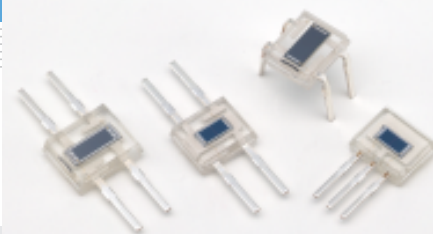


Si PIN photodiode

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

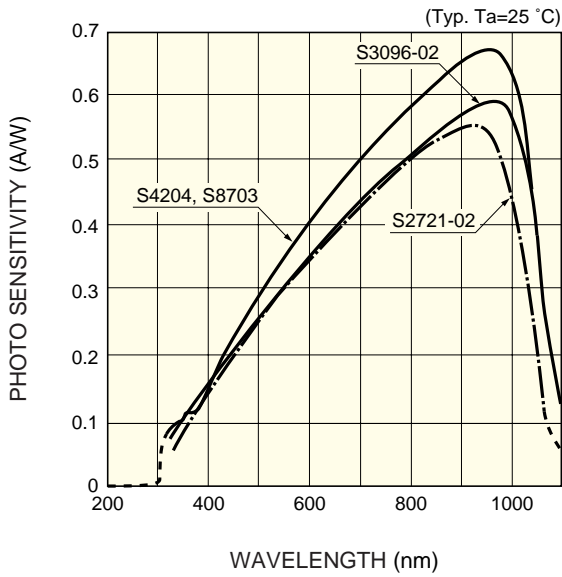
| Type No. | Dimensional outline | Active area (mm) | Element gap (μm) | Absolute maximum ratings | | |
|----------|---------------------|----------------------|----------------------------------|--------------------------------------|---|---|
| | | | | Reverse voltage V_R Max. (V) | Operating temperature 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 | | | 0.58 | 0.05 | 0.5 | | 25 | | 7.2×10^{-15} |
| S4204 | | 960 | 0.65 | 0.1 | 1.0 | | 30 | 3 | 8.7×10^{-15} |
| S8703 | | | | | | | | | |

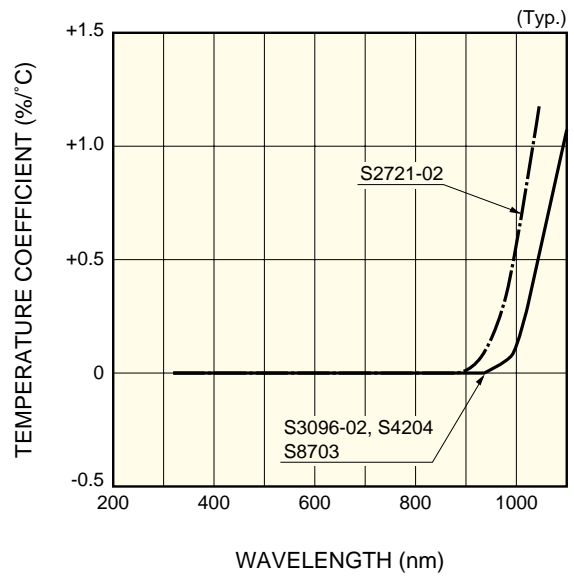
Si PIN photodiode S2721-02, S3096-02, S4204, S8703

■ Spectral response



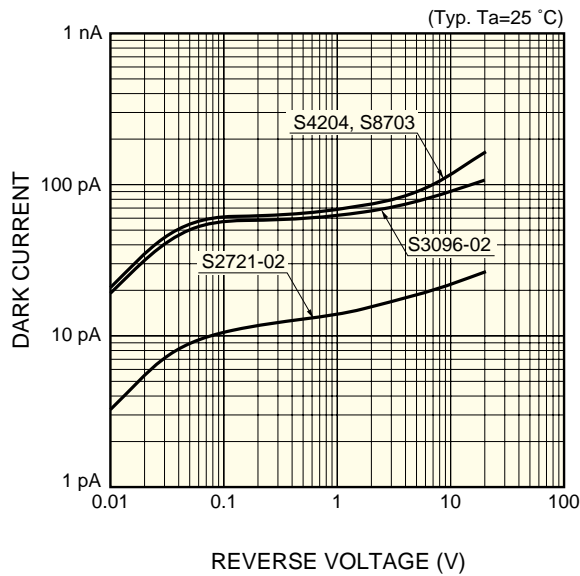
KMPDB0134EB

■ Photo sensitivity temperature characteristics



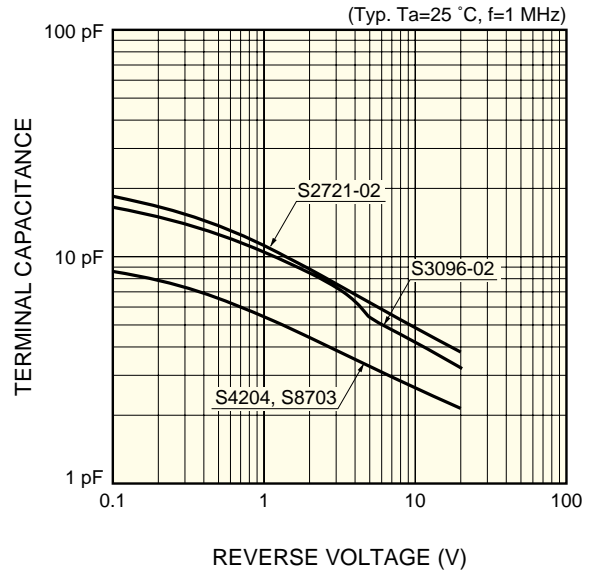
KMPDB0135EC

■ Dark current vs. reverse voltage



KMPDB0136EB

■ Terminal capacitance vs. reverse voltage

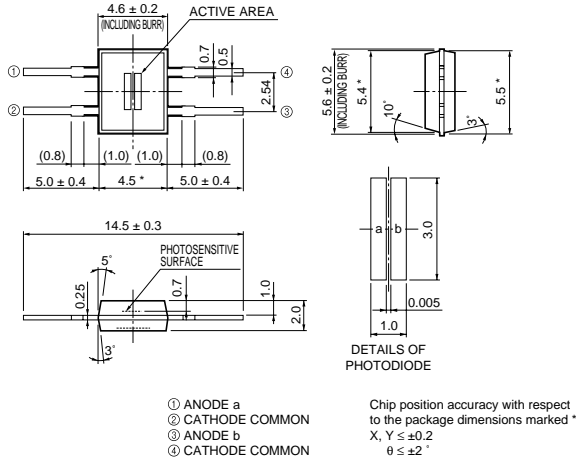


KMPDB0137EB

Si PIN photodiode S2721-02, S3096-02, S4204, S8703

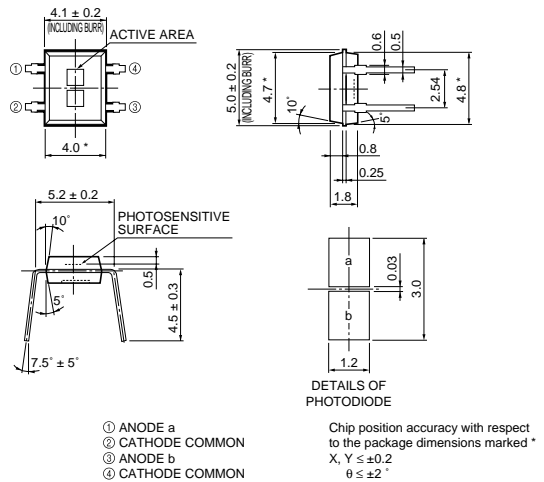
■ Dimensional outlines (unit: mm, tolerance unless otherwise noted: ± 0.1)

① S2721-02



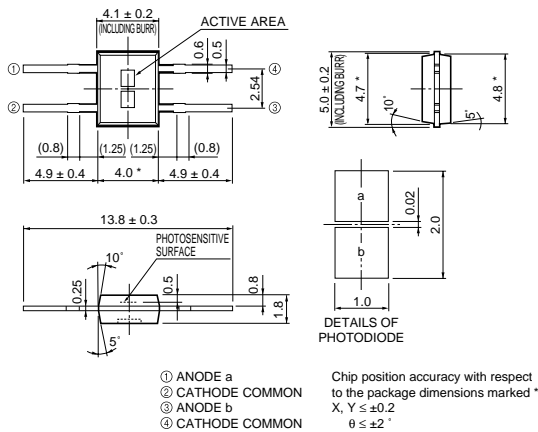
KMPDA0118EA

② S3096-02



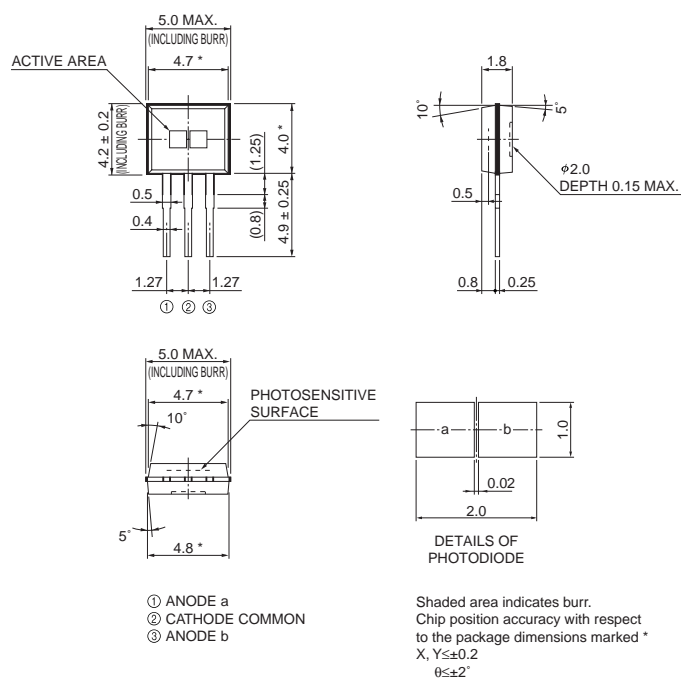
KMPDA0119EA

③ S4204



KMPDA0120EA

④ S8703



KMPDA0181EA

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