

Si PIN photodiode S2721-02, S3096-02, S4204

Dual-element, plastic package photodiode



S2721-02, S3096-02 and S4204 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} (°C)	Storage temperature T _{stg} (°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			

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

Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ _p (nm)	Photo sensitivity λ=λ _p (A/W)	Dark current I _D V _R =10 V all elements		Temp. coefficient of I _D T _{CID} (times/°C)	Cut-off frequency f _c V _R =10 V R _L =50 Ω λ=780 nm -3 dB (MHz)	Terminal capacitance C _t V _R =10 V f=1 MHz (pF)	NEP V _R =10 V (W/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

Spectral response

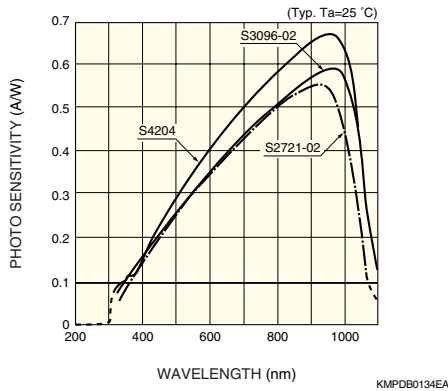
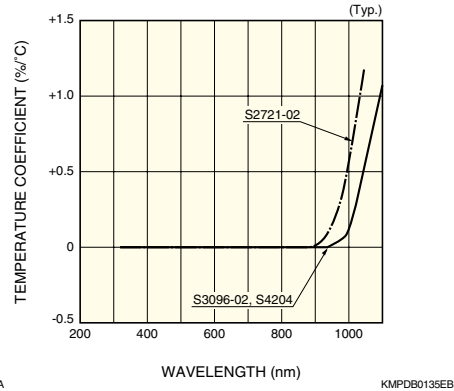
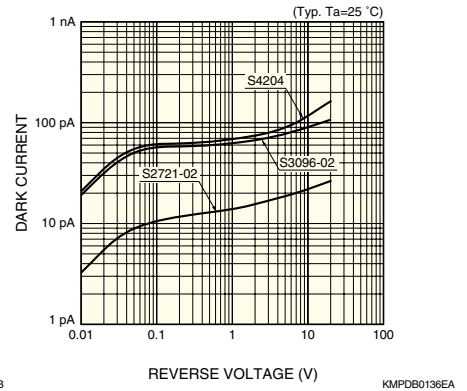


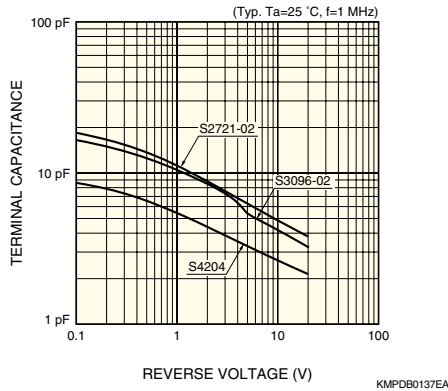
Photo sensitivity temperature characteristics



Dark current vs. reverse voltage

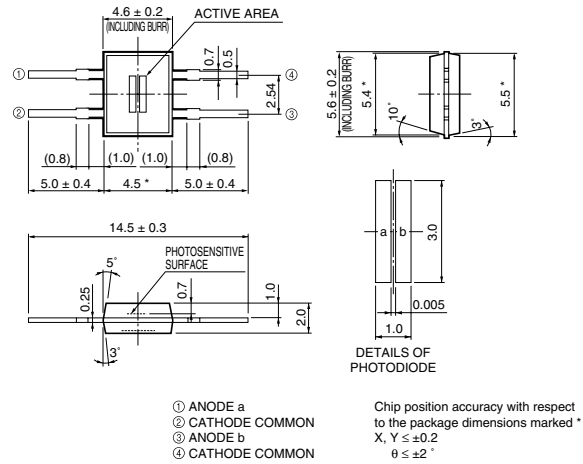


Terminal capacitance vs. reverse voltage

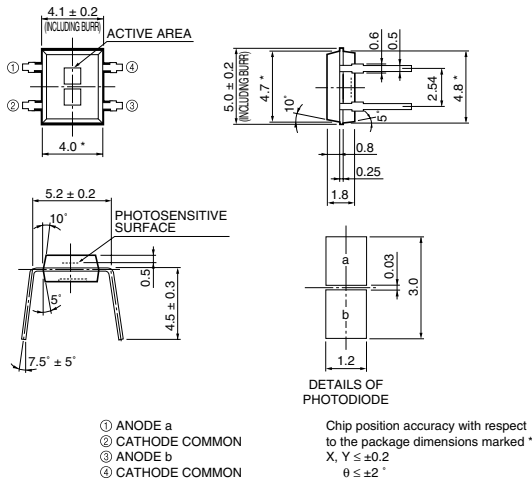


Dimensional outlines (unit: mm, tolerance unless otherwise noted: ±0.1)

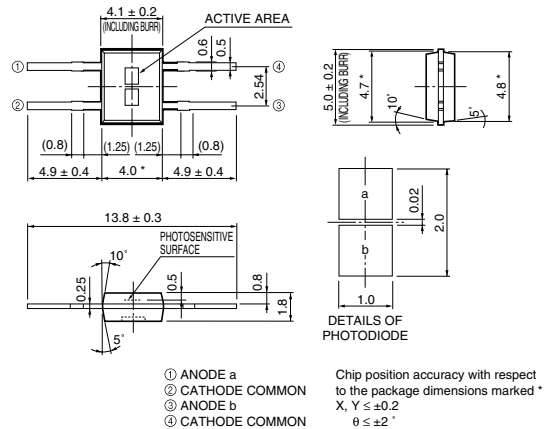
① S2721-02



② S3096-02



③ S4204



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