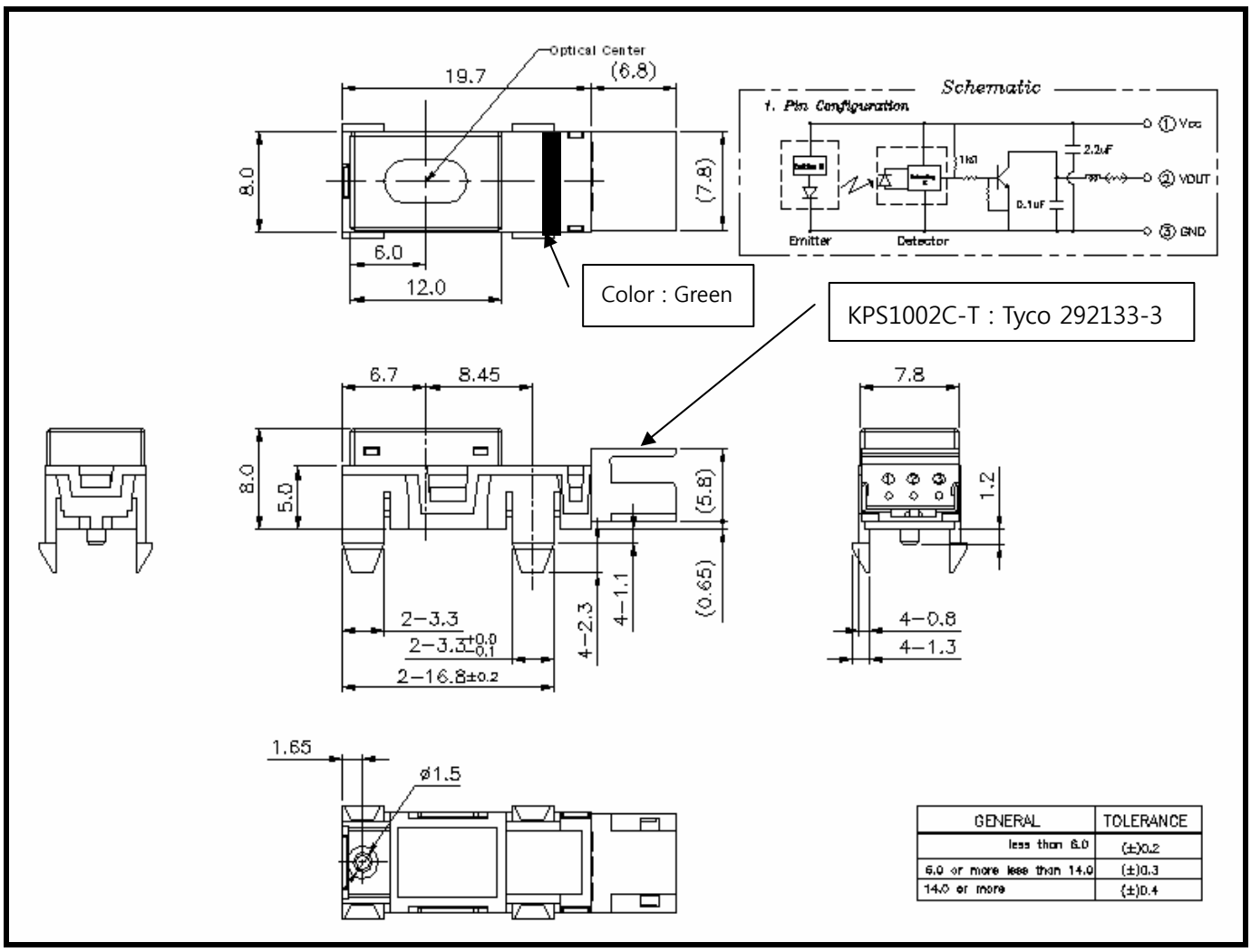
*8 : Response time measuring method.





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Package Outline Dimensions



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