

OKI electronic components

OLD122CP3, OLD222CP

LED Capsule

GENERAL DESCRIPTION

The OLD122CP3/OLD222CP are sensors that are most suited to paper detection. For superior dustproof packaging and easy mounting, an infrared LED can be sealed (encapsulated) into a package with connectors.

FEATURES

- The light axis is positioned for efficient insertion into a LED capsules and a photo capsules.
- The sensor-unit element is protected from dust.
- The assembly and mount do not require.

APPLICATIONS

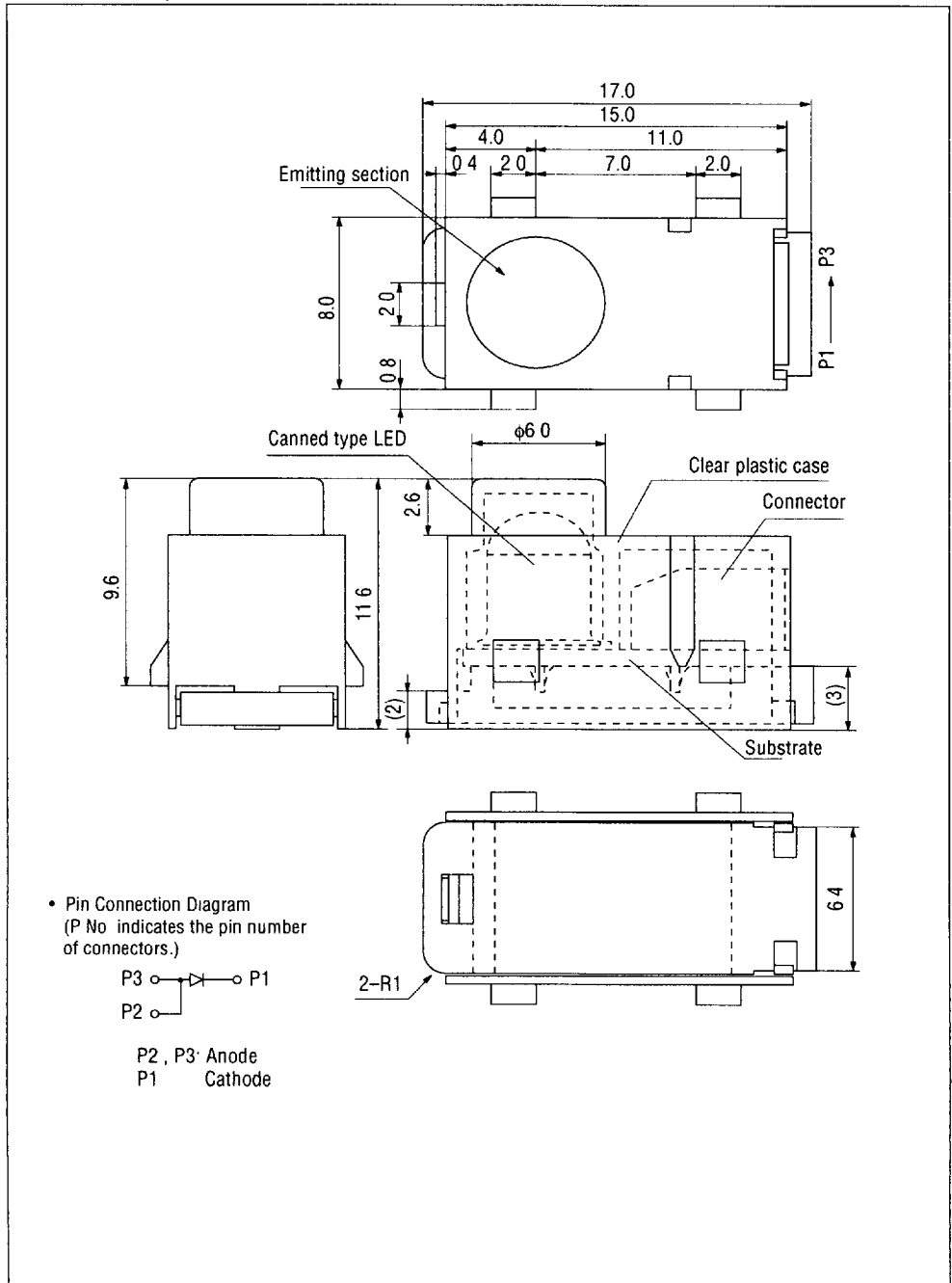
- Terminals for bank machines (ATM, etc.)
- Printers
- Copying machines
- Communications terminals (FAX, etc.)

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PIN CONFIGURATION

• OLD122CP3, OLD222CP

(Unit: mm)



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ABSOLUTE MAXIMUM RATINGS

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

Parameter	Symbol	Rating		Unit	Note
		OLD122CP3	OLD222CP		
Temperature Storage	T_{stg}	-20 to +80		$^\circ\text{C}$	—
Operating Temperature	T_{opr}	-10 to +60		$^\circ\text{C}$	—
DC Forward Current	I_F	100		mA	—
DC Forward Current Reduction Factor	—	1		mA/ $^\circ\text{C}$	$T_a=25^\circ\text{C}$ or More
Pulse Forward Current	I_{FM}	1		A	$t_w=100\ \mu\text{s}$, $T=10\ \text{ms}$
Pulse Forward Current Reduction Factor	—	10		mA/ $^\circ\text{C}$	$T_a=25^\circ\text{C}$ or More
Reverse Voltage	V_R	6		V	—
Power Dissipation	P_D	170	200	mW	—

ELECTRICAL CHARACTERISTICS

• OLD122CP3, OLD222CP

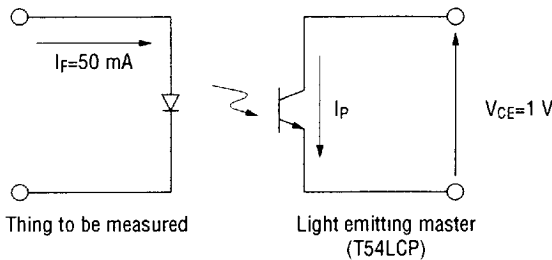
(Ambient Temperature $T_a=25^\circ\text{C}$)

Parameter	Symbol	Condition	OLD122CP3			OLD222CP			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward Voltage	V_F	$I_F=100\ \text{mA}$	—	1.3	1.7	—	1.55	2.0	V
Reverse Current	I_R	$V_R=6\ \text{V}$	—	—	10	—	—	10	μA
Wavelength at Peak Emission	λ_P	$I_F=100\ \text{mA}$	—	940	—	—	910	—	nm
Output Photo Current **	I_{P1}	$I_F=50\ \text{mA}$ $V_{CE}=1\ \text{V}$ $L^*=50\ \text{mm}$	1.45	—	5.6	5.5	—	20	mA
	I_{P2}	$I_F=50\ \text{mA}$ $V_{CE}=1\ \text{V}$ $L^*=200\ \text{mm}$	0.12	—	0.44	0.30	—	1.70	mA

* : Distance between sensors

** : Measuring circuit

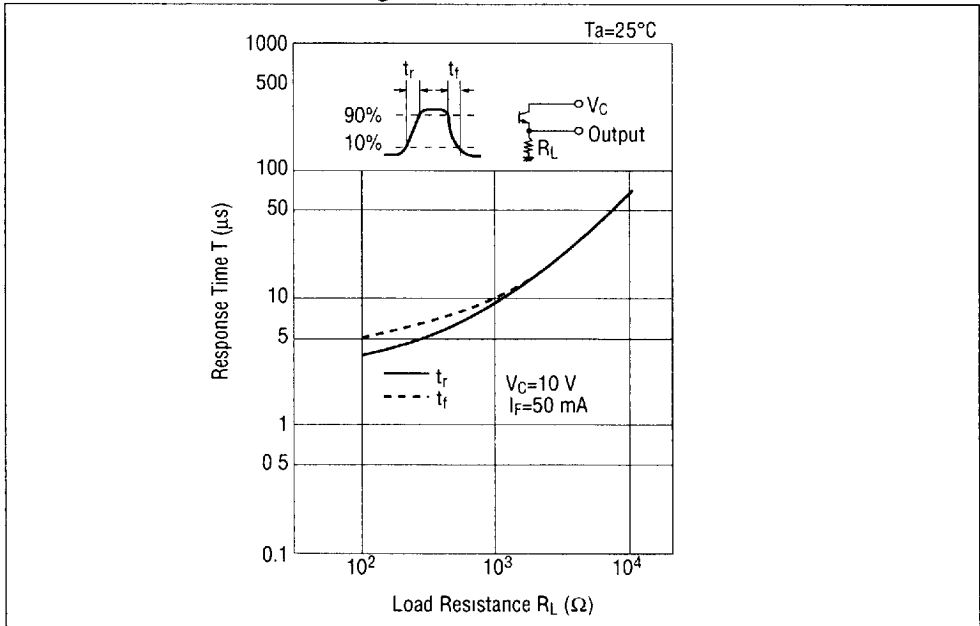
Measuring circuit



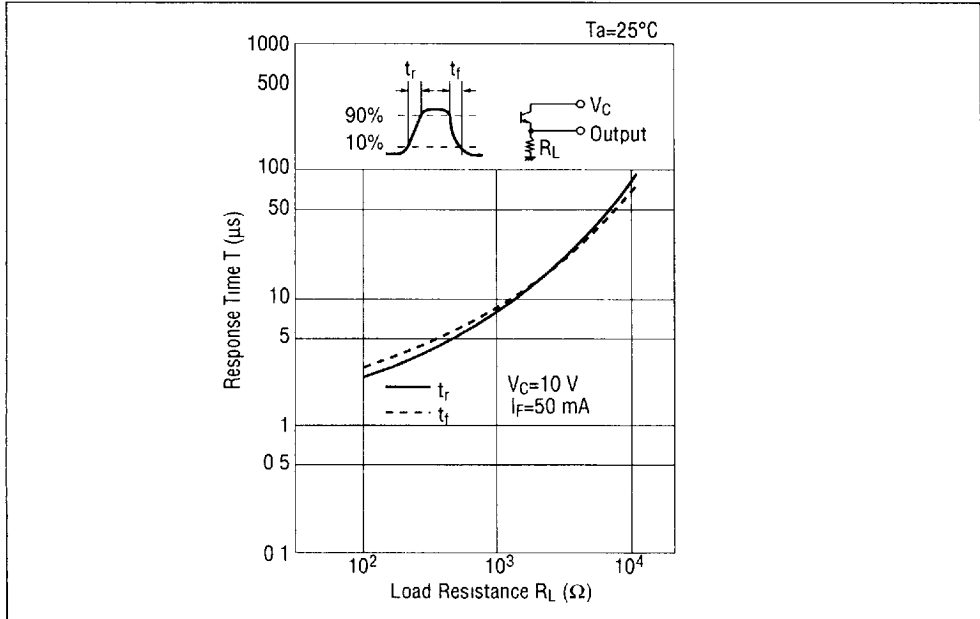
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TYPICAL CHARACTERISTIC

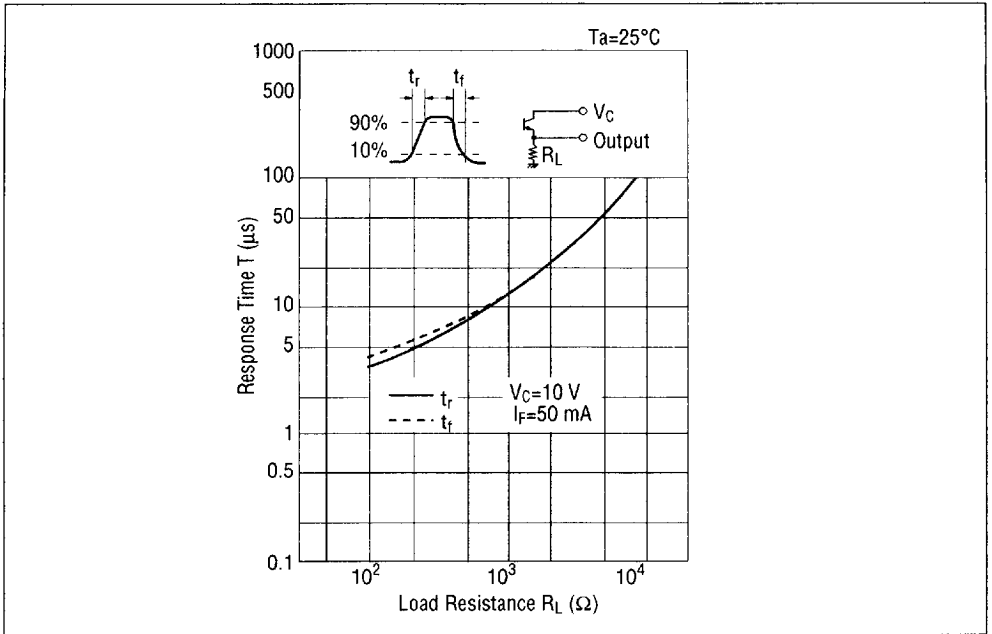
• **OLD122CP3—T36CP2 Switching Time vs. Load Resistance**



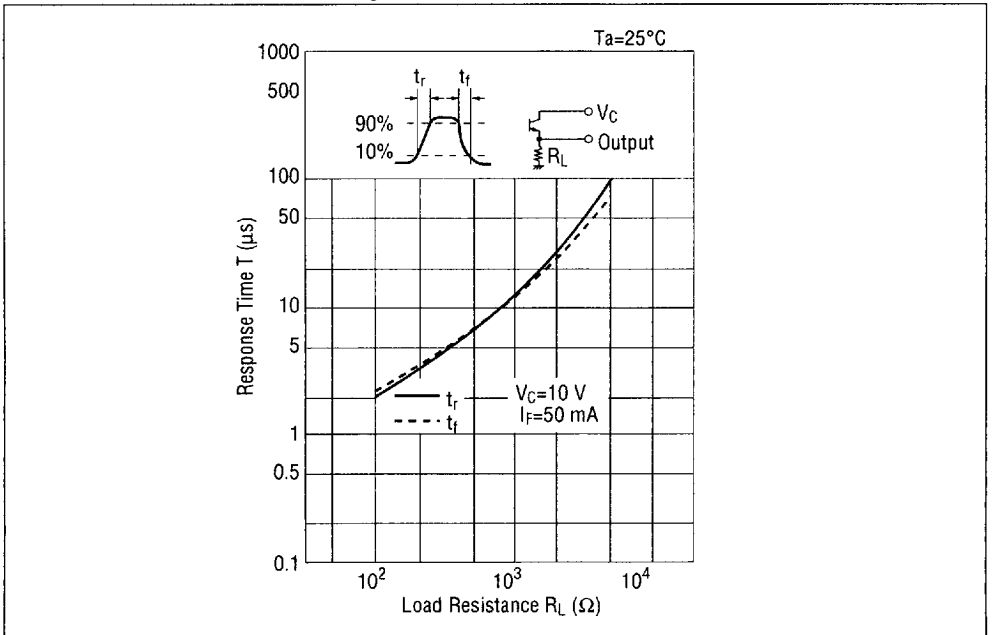
• **OLD222CP—T36CP2 Switching Time vs. Load Resistance**



• OLD122CP3—T54LCP Switching Time vs. Load Resistance



• OLD222CP—T54LCP Switching Time vs. Load Resistance

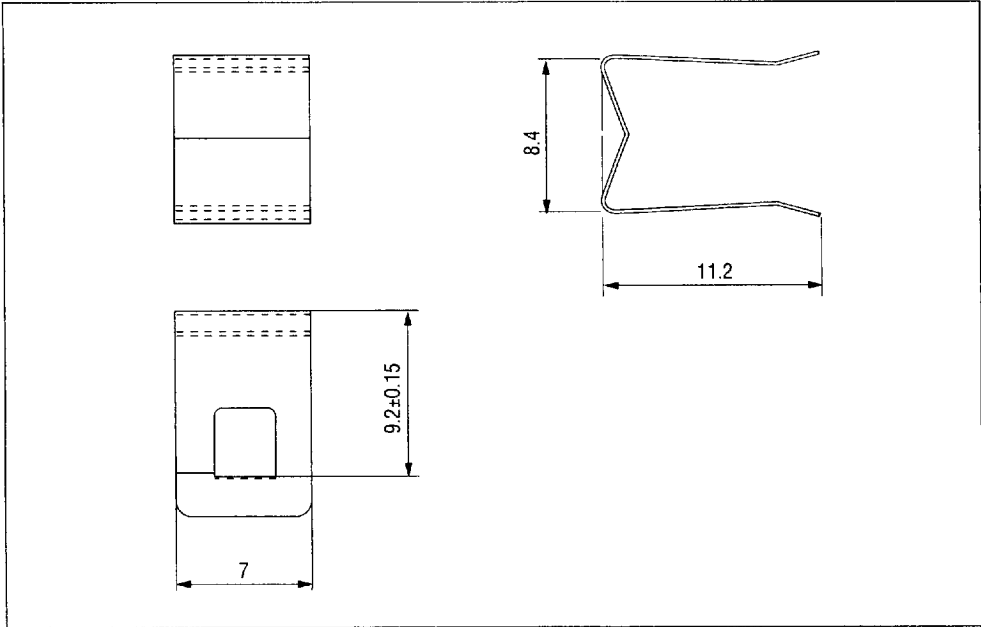


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OPTION PARTS

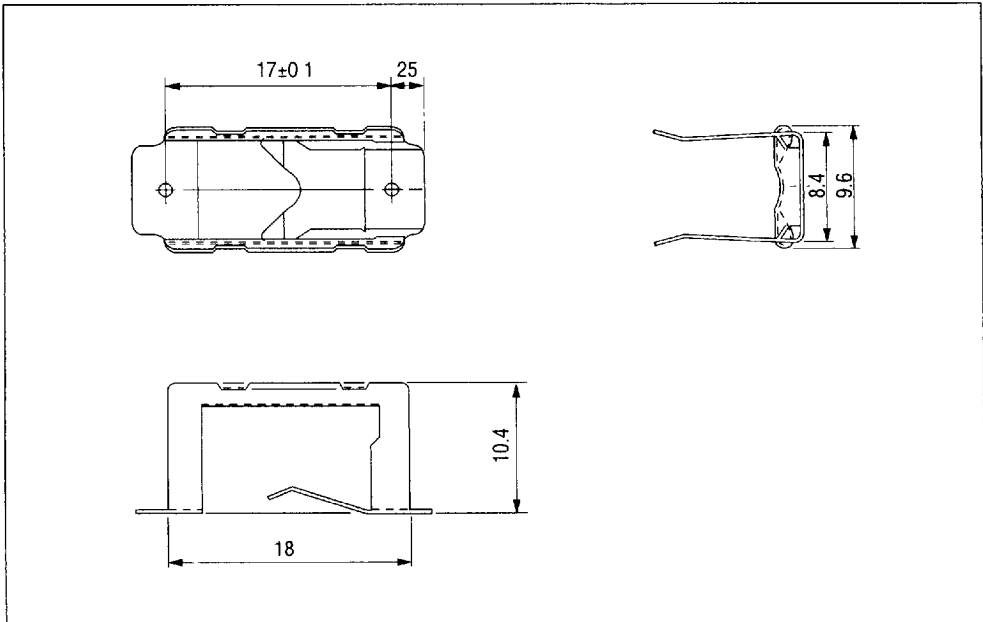
• Sensor Holder A Type Dimension

(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	Kokuudensi

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