

# OKI electronic components

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## OPU864CP, OPU865CP

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### Photo capsule with Slit

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#### 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).

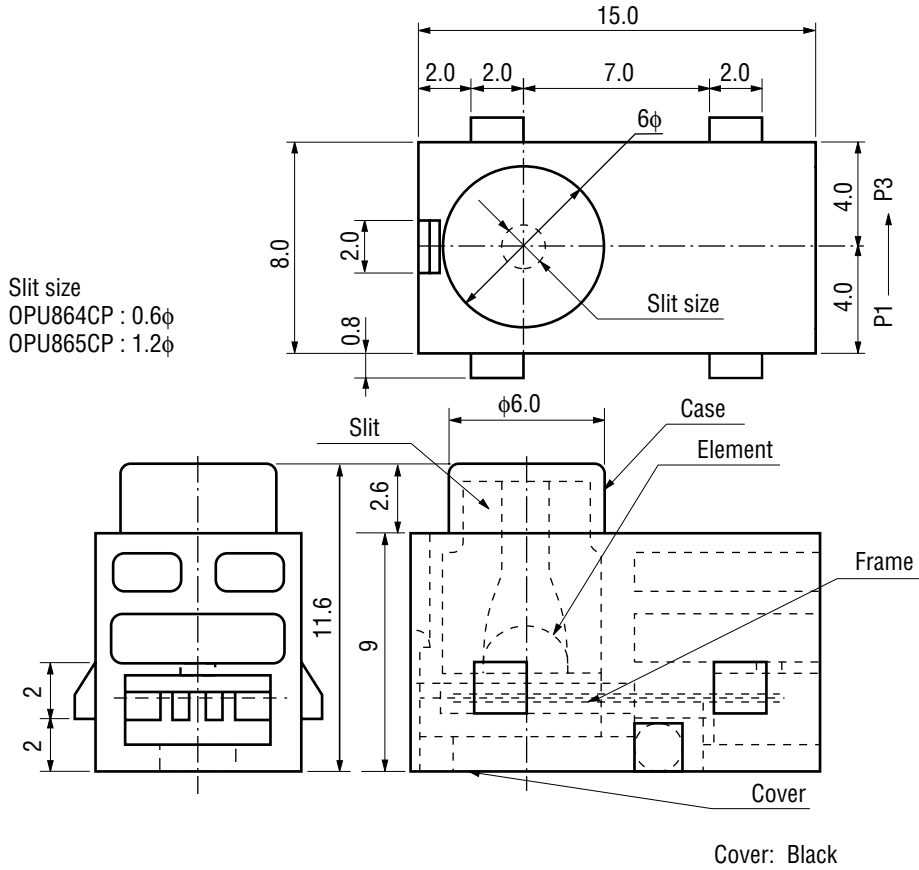
#### APPLICATIONS

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

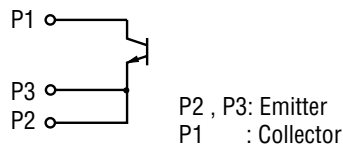
**PIN CONFIGURATION**

- 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	$V_{ECO}$	$T_a=25^{\circ}C$	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**

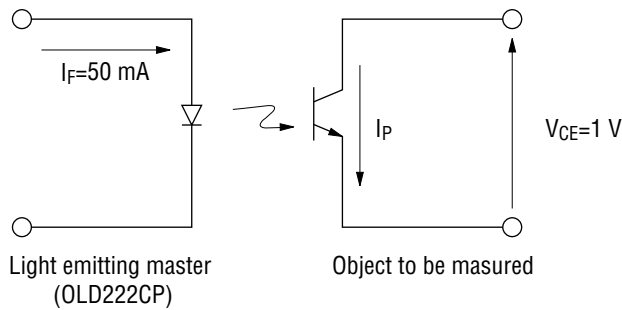
(Ambient Temperature  $T_a=25^{\circ}C$ )

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

\* : Distance between sensors

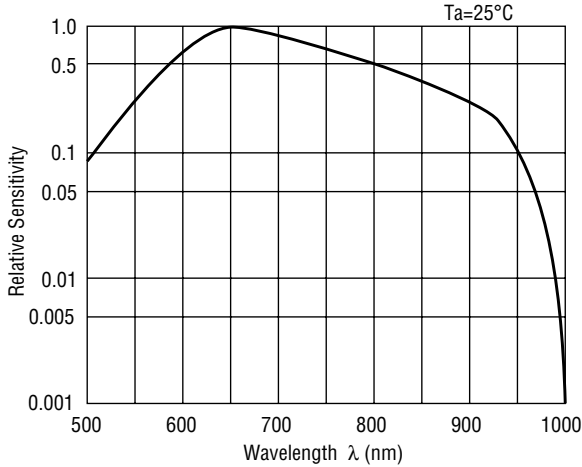
\*\* : Measuring circuit

Measuring circuit



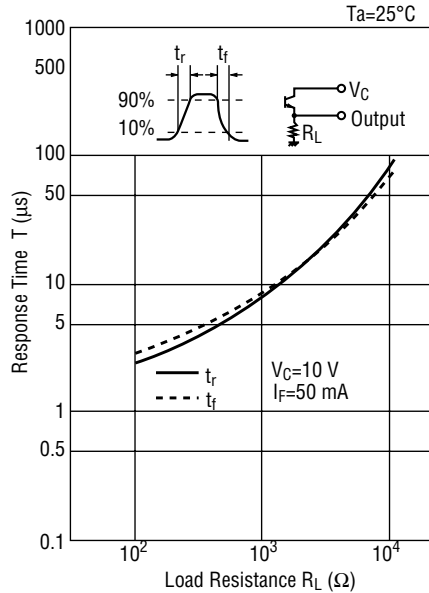
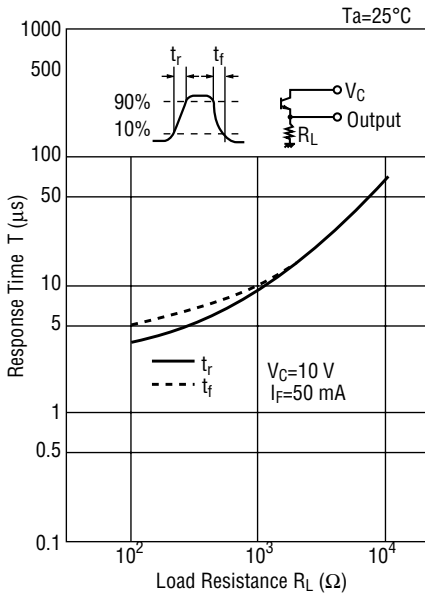
**TYPICAL CHARACTERISTICS**

- OPU864CP, OPU865CP Spectral Sensitivity

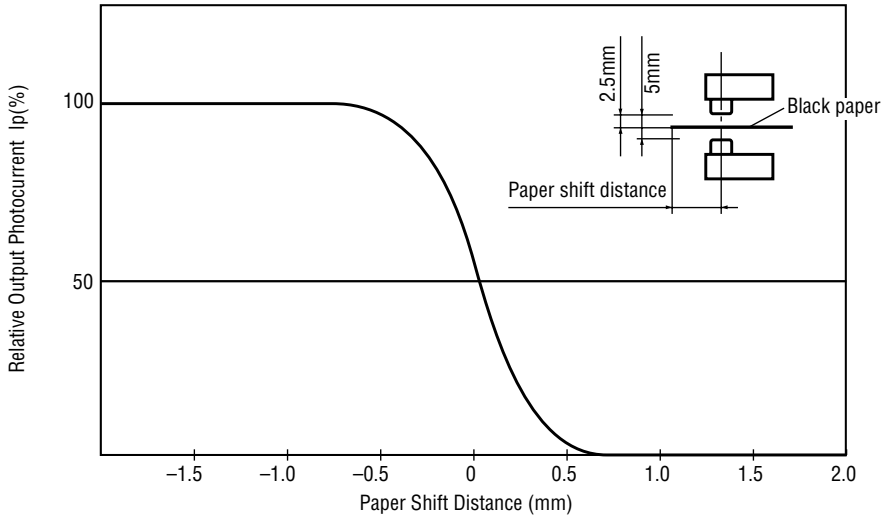


- OPU864CP—OPU850CP, OPU865CP—OPU850CP Switching Time vs. Load Resistance

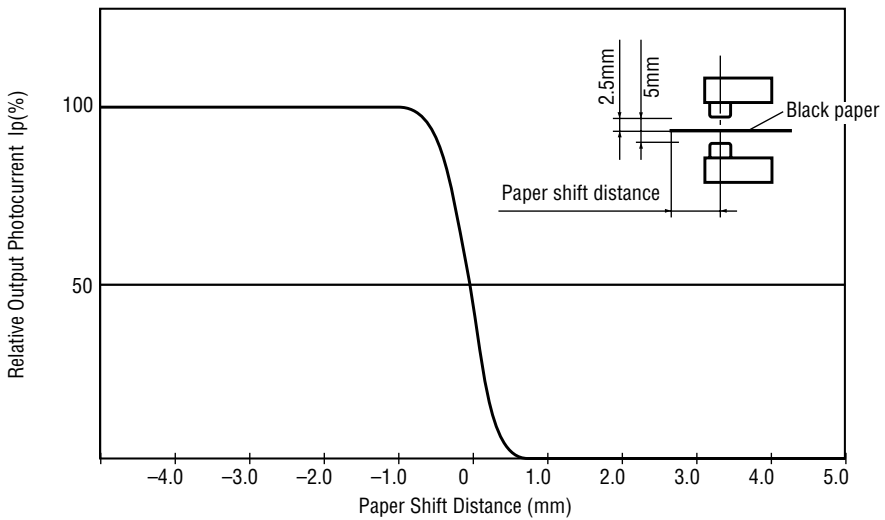
- OPU864CP—OPU852CP, OPU865CP—OPU852CP Switching Time vs. Load Resistance



• OPU864CP Paper Shift Distance vs. Output photocurrent



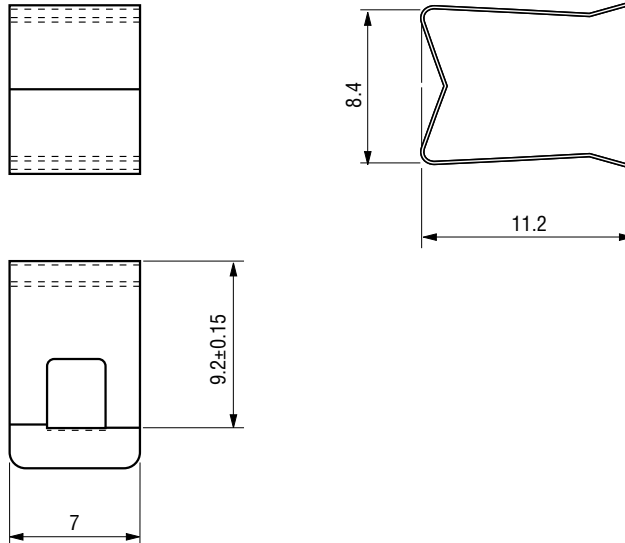
• OPU865CP Paper Shift Distance vs. Output photocurrent



**OPTION PARTS**

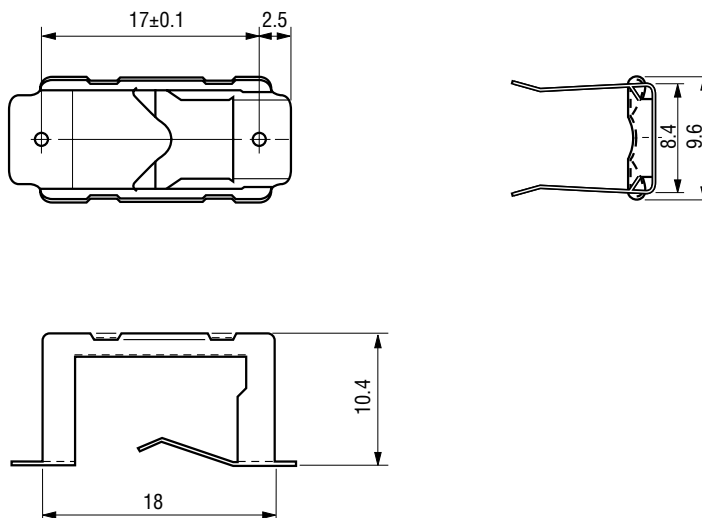
• **Sensor Holder A Type Dimension**

(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.