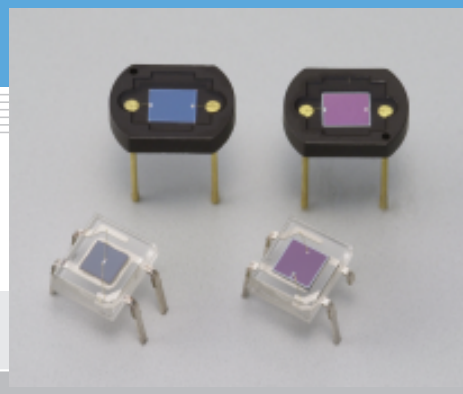


Si photodiode S6865/S7123 series

High reliability photodiode



S6865/S7123 series operate with high reliability over a wide temperature range (-40 to +100 °C). S6865 series has spectral response from the visible to infrared range, while S7123 series has spectral response in the visible range.

Features

- Two package types provided
S6865-01, S7123-01: plastic package
S6865-02, S7123-02: ceramic package
- Choice of two spectral response characteristics
S6865 series: visible to infrared range (320 to 1100 nm)
S7123 series: visible range (320 to 840 nm)

Applications

- Automobile sensors (for auto light control, display light dimmer)
- Copiers
- Cameras
- Other visible light sensors

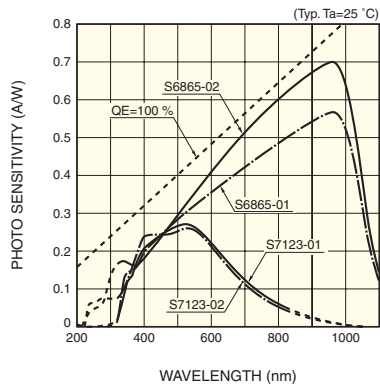
General ratings / Absolute maximum ratings

Type No.	Dimensional outline	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
				Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S6865-01	①	2 × 2	4	10	-40 to +100	-40 to +125
S6865-02	②	2.4 × 2.8	6.7			-55 to +125
S7123-01	③	2.46 × 2.46	6.0			-40 to +125
S7123-02	②	2.4 × 2.8	6.7			-55 to +125

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

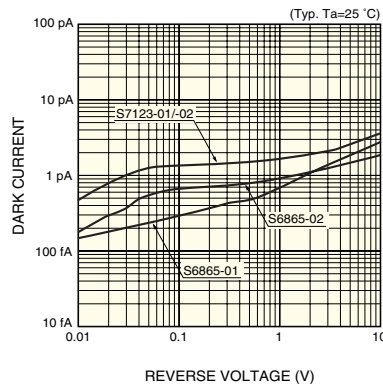
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S $\lambda = \lambda_p$ (A/W)	Short circuit current Isc 100 lx 2856 K (μ A)	Dark current ID VR=1 V Max. (pA)	Rise time tr VR=0 V RL=1 k Ω (μ s)	Terminal capacitance Ct VR=0 V f=10 kHz (nF)
S6865-01	320 to 1100	960	0.58	4	10	2	0.5
S6865-02			0.7	6.5		2.5	0.7
S7123-01	320 to 840	540	0.3	0.9	100	10	3
S7123-02							

■ Spectral response



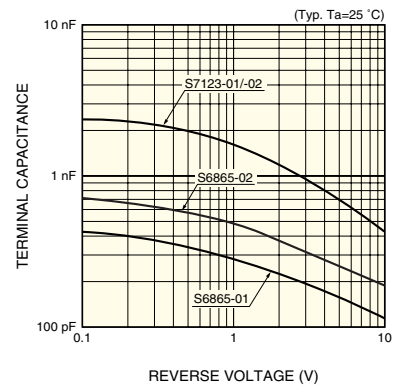
KSPDB0134EB

■ Dark current vs. reverse voltage



KSPDB0168EA

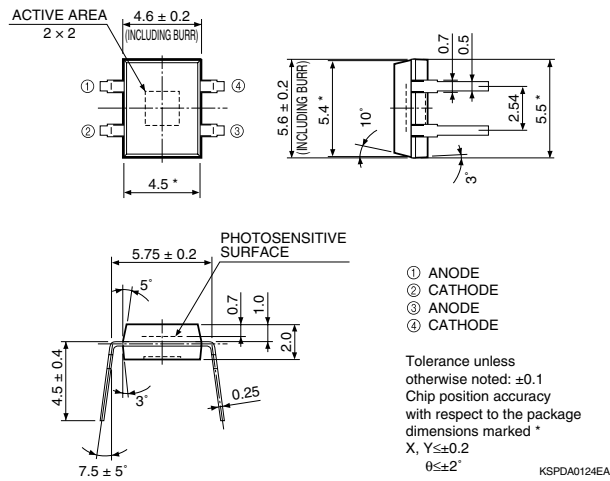
■ Terminal capacitance vs. reverse voltage



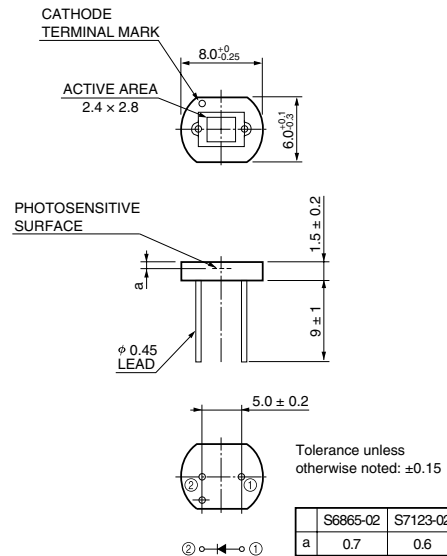
KSPDB0169EA

■ Dimensional outline (unit: mm)

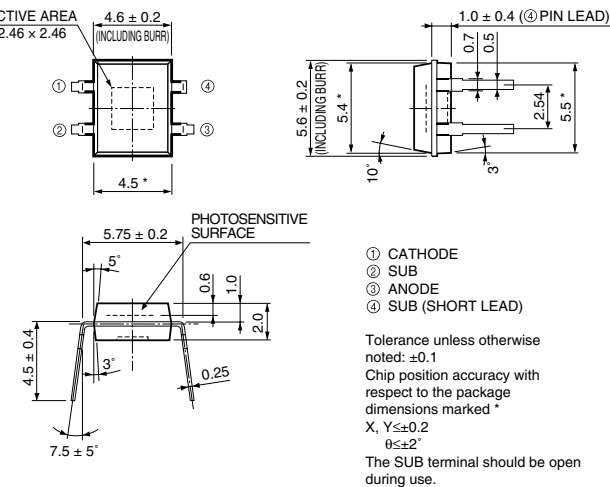
① S6865-01



② S6865-02, S7123-02



③ S7123-01



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