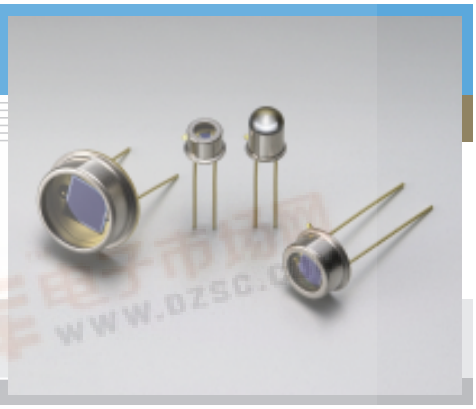


Si photodiode
S2386 series

For visible to IR, general-purpose photometry

Features

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

Applications

- Analytical equipment
- Optical measurement equipment

■ General ratings / Absolute maximum ratings

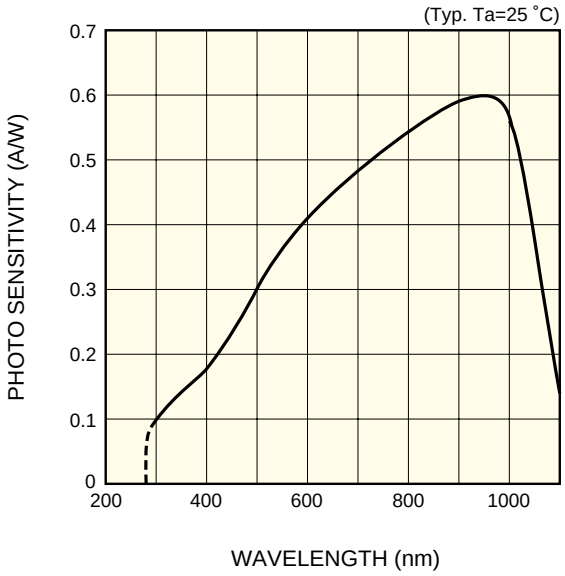
Type No.	Dimensional outline/ Window material *	Package (mm)	Active area size (mm)	Effective active area (mm^2)	Absolute maximum ratings: Reverse voltage V_R Max. (V)	Absolute maximum ratings: Operating temperature Topr (°C)	Absolute maximum ratings: Storage temperature Tstg (°C)
S2386-18K	①/K	TO-18	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	④/K		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 λp (nm)	Photo sensitivity S (A/W): λp	GaP LED 560 nm	He-Ne laser 633 nm	GaAs LED 930 nm	Short circuit current Isc 100 lx: Min. (μA)	Short circuit current Isc 100 lx: Typ. (μA)	Dark current I_D V_R=10 mV Max. (pA)	Temp. coefficient of I_D T_{CID} (times/° C)	Rise time tr V_R=0 V R_L=1 kΩ (μs)	Terminal capacitance Ct V_R=0 V f=10 kHz (pF)	Shunt resistance Rsh V_R=10 mV: Min. (GΩ)	Shunt resistance Rsh V_R=10 mV: Typ. (GΩ)	NEP V_R=0 V λ=λp (W/Hz$^{1/2}$)
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							
S2386-5K							4.4	6.0	5		1.8	730	2	50	9.6×10^{-16}
S2386-44K							9.6	12	20		3.6	1600	0.5	25	1.4×10^{-15}
S2386-45K							12	17	30		5.5	2300	0.3		
S2386-8K							26	33	50		10	4300	0.2	10	2.1×10^{-15}

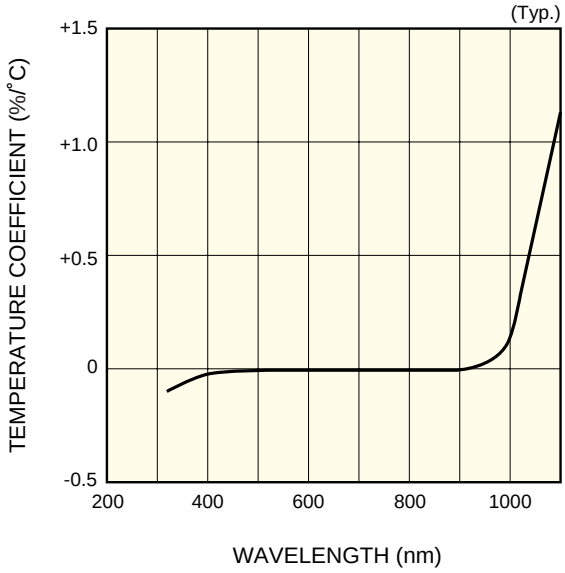
* Window material K: borosilicate glass, L: lens type borosilicate glass

■ Spectral response



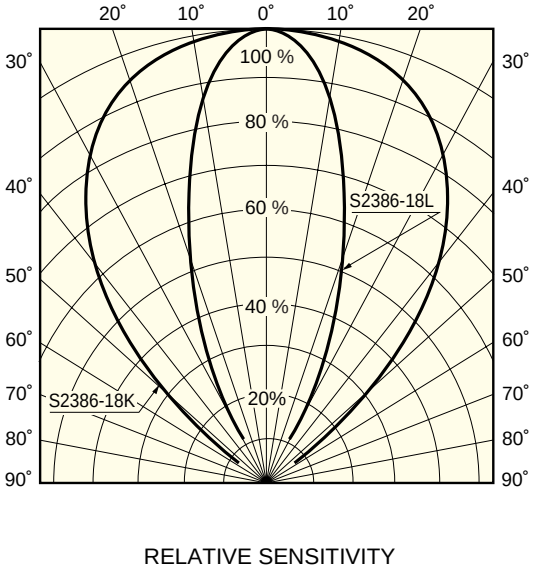
KSPDB0110EA

■ Photo sensitivity temperature characteristic



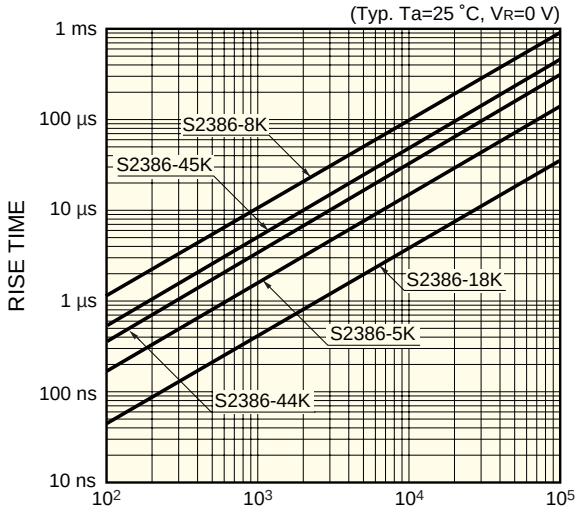
KSPDB0058EB

■ Directivity



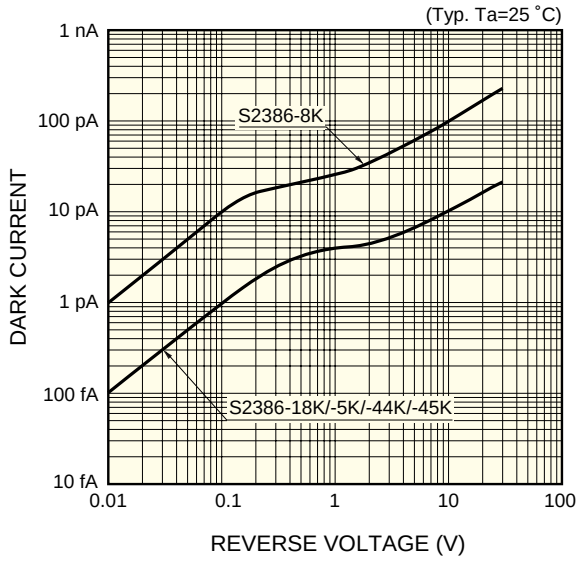
KSPDB0111EA

■ Rise time vs. load resistance



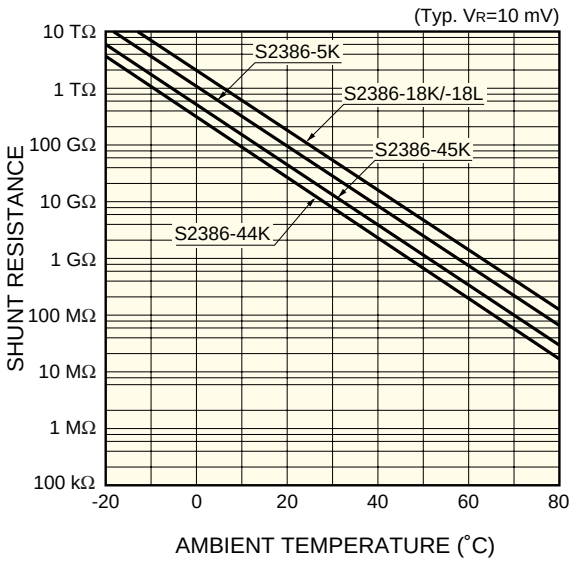
KSPDB0112EA

■ Dark current vs. reverse voltage



KSPDB0113EB

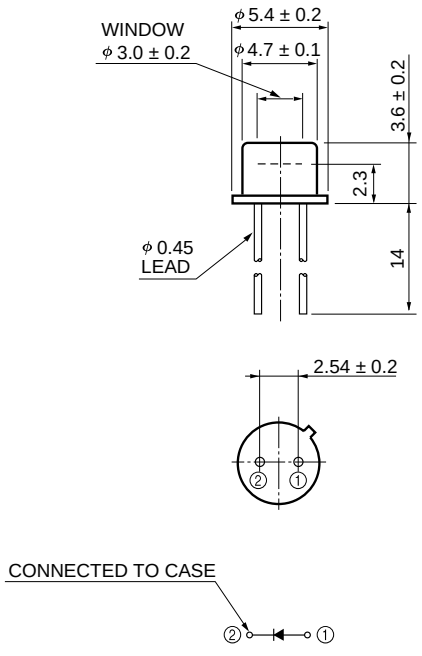
■ Shunt resistance vs. ambient temperature



KSPDB0114EA

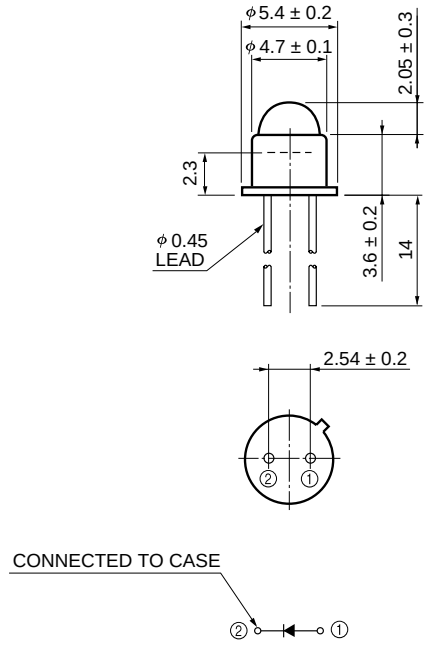
■ Dimensional outlines (unit: mm)

① S2386-18K



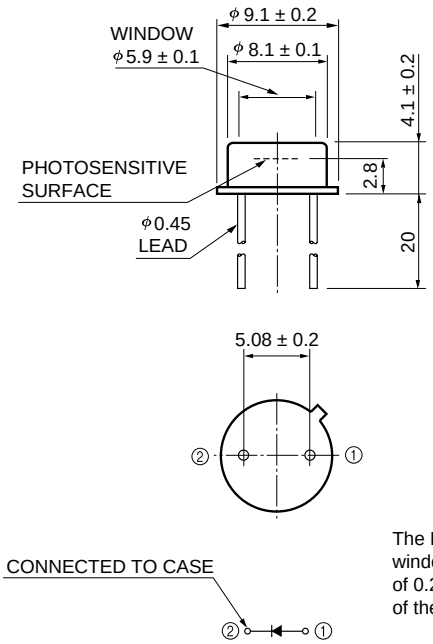
KSPDA0102EB

② S2386-18L



KSPDA0048EBy

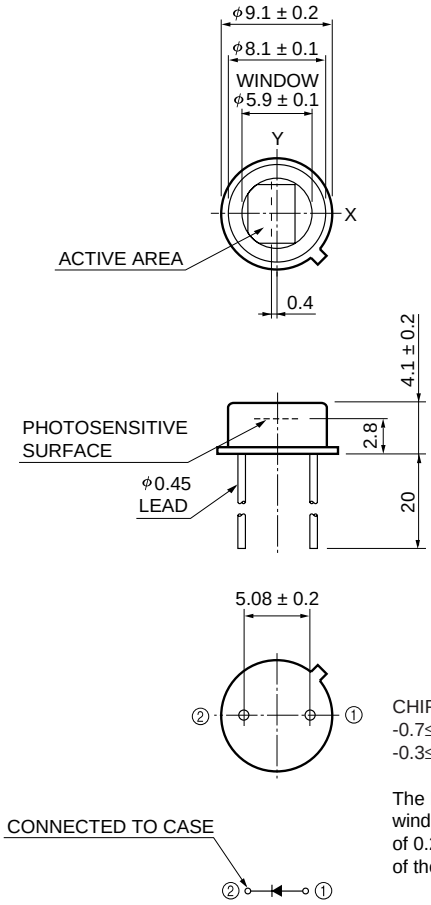
③ S2386-5K/-44K



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

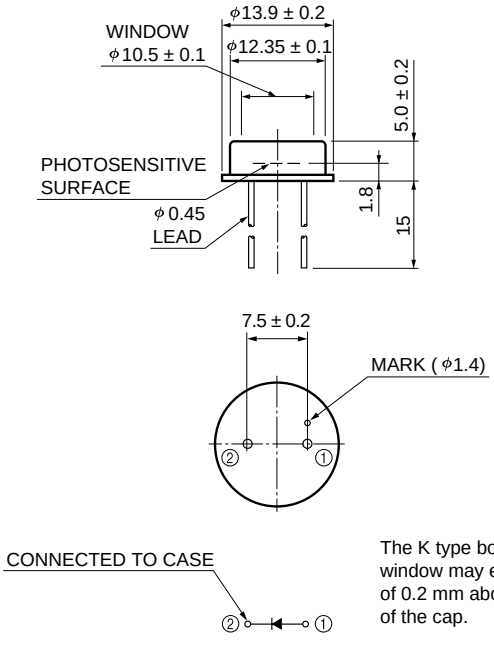


CHIP CENTER TO CAP CENTER
-0.7≤X≤-0.1
-0.3≤Y≤+0.3

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



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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