

OKI electronic components

OPU864CP, OPU865CP

Photo capsule with Slit

GENERAL DESCRIPTION

The OPU864CP/OPU865CP are sensors that are suited to paper detection. For superior dustproof packing and easy mounting, a phototransistor is sealed (encapsuled) into a package with connectors.

The OPU864CP/OPU865CP perform a highly accurate detection because they have a 0.6mm-diameter slit and a 1.2mm-diameter slit, respectively.

The OPU864CP/OPU865CP assure a high quality because they have been assembled without using soldering or a adhesive.

FEATURES

- The light axis is positioned for efficient insertion into LED capsules and photosensors.
- The sensor unit element is protected from dust.
- The assembly and mount are easy (without soldering).

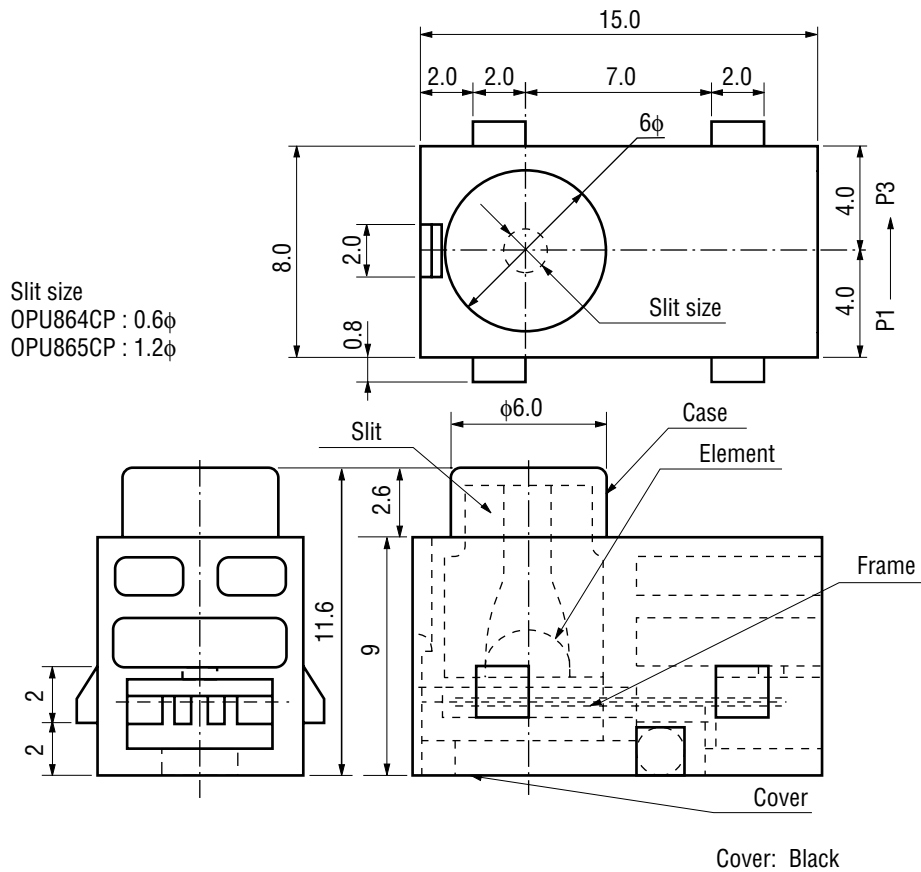
APPLICATIONS

- Banking terminals (ATM, etc.)
- Printers
- Copying machines
- Communications terminals (FAX, etc.)

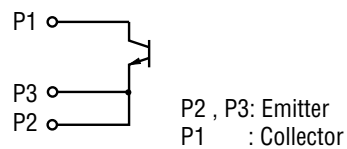
PIN CONFIGURATION

- OPU864CP, OPU865CP

(Unit: mm)



- Pin Connection Diagram
(P No. indicates the pin number of connectors.)



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Condition	Rating		Unit
			OPU864CP	OPU865CP	
Temperature Storage	T_{stg}	—	-10 to +60		°C
Operating Temperature	T_{opr}	—	-10 to +60		°C
Emitter-Collector Voltage	V_{ECO}	$T_a=25^{\circ}\text{C}$	5		V
Collector-Emitter Voltage	V_{CEO}		20		V
Collector Current	I_C		10		mA
Power Dissipation	P_C		150		mW

ELECTRICAL AND OPTICAL CHARACTERISTICS

• OPU864CP, OPU865CP

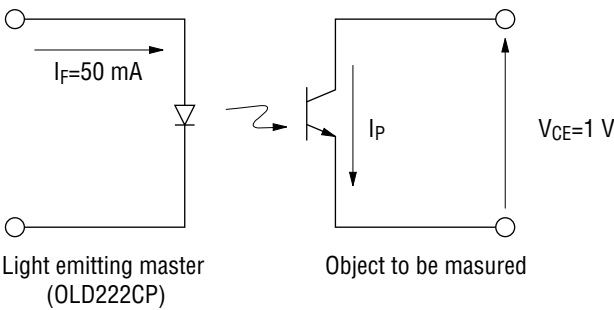
(Ambient Temperature $T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Dark Current	I_D	$V_{CE}=9\text{ V}$	—	—	100	nA
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=100\text{ }\mu\text{A}$	20	—	—	V
Output Photocurrent **	I_P	$I_F=50\text{ mA}$ $V_{CE}=1\text{ V}$ $L^*=5\text{ mm}$	1.2	—	8.4	mA

* : Distance between sensors

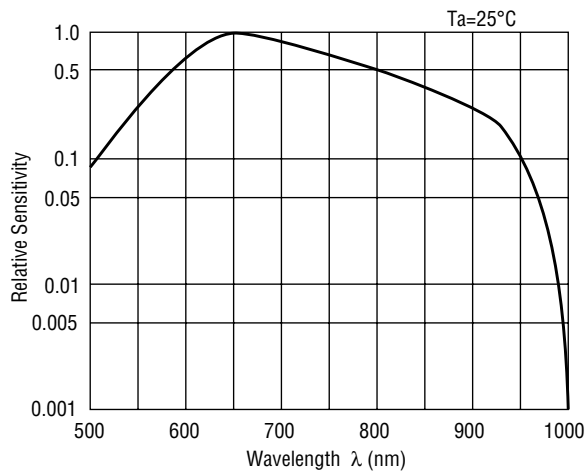
** : Measuring circuit

Measuring circuit

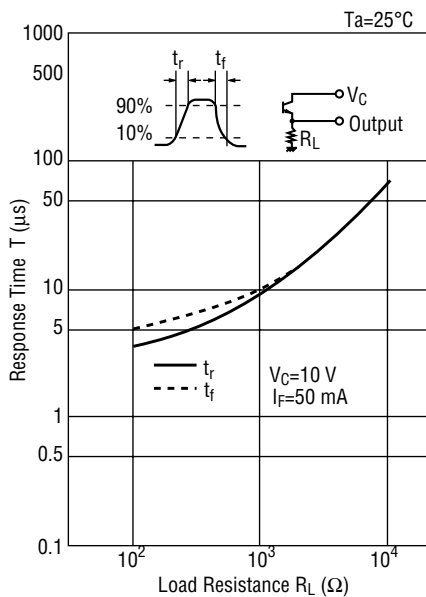


TYPICAL CHARACTERISTICS

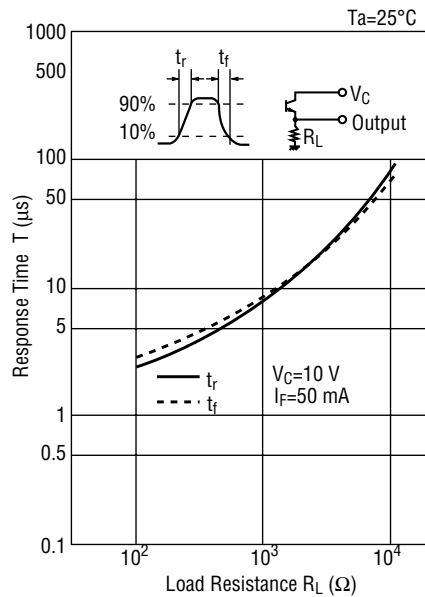
- OPU864CP, OPU865CP Spectral Sensitivity



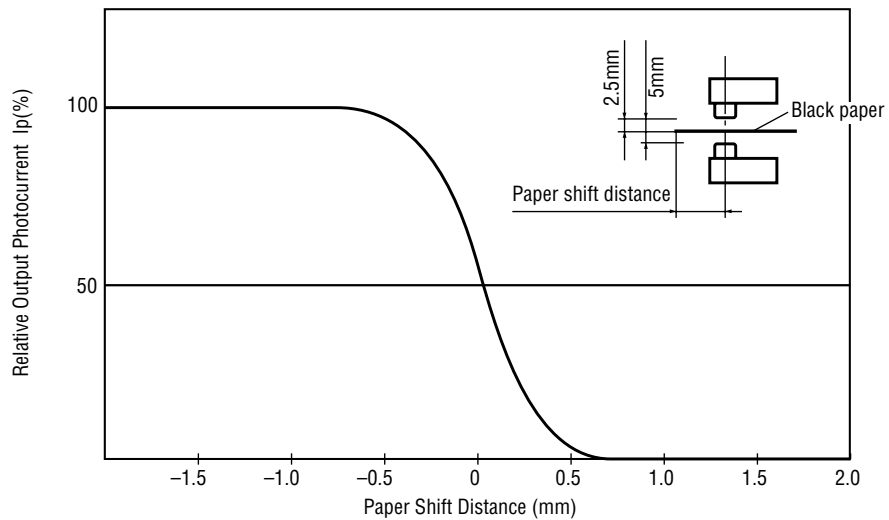
- OPU864CP—OPU850CP, OPU865CP—OPU850CP Switching Time vs. Load Resistance



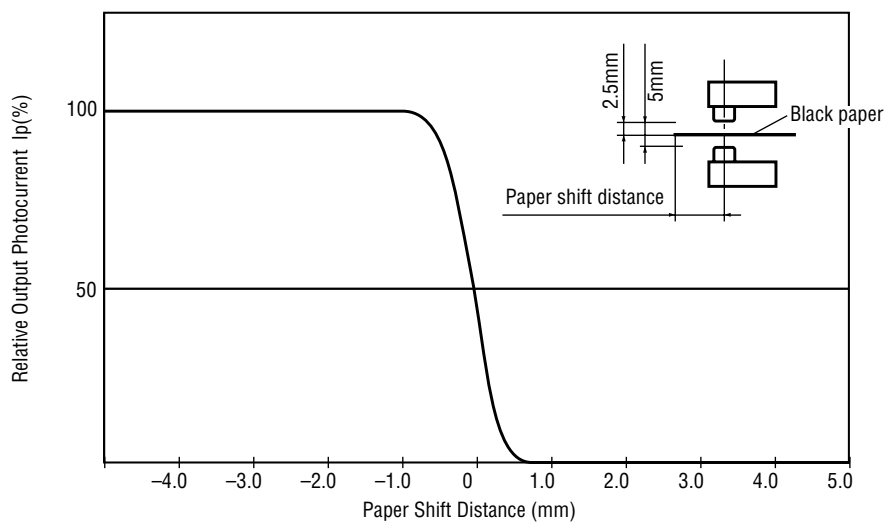
- OPU864CP—OPU852CP, OPU865CP—OPU852CP Switching Time vs. Load Resistance



- **OPU864CP Paper Shift Distance vs. Output photocurrent**



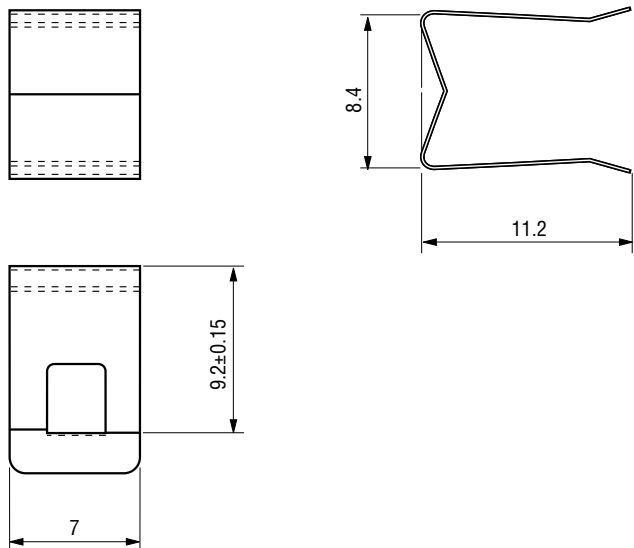
- **OPU865CP Paper Shift Distance vs. Output photocurrent**



OPTION PARTS

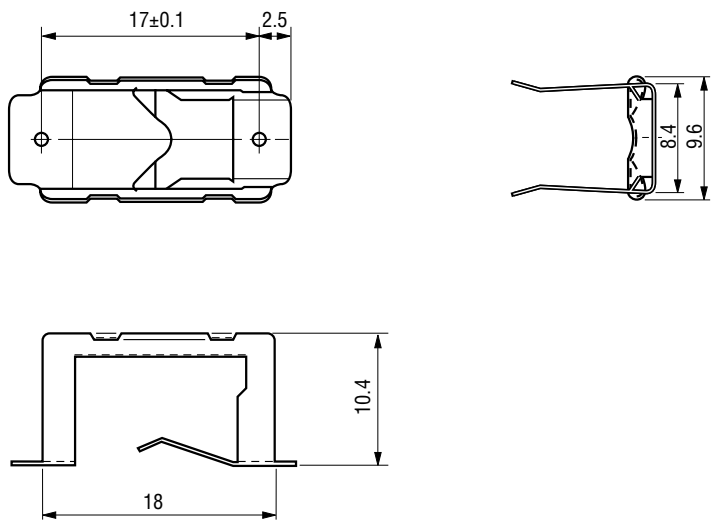
• Sensor Holder A Type Dimension

(Unit: mm)



• Sensor Holder B Type Dimension

(Unit: mm)



Recommended Connector for Capsule Sensor (female connector)

Product Name	Type	Maker
Connector	IL—Y—3S—S15C3	Japan Aviation Electronics Ind., Ltd.