

S5627-01, etc.

Photodiodes molded into clear plastic packages

These are Si photodiodes molded into clear plastic packages. Two types are available with sensitivity in the visible range and in the visible to near IR range. Two active areas of 1.3 × 1.3 mm and 2.4 × 2.8 mm are also available. The S5627-01 provides a spectral response characteristic similar to the visible range sensitivity without using visual-compensated filters.

Features

- ➔ **S5627-01: Visible range (Filterless type)**
- ➔ **S4797-01, S6931-01: Visible to near IR range (Suppressed IR sensitivity type)**
- ➔ **S2833-01, S4011-06DS: Visible to near IR range**

Applications

- ➔ **Exposure meter**
- ➔ **Illuminometer**
- ➔ **Stroboscope light control**
- ➔ **Copier**
- ➔ **Display light control**
- ➔ **Optical switch, etc.**

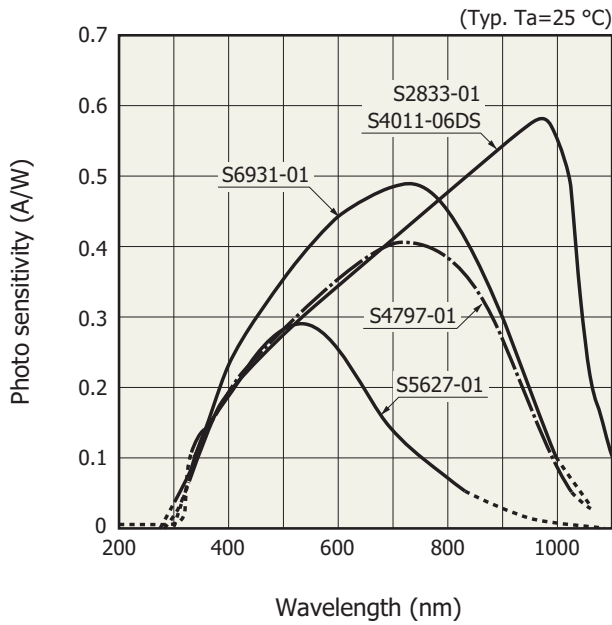
General ratings / Absolute maximum ratings

Type No.	Dimensional outline	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
				Reverse voltage V _R Max. (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
S5627-01	①	1.3 × 1.3	1.6	10	-25 to +85	-40 to +100
S6931-01	②	2.4 × 2.8	6.6			
S4797-01	③	1.3 × 1.3	1.6			
S2833-01	④	2.4 × 2.8	6.6			
S4011-06DS	⑤	1.3 × 1.3	1.6			

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

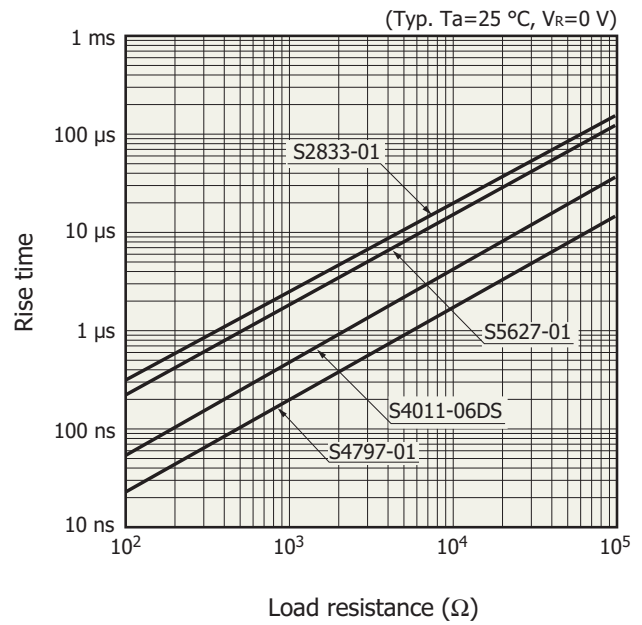
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ _p (nm)	Photo sensitivity S (A/W)			Infrared sensitivity ratio (%)	Short circuit current I _{sc} 100 lx (μA)	Temp. coefficient of I _{sc} (%/°C)	Dark current I _D V _R =1 V Max. (pA)	Temp. coefficient of I _D T _{CID} (times/°C)	Rise time t _r V _R =0 V R _L =1 kΩ (μs)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV	
			λ _p	GaP LED 560 nm	He-Ne Laser 633 nm								Min. (GΩ)	Typ. (GΩ)
S5627-01	320 to 840	540	0.3	0.28	0.2	35	0.25	0.25	50	1.13	2	700	0.5	5
S6931-01	320 to 1000	720	0.48	0.4	0.45	-	4.2	0.1	20	1.12	0.5	200	10	50
S4797-01			0.4											
S2833-01	320 to 1100	960	0.58	0.33	0.38	-	6.5	0.1	10	1.12	2.5	700	10	100
S4011-06DS							1.9				0.5			200

Spectral response



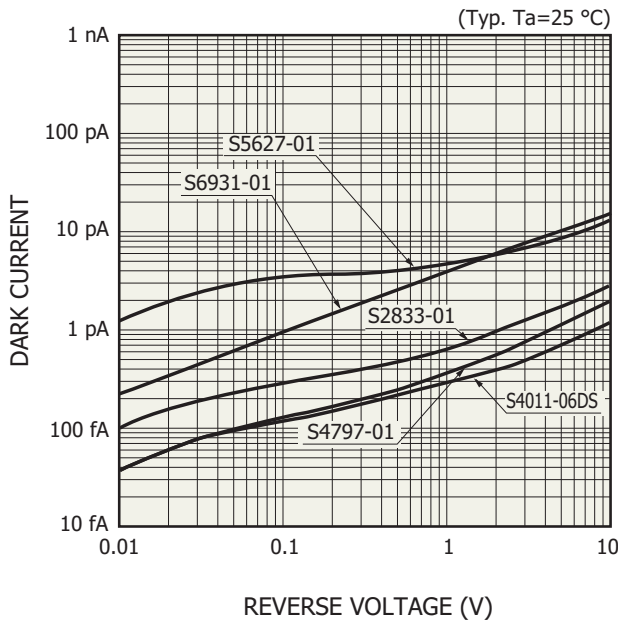
KSPDB0129ED

Rise time vs. load resistance



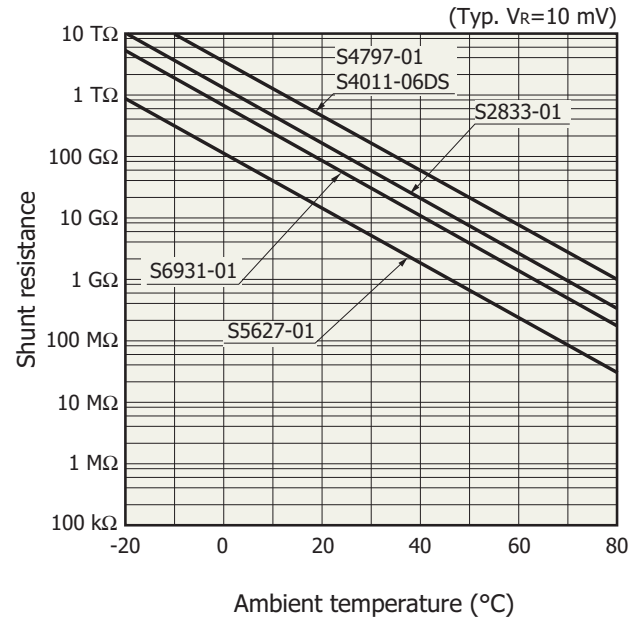
KSPDB0130ED

Dark current vs. reverse voltage



KSPDB0131ED

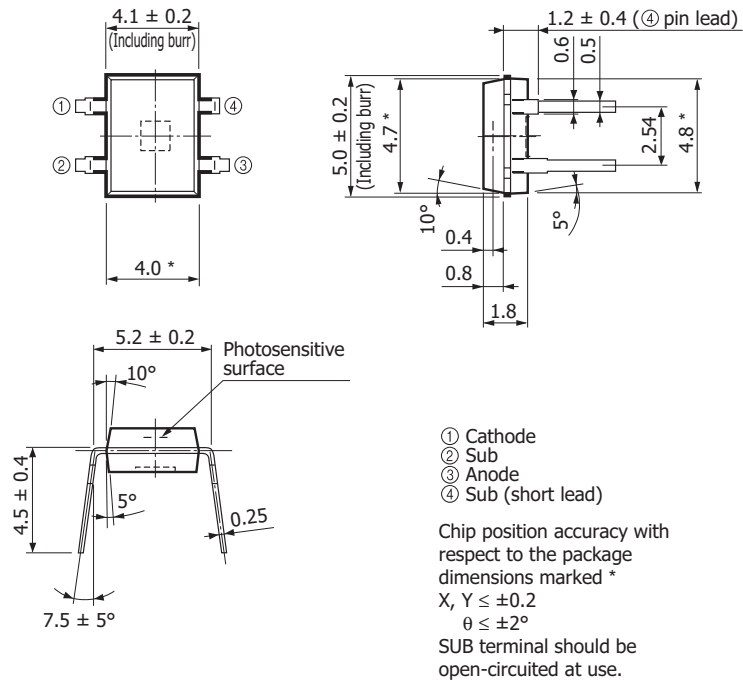
Shunt resistance vs. ambient temperature



KSPDB0132ED

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

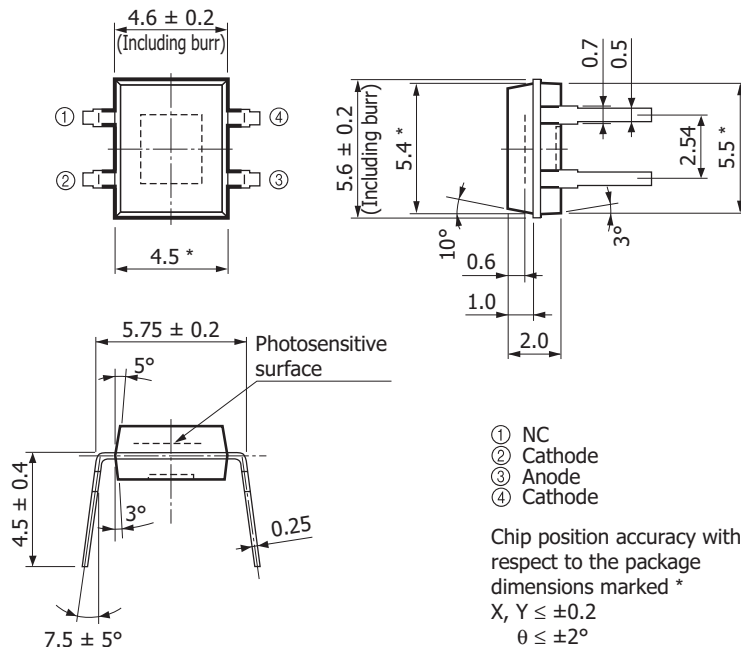
① S5627-01



Lead surface finish: Silver plating
 Packing: Stick (50 pcs/stick)

KSPDA0119EB

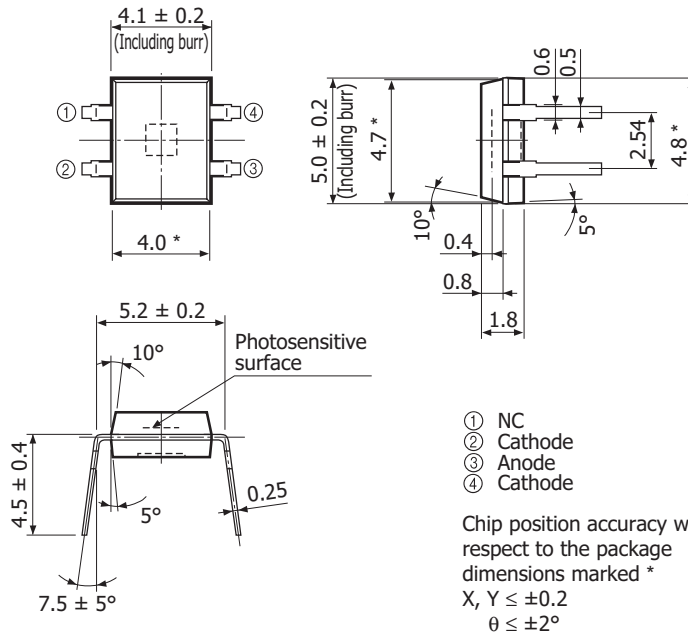
② S6931-01



Lead surface finish: Silver plating
 Packing: Stick (50 pcs/stick)

KSPDA0184EA

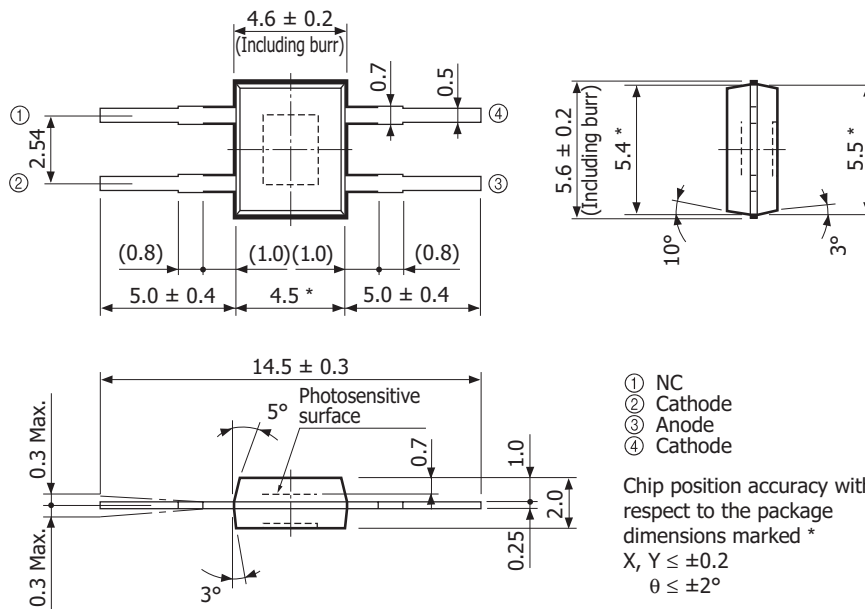
③ S4797-01



Lead surface finish: Silver plating
 Packing: Stick (50 pcs/stick)

KSPDA0121EB

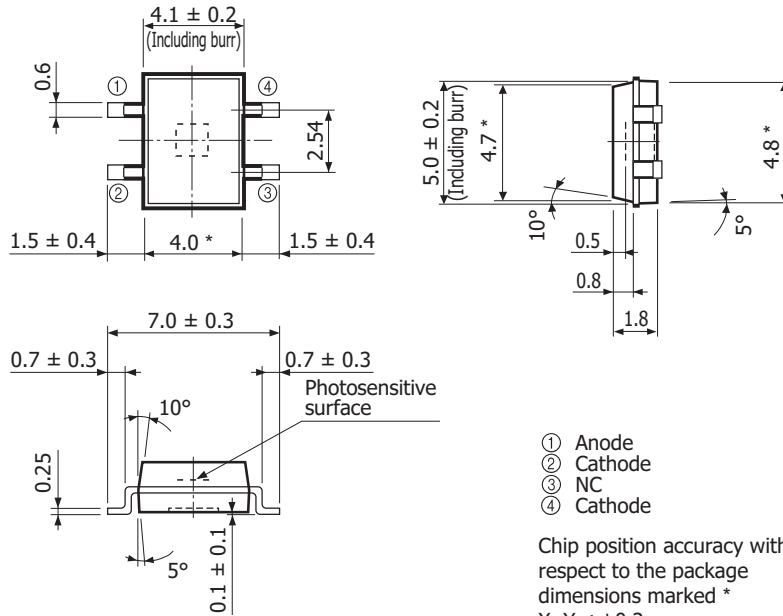
④ S2833-01



Lead surface finish: Silver plating
 Packing: Stick (50 pcs/stick)

KSPDA0123EB

⑤ S4011-06DS



Chip position accuracy with respect to the package dimensions marked *

$X, Y \leq \pm 0.2$
 $\theta \leq \pm 2^\circ$

Lead surface finish: Silver plating
Packing: Stick (50 pcs/stick)

KSPDA0163EC

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Specifications are subject to change without notice. No patent rights are granted to any of the circuits described herein.

Type numbers of products listed in the specification sheets or supplied as samples may have a suffix "(X)" which means tentative specifications or a suffix "(Z)" which means developmental specifications. ©2010 Hamamatsu Photonics K.K.

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