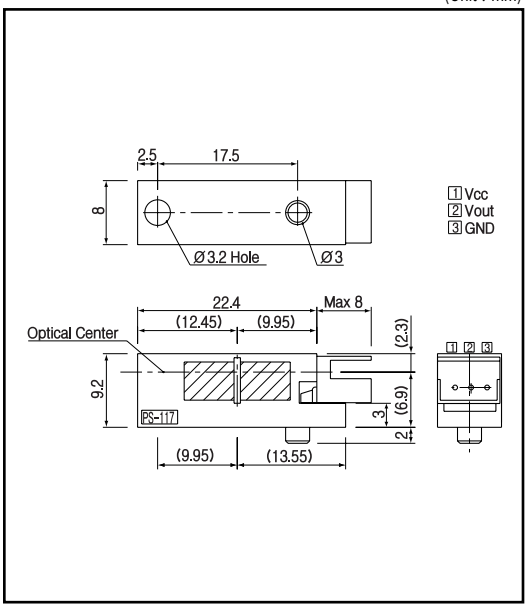
PS - 117L· PS - 117D

The PS - 117 photo switches are composed of a modulated infrared emitting diode at the light - emitting side and a modulated photo IC (in which a photodiode,signal processing circuit,constant voltage circuit and modulation circuit are integrated) at the light receiving side.
PS - 117L : High level output at shielding
PS - 117D : Low level output at shielding

DIMENSIONS (Unit : mm)



FEATURES

- High - speed response(0.5m sec.)
- Compact and reducing the installation space
- Adjustable of detecting distance
- Possible to keep away from dust because of the detect side is flat
- Resistible to exterior light because of composed of modulate

APPLICATIONS

- Copiers
- Facsimiles

MAXIMUM RATINGS

(Ta=25℃)

Item	Symbol	Rating	Unit
Supply voltage	V_{CC}	5.5	V
Output voltage *1	V_O	12	V
Low level output current *2	I_{OL}	30	mA
Output transistor power dissipation	P_O	30	mW
Operating temp. *3*4	Topr.	−10 +60	℃
Storage temp. *3*4	Tstg.	−20 +70	℃

*1. Output transistor : VCE *2. Output transistor : IC *3. No icebound or dew
*4. The connector shall be inserted or pulled out at normal temperature.

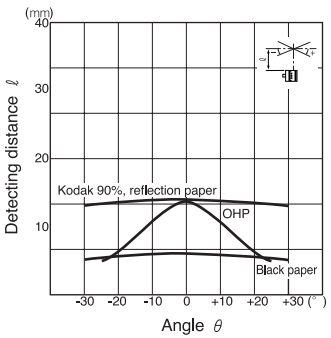
ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25℃)

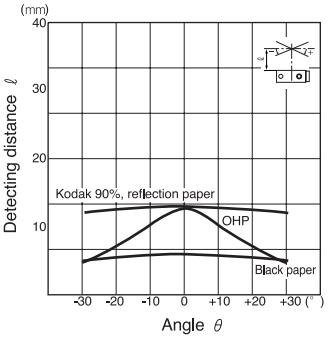
Item	Symbol	Conditions		Min.	Typ.	Max.	Unit.
Supply voltage	V_{CC}			4.75		5.25	V
Low level output voltage	V_{OL}	V_{CC}=5V,I_{OL}=10mA				0.4	V
High level output voltage	V_{OH}	V_{CC}=5V,R_L=1kΩ		4.0			V
Supply current	I_{CC}	V_{CC}=5V			16		mA
Minimum detecting distance	L_{DS}	V_{CC}=5V,R_L=1kΩ	Kodak 90%			0.5	mm
			Black paper			1.5	mm
Maximum detecting distance	L_{DL}		Kodak 90%	6.5			mm
			Black paper	5.5			mm
Non - detecting distance	L_{NS}		Kodak 90%			20	mm
Response speed	t_{PLH}/t_{PHL}	V_{CC}=5V,R_L=1kΩ				0.5	ms
Exterior light endure	E_V	V_{CC}=5V,R_L=1kΩ		3,000			lx
Output state				NPN open collector			

PS - 117L/D

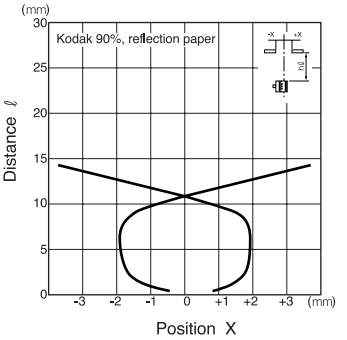
Detecting distance Vs. Angle



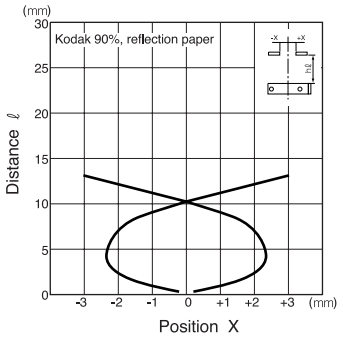
Detecting distance Vs. Angle



Distance Vs. Position



Distance Vs. Position



Relative distance Vs. Ambient temperature