



S2386 series

For visible to IR, general-purpose photometry

Features

- High sensitivity
- Low dark current
- High reliability
- Superior linearity

Applications

- Analytical instruments
- Optical measurement equipment

General ratings / Absolute maximum ratings

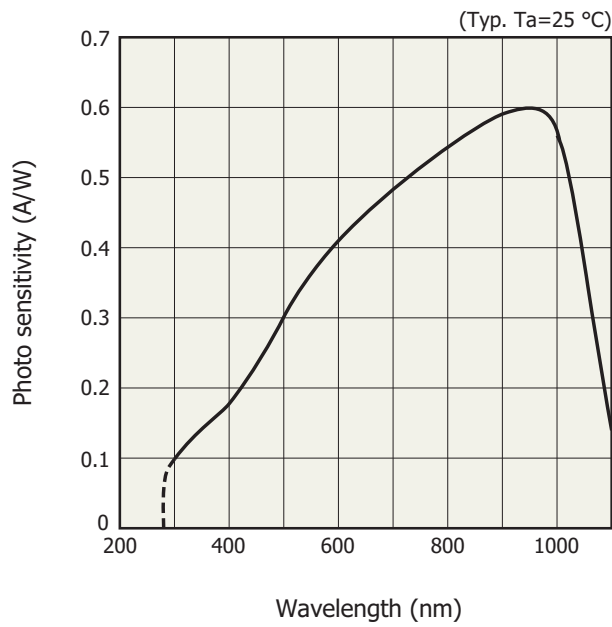
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage VR Max. (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
S2386-18K	①/K	TO-18	1.1 × 1.1	1.2	30	-40 to +100	-55 to +125
S2386-18L	②/L						
S2386-5K	③/K	TO-5	2.4 × 2.4	5.7			
S2386-44K			3.6 × 3.6	13			
S2386-45K			3.9 × 4.6	17.9			
S2386-8K	⑤/K	TO-8	5.8 × 5.8	33			

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 (A/W)				Short circuit current Isc 100 lx		Dark current ID VR=10 mV Max. (pA)	Temp. coefficient of ID TCID (times/°C)	Rise time tr VR=0 V RL=1 kΩ (μs)	Terminal capacitance Ct VR=0 V f=10 kHz (pF)	Shunt resistance Rsh VR=10 mV		NEP VR=0 V $\lambda=\lambda_p$ (W/Hz ^{1/2})	
			λ_p	GaP LED 560 nm	He-Ne laser 633 nm	GaAs LED 930 nm	Min. (μA)	Typ. (μA)					Min. (GΩ)	Typ. (GΩ)		
S2386-18K	320 to 1100	960	0.6	0.38	0.43	0.59	1	1.3	2	1.12	0.4	140	5	100	6.8×10^{-16}	
S2386-18L							4	5.7					25			
S2386-5K							4.4	6.0					5	2		50
S2386-44K							9.6	12					20	25		9.6×10^{-16}
S2386-45K							12	17					30	25		1.4×10^{-15}
S2386-8K							26	33					50	10		10

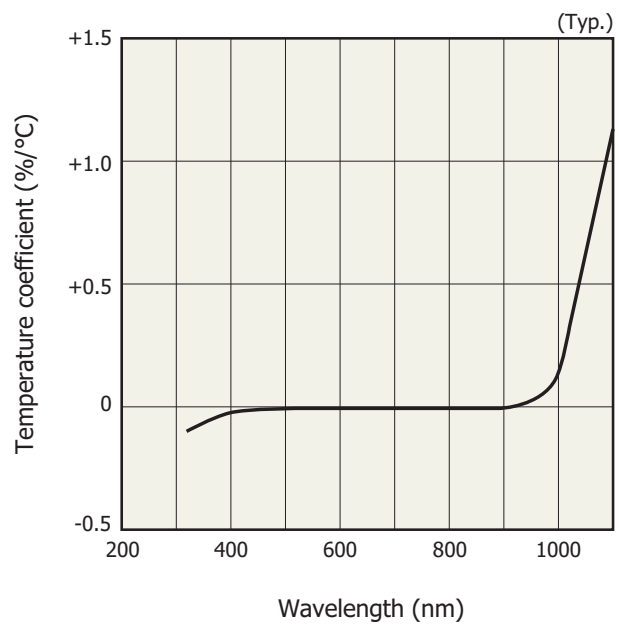
* Window material K: borosilicate glass, L: lens type borosilicate glass

Spectral response



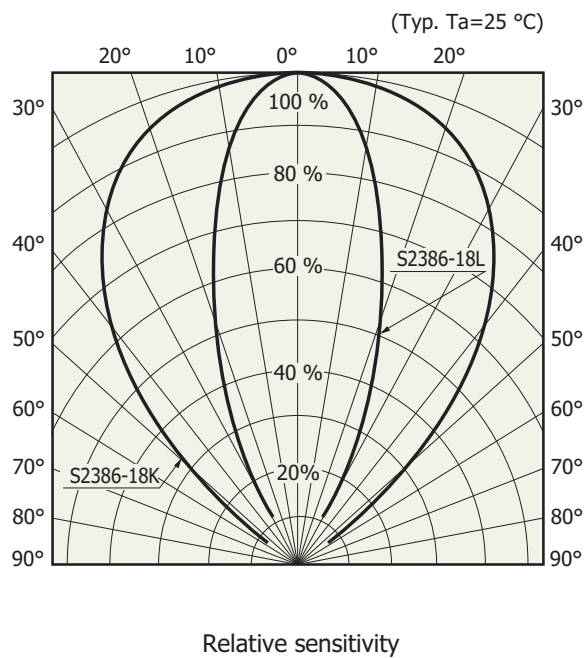
KSPD80110EA

Photo sensitivity temperature characteristic



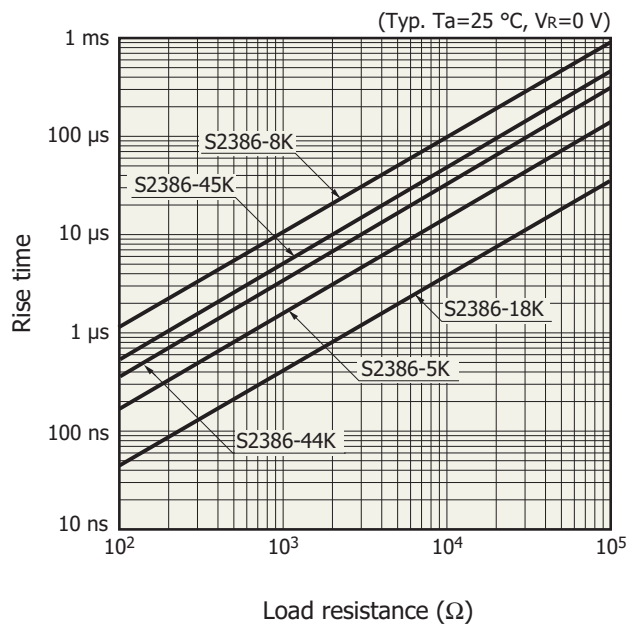
KSPD80058EB

Directivity



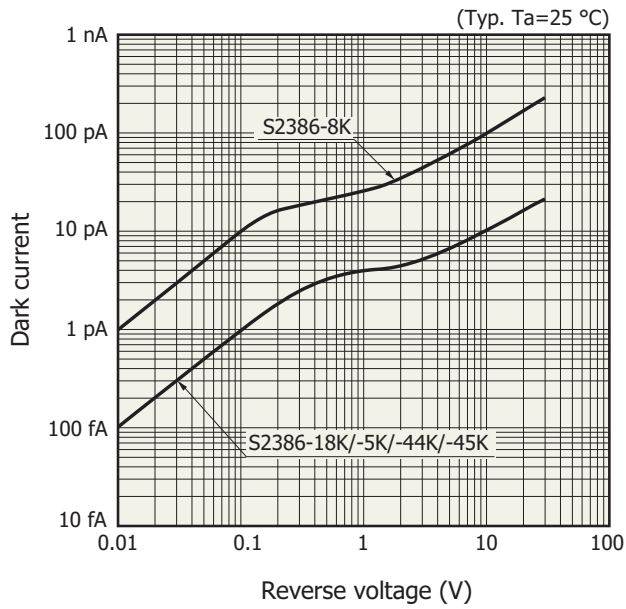
KSPD80111EA

Rise time vs. load resistance



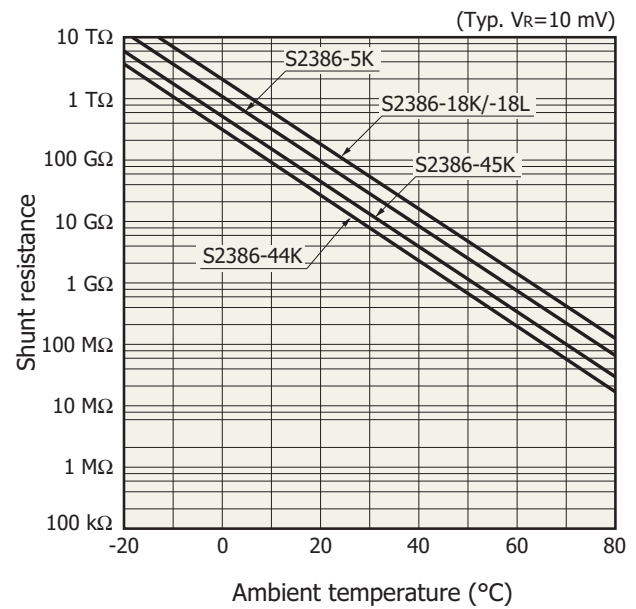
KSPD80112EC

Dark current vs. reverse voltage



KSPD80113ED

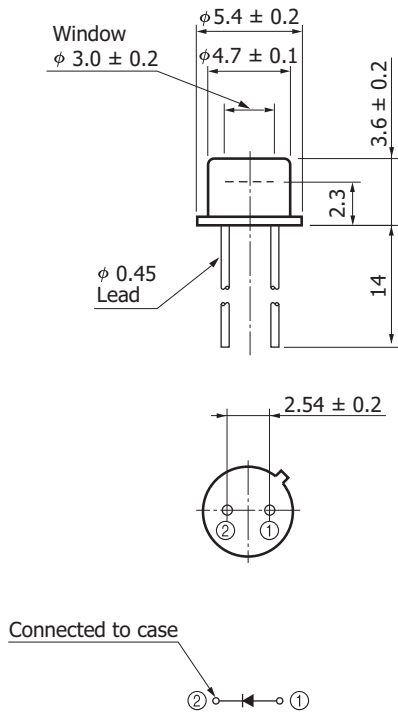
Shunt resistance vs. ambient temperature



KSPD80114EA

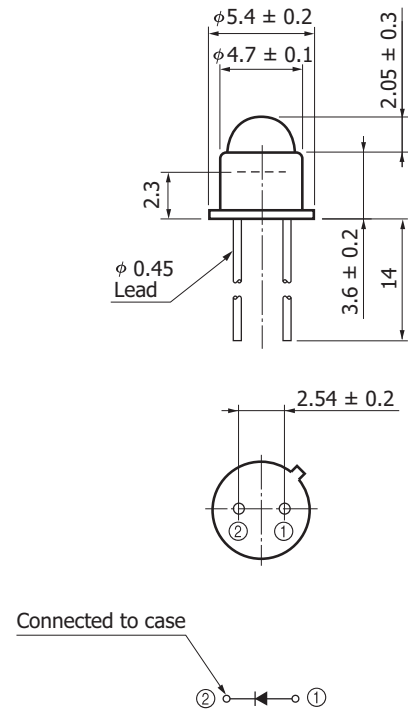
Dimensional outlines (unit: mm)

① S2386-18K



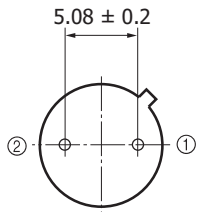
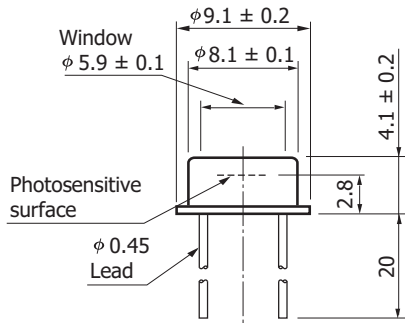
KSPDA0102EB

② S2386-18L



KSPDA0048EB

③ S2386-5K/-44K



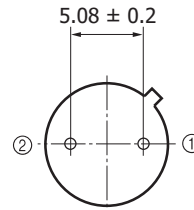
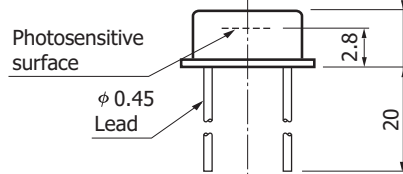
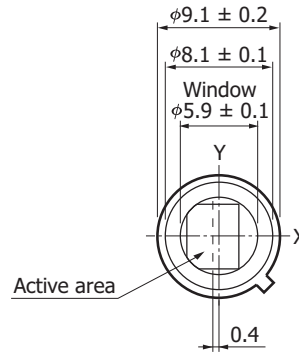
Connected to case



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0103EA

④ S2386-45K

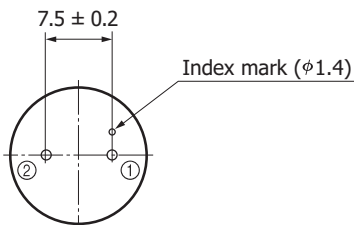
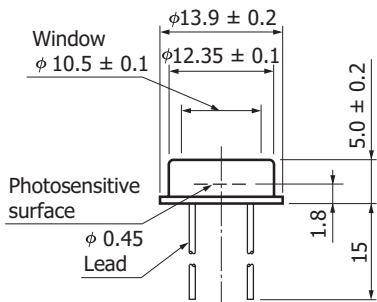


Chip center to cap center
-0.7 X -0.1
-0.3 Y +0.3

The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0178EA

⑤ S2386-8K



Connected to case



The K type borosilicate glass window may extend a maximum of 0.2 mm above the upper surface of the cap.

KSPDA0104EA

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