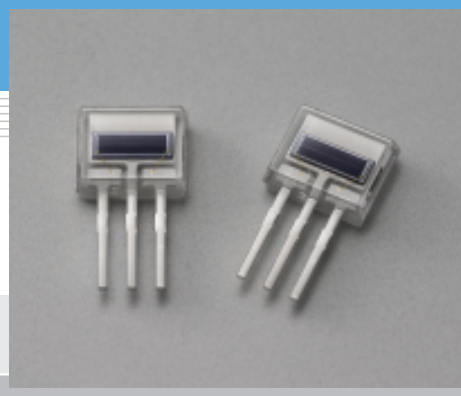


# One-dimensional PSD

## S8673

One-dimensional PSD using SIP (Single Inline Package)



S8673 is a one-dimensional PSD with a  $1.0 \times 3.0$  mm active area, molded into a SIP (Single Inline Package).

### Features

- Thin, miniature plastic package (SIP style)
- Active area:  $1.0 \times 3.0$  mm (resistance length 3.0 mm)

### Applications

- Optical switches
- Displacement meters

### ■ Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

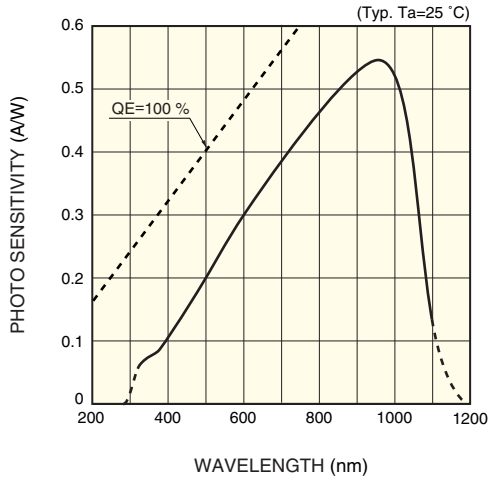
Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$ Max.	20	V
Operating temperature	$T_{opr}$	-25 to +85	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +100	$^\circ\text{C}$

### ■ Electrical and optical characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	$\lambda$		-	320 to 1100	-	nm
Peak sensitivity wavelength	$\lambda_p$		-	960	-	nm
Photo sensitivity	S	$\lambda=890$ nm	-	0.5	-	A/W
Position detection error	-	$V_R=1$ V, *	-	$\pm 10$	$\pm 30$	$\mu\text{m}$
Interelectrode resistance	$R_{ie}$	$V_b=0.1$ V	100	140	180	$\text{k}\Omega$
Dark current	$I_D$	$V_R=1$ V	-	0.05	1	nA
Temperature coefficient of $I_D$	$T_{CID}$		-	1.15	-	times/ $^\circ\text{C}$
Rise time	$t_r$	$V_R=1$ V, $R_L=1$ $\text{k}\Omega$ $\lambda=650$ nm	-	3	-	$\mu\text{s}$
Terminal capacitance	$C_t$	$V_R=1$ V, $f=10$ kHz	-	15	30	pF
Saturation photocurrent	$I_{st}$	$V_R=1$ V, $R_L=1$ $\text{k}\Omega$	30	-	-	$\mu\text{A}$

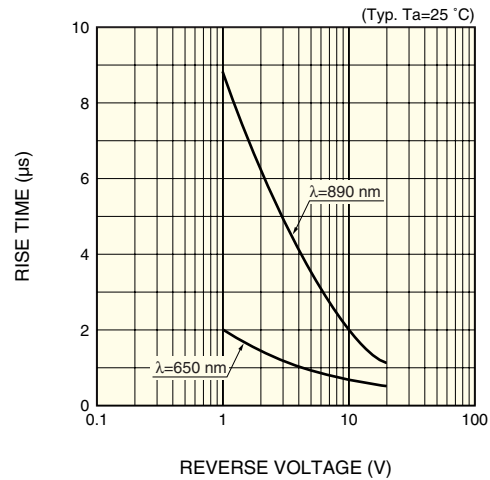
\* In the range 75 % from the center of the active area to the edge.

### ■ Spectral response



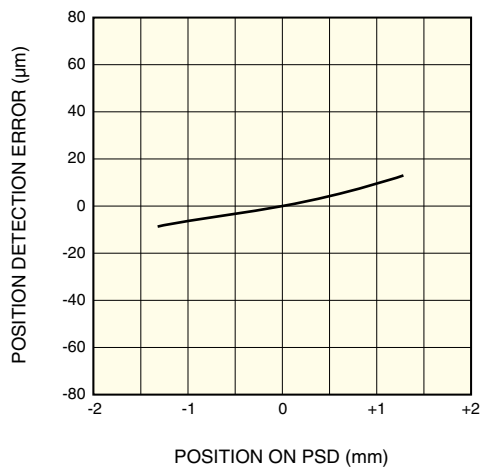
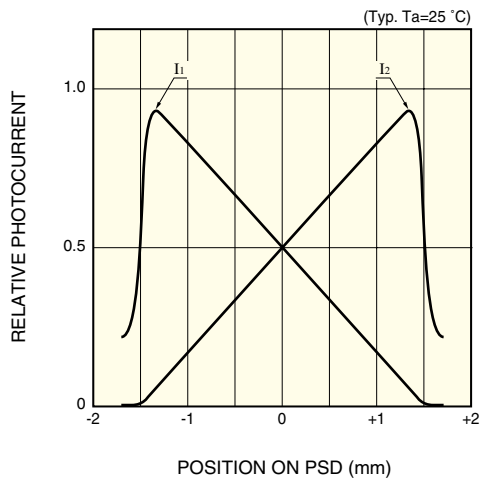
KPSDB0104EA

### ■ Rise time vs. reverse voltage



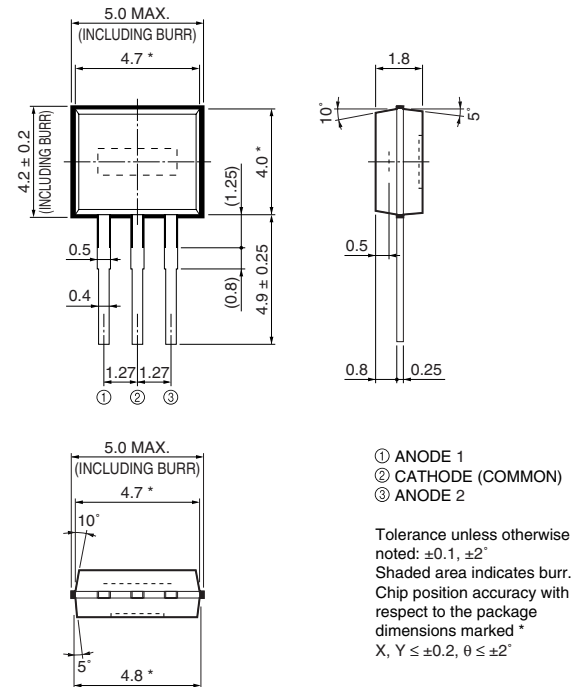
KPSDB0105EA

### ■ Position detection characteristic example



KPSDB0106EA

### ■ Dimensional outline (unit: mm)



KPSDA0061EA

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