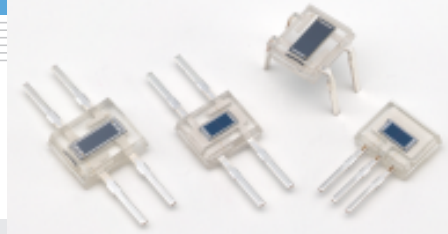


Si PIN photodiode

S2721-02, S3096-02, S4204, S8703

Dual-element, plastic package photodiode



S2721-02, S3096-02, S4204 and S8703 are dual-element Si PIN photodiodes molded into small plastic packages. Having high sensitivity and low noise, these photodiodes have very low cross-talk between the elements.

Custom devices (with different element shapes, number of elements, characteristics and packages) are also available to meet your specific needs. Please feel free to contact our sales office.

Features

- High sensitivity
- Uniform element sensitivity
- Low cross-talk
- Low noise

Applications

- CD, DVD, MO (Magneto-Optical disc) signal pickups
- Laser beam alignment
- Various position detection applications

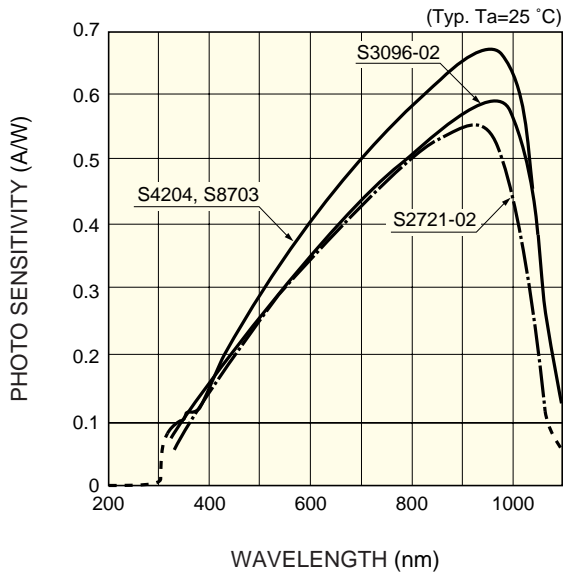
General ratings / Absolute maximum ratings

Type No.	Dimensional outline	Active area (mm)	Element gap (μm)	Absolute maximum ratings		
				Reverse voltage V_R Max. (V)	Operating temperature T_{opr} ($^{\circ}\text{C}$)	Storage temperature T_{stg} ($^{\circ}\text{C}$)
S2721-02	①	1 × 3 / 2 elements	5	20	-25 to +85	-40 to +100
S3096-02	②	1.2 × 3 / 2 elements	30			
S4204	③	1 × 2 / 2 elements	20			
S8703	④					

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

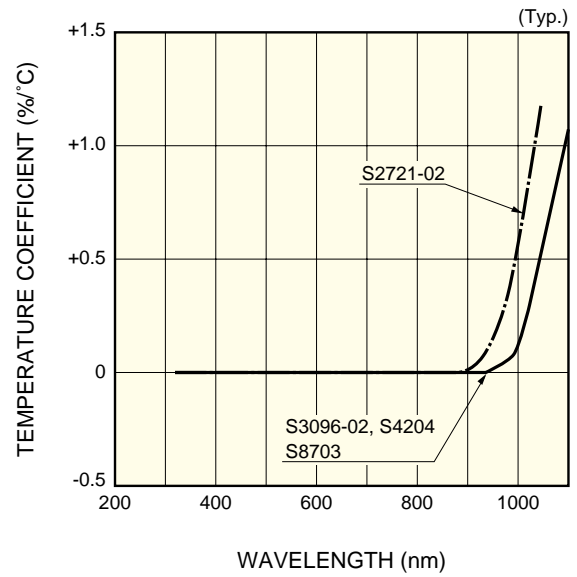
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity $\lambda=\lambda_p$ (A/W)	Dark current I_D $V_R=10\text{ V}$ all elements		Temp. coefficient of I_D T_{CID} (times/ $^{\circ}\text{C}$)	Cut-off frequency f_c $V_R=10\text{ V}$ $R_L=50\ \Omega$ $\lambda=780\text{ nm}$ -3 dB (MHz)	Terminal capacitance C_t $V_R=10\text{ V}$ $f=1\text{ MHz}$ (pF)	NEP $V_R=10\text{ V}$ ($\text{W}/\text{Hz}^{1/2}$)
				Typ. (nA)	Max. (nA)				
S2721-02	320 to 1060	900	0.56	0.1	2.0	1.15	50	5	6.4×10^{-15}
S3096-02	320 to 1100	960	0.58	0.05	0.5		25		7.2×10^{-15}
S4204			0.65	0.1	1.0		30	3	8.7×10^{-15}
S8703									

■ Spectral response



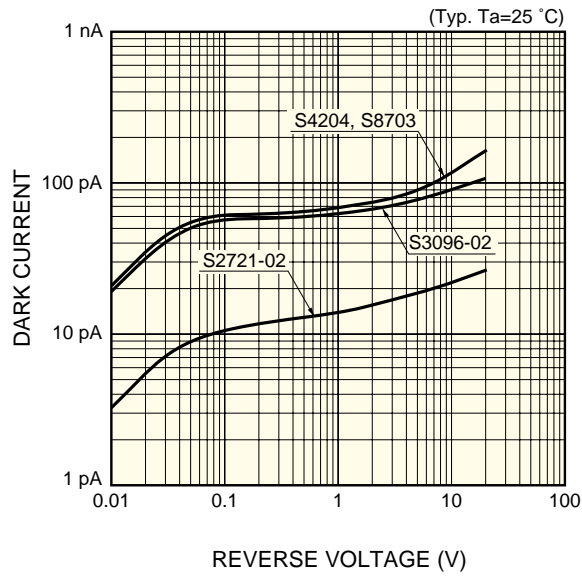
KMPDB0134EB

■ Photo sensitivity temperature characteristics



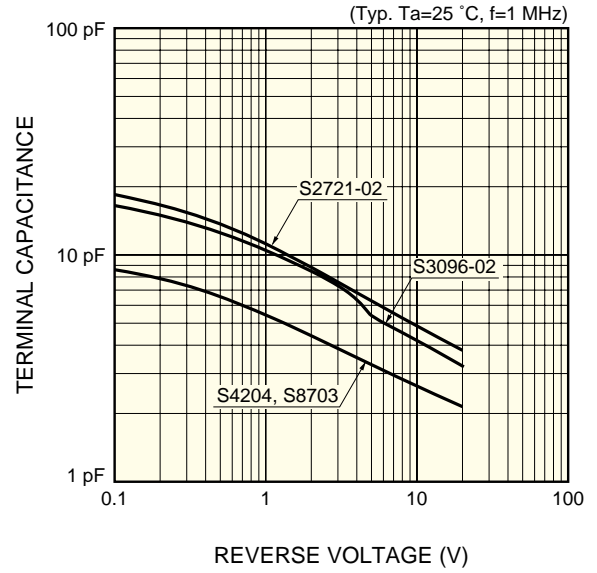
KMPDB0135EC

■ Dark current vs. reverse voltage



KMPDB0136EB

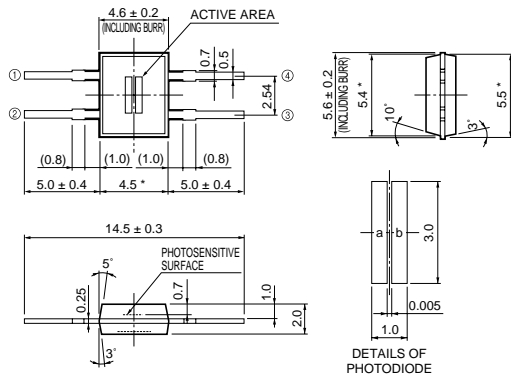
■ Terminal capacitance vs. reverse voltage



KMPDB0137EB

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

① S2721-02

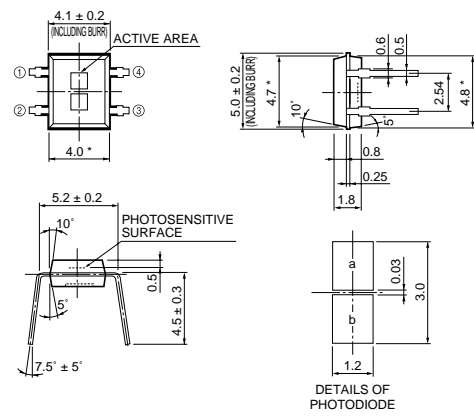


- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b
- ④ CATHODE COMMON

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

KMPDA0118EA

② S3096-02

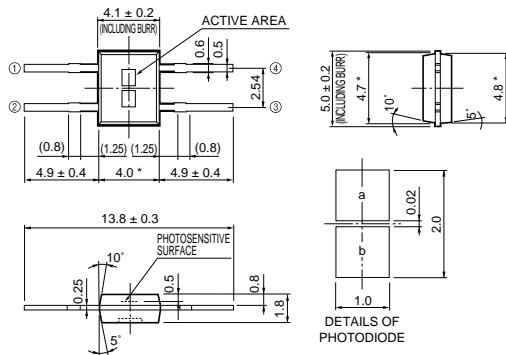


- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b
- ④ CATHODE COMMON

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

KMPDA0119EA

③ S4204

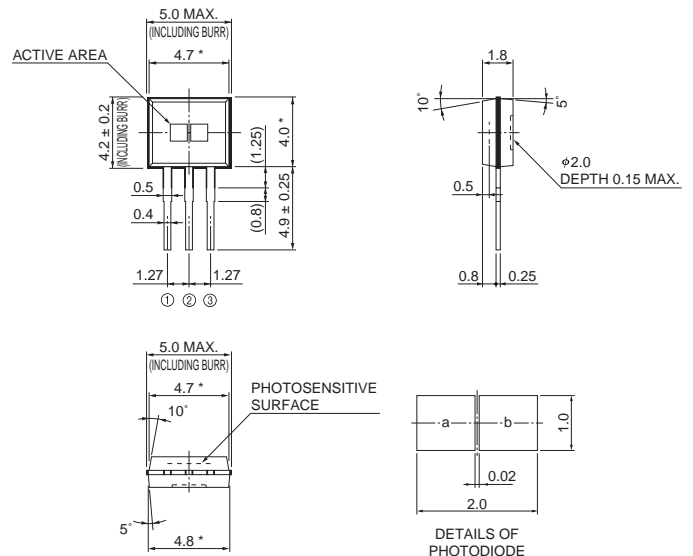


- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b
- ④ CATHODE COMMON

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

KMPDA0120EA

④ S8703



- ① ANODE a
- ② CATHODE COMMON
- ③ ANODE b

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

KMPDA0181EA