

KI1233,1234

Slit less Type

Description

Model **KI1233/1234** consist of an Infra Red LED and a Photo IC.

Feature

- Built-in amplifier, Open collector output type.
- Easy removing in paper-dust.
- High-resolution : slit width 0.5mm.
- Visible Light cut filter.
- Built in resistor for LED drive.
- The other model;
Built in Pull-up Resistor type ... **KI1235, KI1236**
Phototransistor type ... **KI1232**

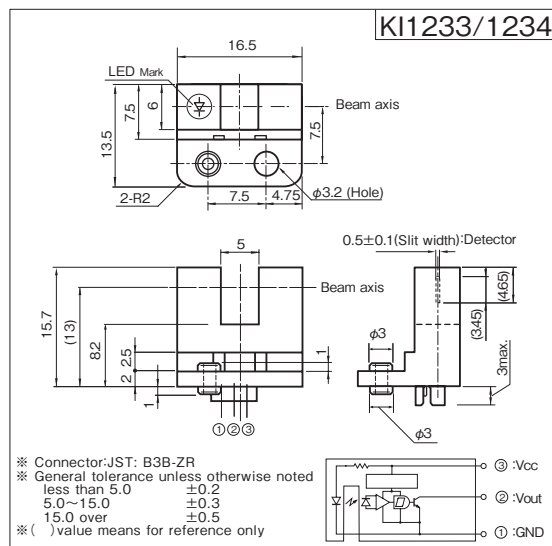
Application

- Object passing for Card reader, Bill exchanger.
- Coin-passing for Auto vending machine and Amusement.
- Object passing in Auto vender and Ticket vending machine.
- Paper detection for O.A. equipment.

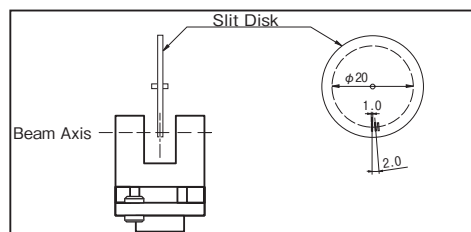
Absolute Maximum Ratings
[Ta=25°C Unless otherwise noted]

Item	Symbol	Rating	Units
Supply Voltage	V _{CC}	6	V
Low Level Output Current	I _{OL}	50	mA
Output Voltage	V _O	28	V
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-40 ~ +80	°C

Dimension (Unit:mm)



Model	Operating mode
KI1233	at Beam detecting High
KI1234	at Beam detecting Low



Note: Each value shown at rotating of slit disk.
Don't output as DC.

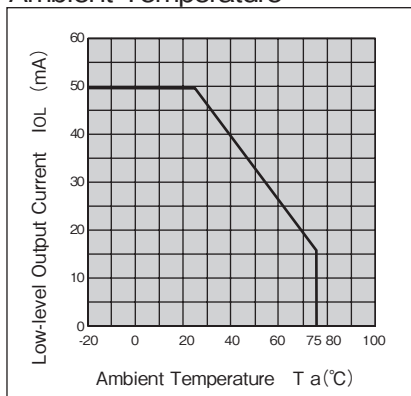
Electro-Optical Characteristics [V_{CC}=5V, Ta=25°C Unless otherwise noted]

Item	Symbol	Condition	min.	typ.	max.	Units
Supply Voltage	V _{CC}		4.5	5.0	5.5	V
Low Level Supply Current	I _{CC}	KI1233 at Light block by object	—	—	25	mA
		KI1234 at Beam detecting	—	—	25	
High Level Supply Current	I _{CC}	KI1233 at Beam detecting	—	—	25	mA
		KI1234 at Light block by object	—	—	25	
Low Level Output Voltage	V _{OL}	KI1233 at Light block by object, I _{OL} =16mA	—	—	0.4	V
		KI1234 at Beam detecting, I _{OL} =16mA	—	—	0.4	
High Level Output Voltage	V _{OH}	KI1233 at Beam detecting, R _L =47k Ω	V _{CC} × 0.9	—	—	V
		KI1234 at Light block by object, R _L =47k Ω	V _{CC} × 0.9	—	—	
Frequency	f		3000	—	—	Hz
Response Time	Rise		—	1.47	—	μ sec
	Fall		—	0.02	—	

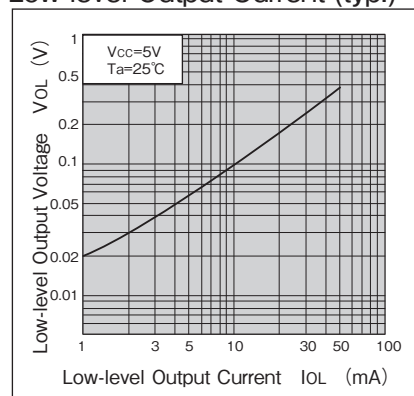
KI1233/1234

Note: Operation never exceeds each value of Absolute Maximum Ratings.

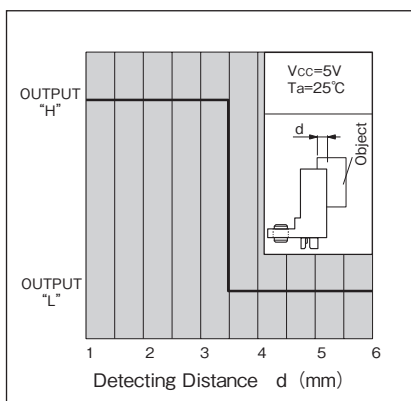
Low-level Output Current vs. Ambient Temperature



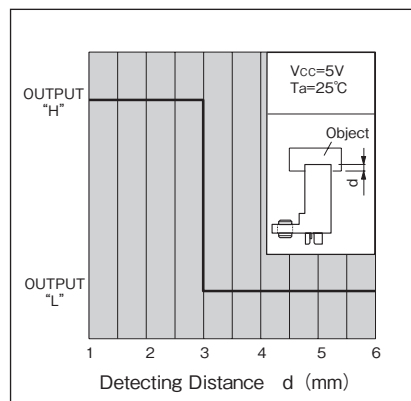
Low-level Output Voltage vs. Low-level Output Current (typ.)



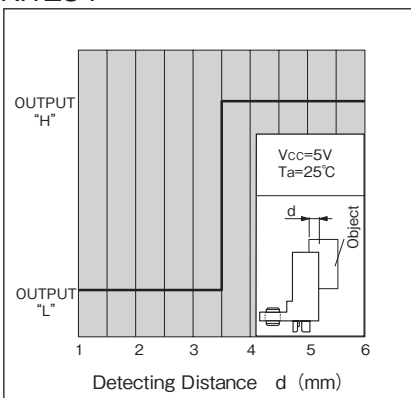
Detecting Position 1 (typ.)
KI1233



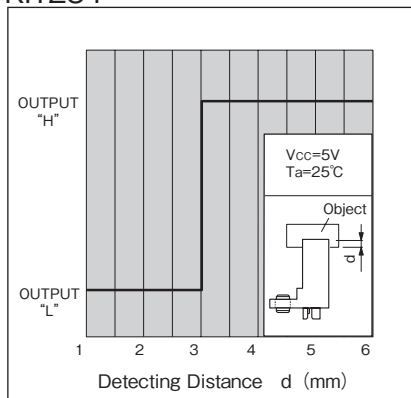
Detecting Position 2 (typ.)
KI1233



Detecting Position 1 (typ.)
KI1234



Detecting Position 2 (typ.)
KI1234



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

04.09-1A

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