

# KR895

## Light modulation type

### Description

Model **KR895** consists of an Infra Red LED and a Light modulation type of Photo IC, and has one piece seamless plastic housing.

### Feature

- Short detecting distance.
- Easy removing in paper-dust.
- Available for detection of dark paper/OHP film.
- Measures of Visible light affection.  
(Light-modulation type)

### Application

- Paper detection in Copying machine, Printer, and Facsimile.
- Object passing for Card reader, Auto vending machine.

### Absolute Maximum Ratings

[ $T_a=25^\circ\text{C}$  Unless otherwise noted]

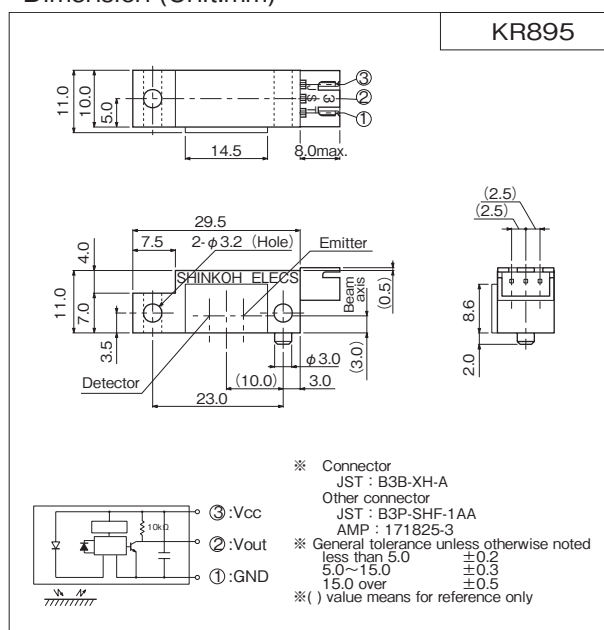
Item	Symbol	Rating	Units
Supply Voltage	$V_{CC}$	7	V
Output Current	$I_o$	50	mA
Operating Temperature	$T_{opr}$	-10 ~ +60	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-20 ~ +80	$^\circ\text{C}$

### Electro-Optical Characteristics

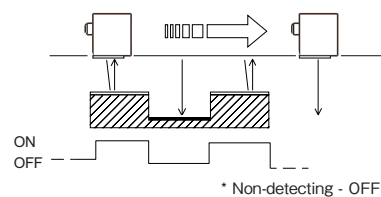
[ $V_{CC}=5\text{V}$ ,  $T_a=25^\circ\text{C}$  Unless otherwise noted]

Item	Symbol	Condition	min.	typ.	max.	Units
Supply Voltage	$V_{CC}$		4.75	5.0	5.25	V
Current Consumption	$I_{CCP}$		—	—	150	mA
	$I_{CC}$		—	—	20	mA
Low Level Output Voltage	$V_{OL}$	$I_{OL}=16\text{mA}$ Object detecting	—	—	0.4	V
High Level Output Voltage	$V_{OH}$	Non-detecting	$V_{CC} \times 0.9$	—	—	V
Detecting Distance $\ast 1$	$d1$	Object: 90% Reflective paper	1.5	—	7	mm
Non-Detecting Distance $\ast 2$	$d2$		—	—	30	
Ambient Illumination	—	CIE STD. A light source	2000	—	—	lux
Response Time	"High" $\rightarrow$ "Low"	$\ast 3$	$t_{PHL}$	—	1	msec
	"Low" $\rightarrow$ "High"		$t_{PLH}$	—	1	

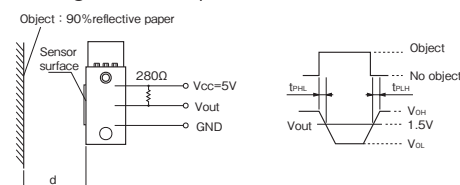
Dimension (Unit:mm)



$\ast 1$ ,  $\ast 2$  : Detecting distance/Non-detecting distance



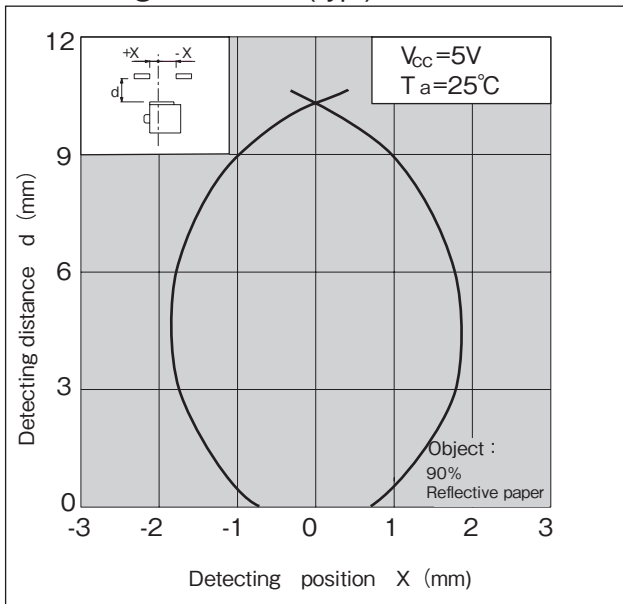
$\ast 3$  : Measuring circuit of Response time



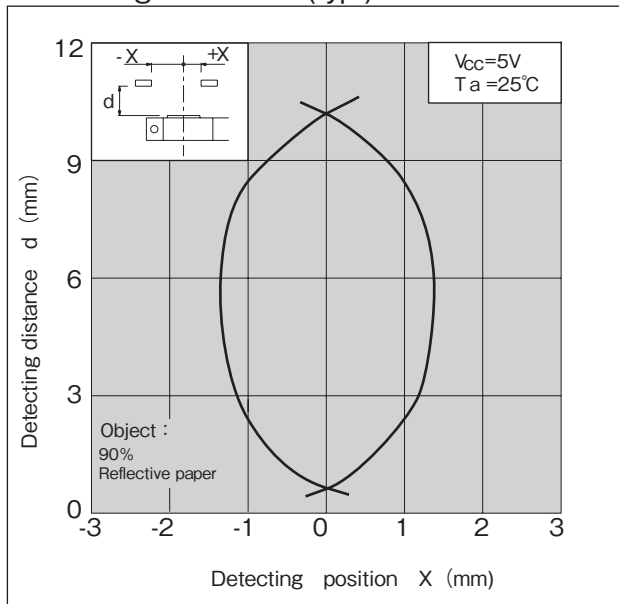
# KR895

## Characteristics

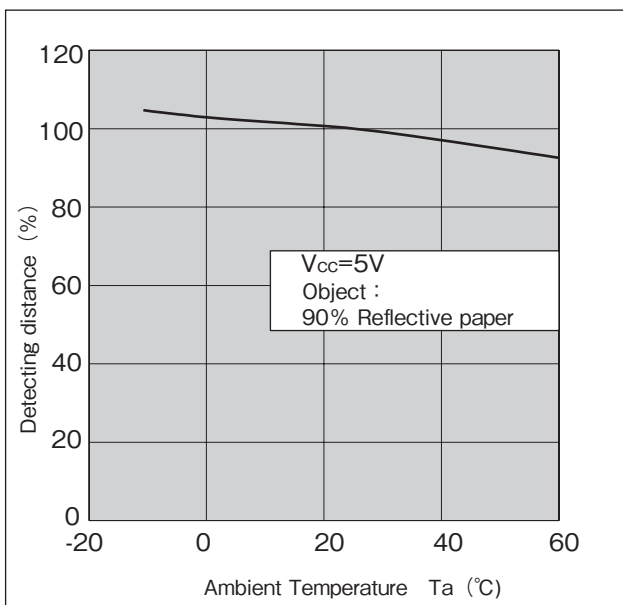
Detecting distance vs  
Detecting Position 1 (typ.)



Detecting distance vs  
Detecting Position 2 (typ.)



Ambient Temperature vs Detecting distance (typ.)



Series Line-Up

(Unit:mm)

Model No.	Method	Detecting Distance			Non-Detecting Distance
		90% Reflective paper	Black Paper * OD=1.2	OHP *	90% Reflective paper
KR865	Light-Modulation	7 ~ 25	13 ~ 17	10 ~ 20	60
KR866		4 ~ 32	10 ~ 20	8 ~ 25	75
KR895		1.5 ~ 7	2.5 ~ 5.5	2 ~ 6	30
KR1207	Direct Current	1 ~ 15	2.5 ~ 4.5	2 ~ 7	55
KR864		7 ~ 11	8 ~ 9	7 ~ 10	30
KR894		2 ~ 5.5	3.5 ~ 4.5	2 ~ 5.5	15

\* Detecting Distance by Black paper and OHP film are reference only.

- A Custom designed package is available on request.
- Specification are subject to change without notice.

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