

Si PIN photodiode

S7379-01, S6695-01, S6058

Quadrant photodiode / plastic package



These Si PIN photodiodes have a quadrant element molded into clear plastic packages, and feature high sensitivity, low noise and low cross-talk. Custom-designed devices (with different element shapes, number of elements, characteristics and packages) are also available to meet your specific needs. Feel free to contact our sales office.

Features

- Clear plastic package (4 × 4.8 mm)
- High sensitivity
- Uniform element characteristic
- Low cross-talk
- Low noise

Applications

- Signal readout for CD, DVD and MO (Magneto Optical) disc
- Laser beam alignment
- Position detection, etc.

■ General ratings / Absolute maximum ratings

Type No.	Dimensional outline	Active area (mm)	Elements gap (μm)	Absolute maximum ratings		
				Reverse voltage V_R Max. (V)	Operating temperature T_{opr} ($^{\circ}\text{C}$)	Storage temperature T_{stg} ($^{\circ}\text{C}$)
S7379-01	①	$\phi 1.0/4$ element	20	20	-25 to +85	-40 to +100
S6695-01	②	$2.0 \times 2.0/4$ element	15			
S6058	③	$0.6 \times 1.2/4$ element	10			

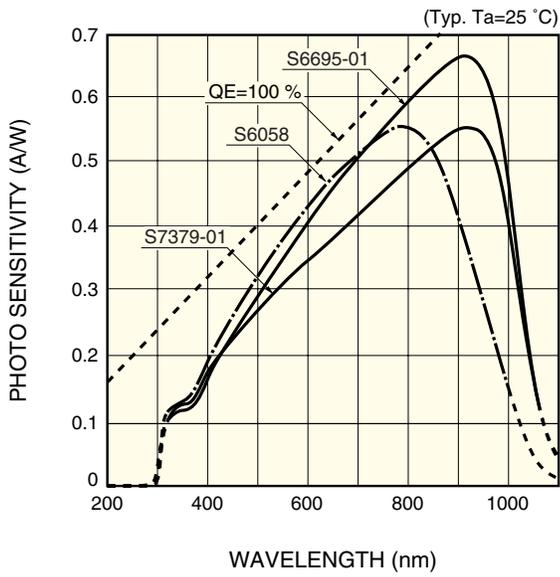
■ Electrical and optical characteristics (Typ. $T_a=25^{\circ}\text{C}$, unless otherwise noted, per 1 element)

Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S		Dark current I_D $V_R=10\text{ V}$ All elements		Temp. coefficient of I_D T_{CID} (times/ $^{\circ}\text{C}$)	Cut-off frequency f_c $V_R=10\text{ V}$ $R_L=50\ \Omega$ $\lambda=830\text{ nm}$ (MHz)	Terminal capacitance C_t $V_R=10\text{ V}$ $f=1\text{ MHz}$ (pF)	NEP $V_R=10\text{ V}$ ($\text{W}/\text{Hz}^{1/2}$)
			$\lambda=\lambda_p$ (A/W)	$\lambda=410\text{ nm}$ (A/W)	Typ. (nA)	Max. (nA)				
S7379-01	320 to 1060	900	0.55	0.19	0.04	0.2	1.15	80	1	6.5×10^{-15}
S6695-01			0.65	0.18	0.1^{*1}	1^{*1}		40^{*1}	3^{*1}	$8.7 \times 10^{-15\ *1}$
S6058	320 to 1000	800	0.55	0.21	0.04^{*2}	0.2^{*2}		150^{*2}	1^{*2}	$6.5 \times 10^{-15\ *2}$

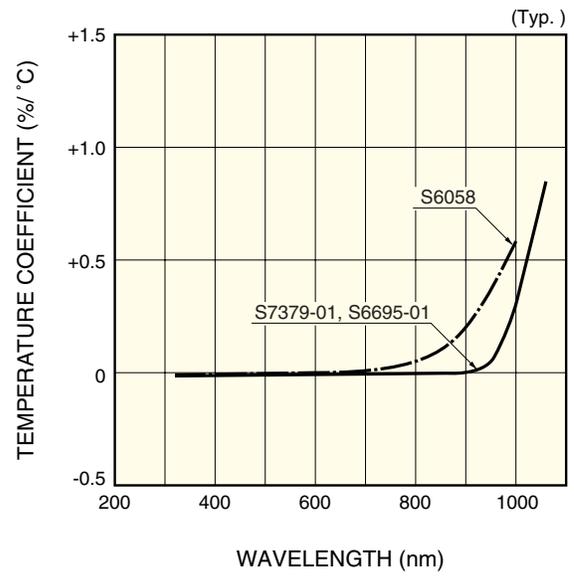
*1: $V_R=5\text{ V}$

*2: $V_R=3\text{ V}$

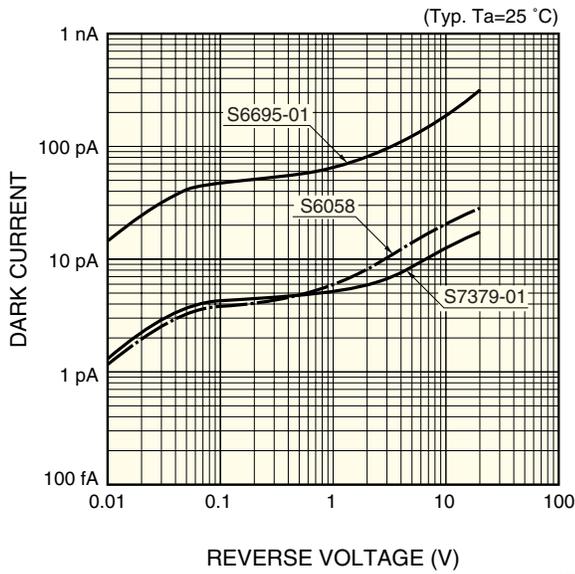
■ Spectral response



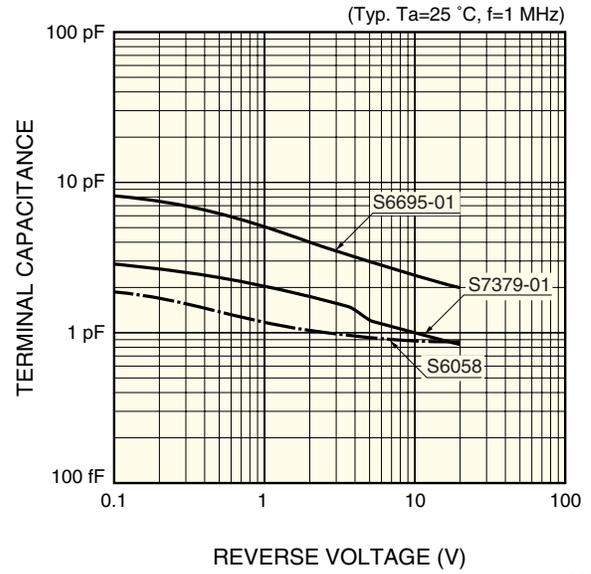
■ Photo sensitivity temperature characteristics



■ Dark current vs. reverse voltage

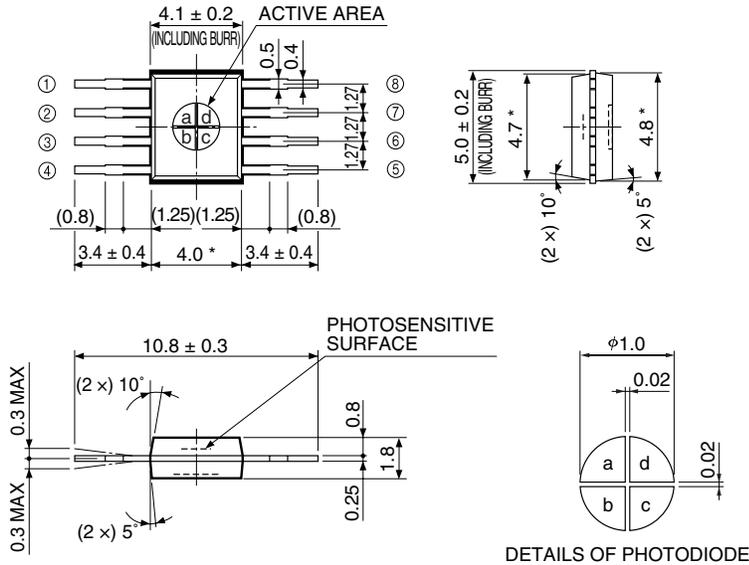


■ Terminal capacitance vs. reverse voltage



■ Dimensional outlines (unit: mm, tolerance unless otherwise noted: ± 0.1)

① S7379-01

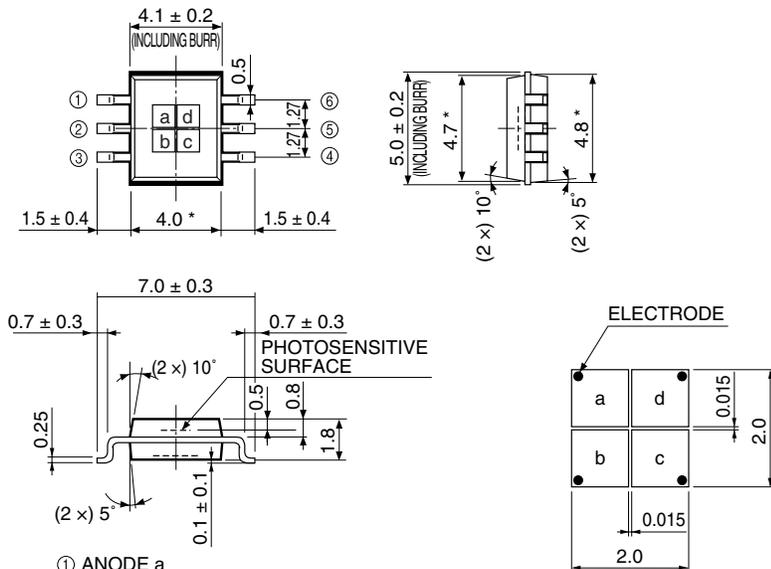


- ① NC
- ② ANODE a
- ③ ANODE b
- ④ CATHODE COMMON
- ⑤ NC
- ⑥ ANODE c
- ⑦ ANODE d
- ⑧ CATHODE COMMON

Chip position accuracy with respect to the package dimensions marked *
 $X, Y \leq \pm 0.2$
 $\theta \leq \pm 2^\circ$

KMPDA0137EA

② S6695-01

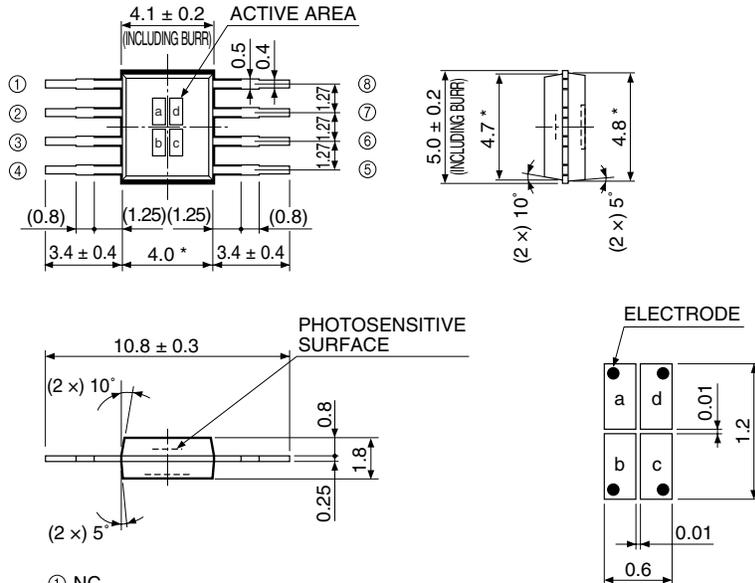


- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b
- ④ ANODE c
- ⑤ CATHODE COMMON
- ⑥ ANODE d

Chip position accuracy with respect to the package dimensions marked *
 $X, Y \leq \pm 0.2$
 $\theta \leq \pm 2^\circ$

KMPDA0121EA

③ S6058



- ① NC
- ② ANODE a
- ③ ANODE b
- ④ CATHODE COMMON
- ⑤ NC
- ⑥ ANODE c
- ⑦ ANODE d
- ⑧ CATHODE COMMON

DETAILS OF PHOTODIODE

Chip position accuracy with respect to the package dimensions marked *
 $X, Y \leq \pm 0.2$
 $\theta \leq \pm 2^\circ$

KMPDA0007EB