

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 VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S7379-01	①	φ1.0/4 element	20	20	-25 to +85	-40 to +100
S6695-01	②	2.0 × 2.0/4 element	15			
S6058	③	0.6 × 1.2/4 element	10			

■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted, per 1 element)

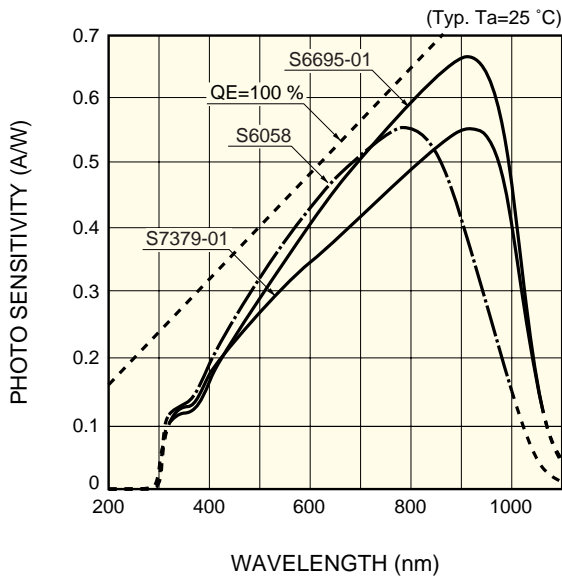
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photo sensitivity S λ=λp (A/W)	Dark current ID All elements		Temp. coefficient of ID TcID (times/°C)	Cut-off frequency fc RL=50 Ω λ=830 nm (MHz)	Terminal capacitance Ct f=1 MHz (pF)	NEP (W/Hz ^{1/2})
				Typ. (nA)	Max. (nA)				
S7379-01	320 to 1060	900	0.55	0.04 *1	0.2 *1	1.15	80 *1	1 *1	6.5 × 10 ⁻¹⁵ *1
S6695-01			0.65	0.1 *2	2 *2		40 *2	3 *2	8.7 × 10 ⁻¹⁵ *2
S6058	320 to 1000	800	0.55	0.04 *3	0.2 *3		150 *3	1 *3	6.5 × 10 ⁻¹⁵ *3

*1: VR=10 V

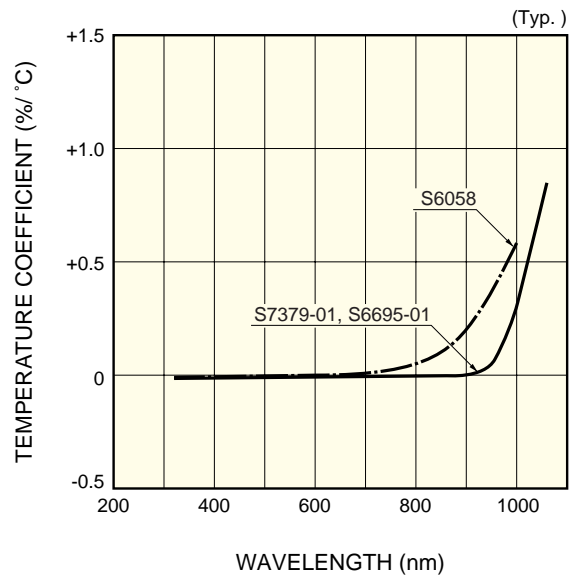
*2: VR=5 V

*3: VR=3 V

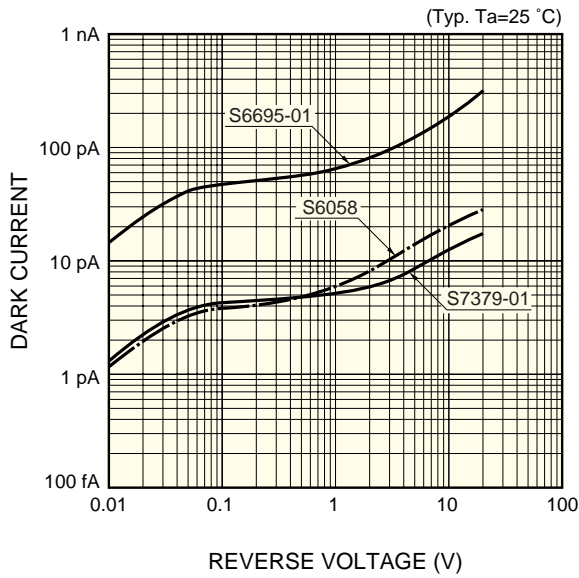
■ Spectral response



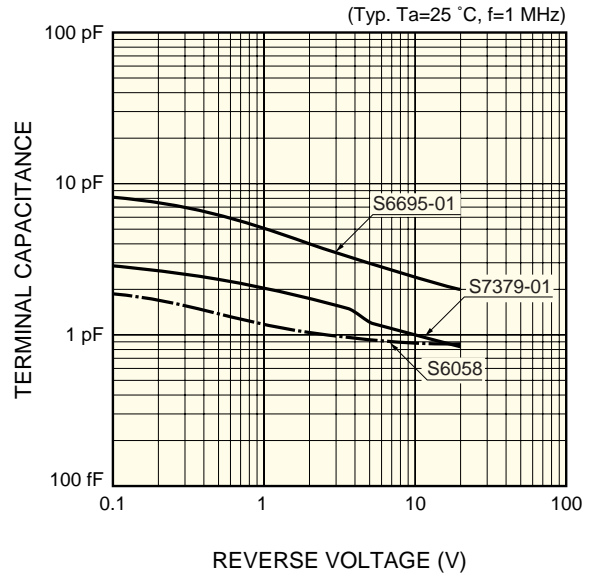
■ Photo sensitivity temperature characteristics



■ Dark current vs. reverse voltage

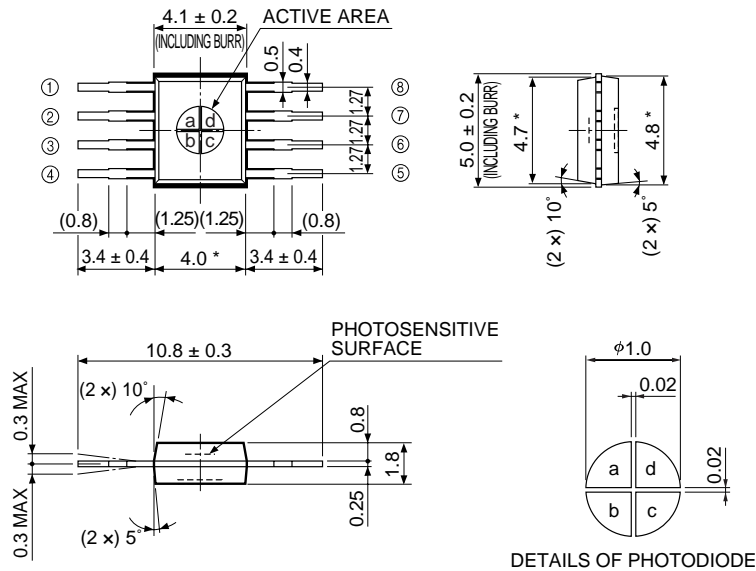


■ Terminal capacitance vs. reverse voltage



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

① S7379-01

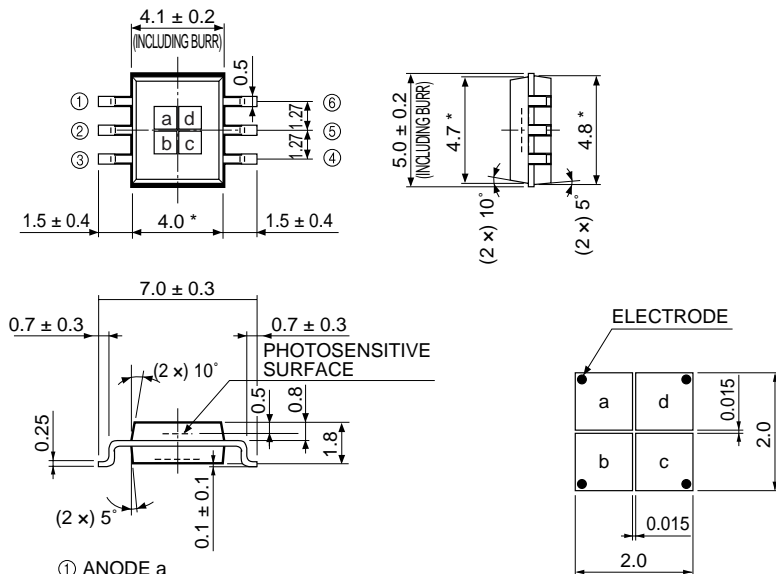


- ① NC
- ② ANODE a
- ③ ANODE b
- ④ CATHODE COMMON
- ⑤ NC
- ⑥ ANODE c
- ⑦ ANODE d
- ⑧ CATHODE COMMON

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

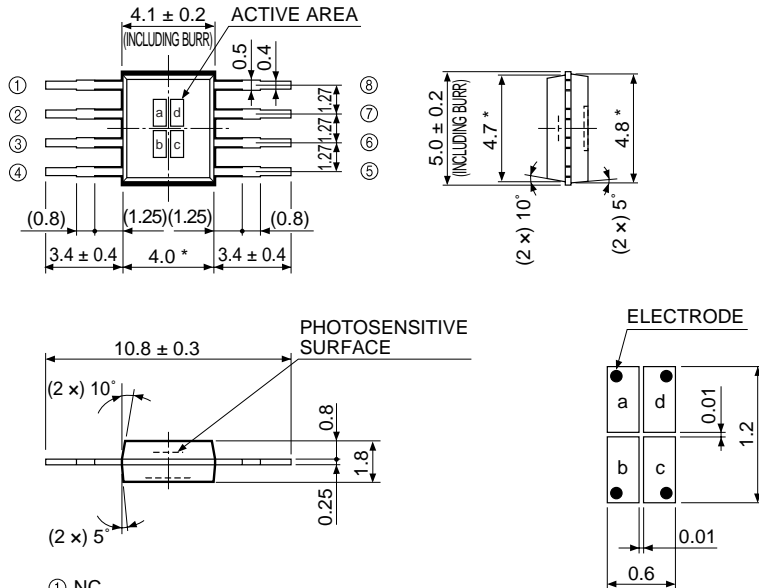


- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b
- ④ ANODE c
- ⑤ CATHODE COMMON
- ⑥ ANODE d

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