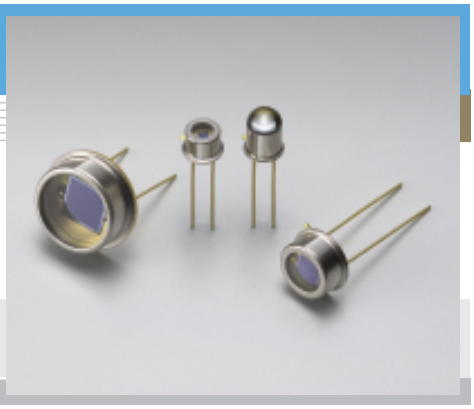
Si photodiode
S2386 series

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)	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	④/K		3.9 × 4.6	17.9			
S2386-8K	⑤/K	TO-8	5.8 × 5.8	33			

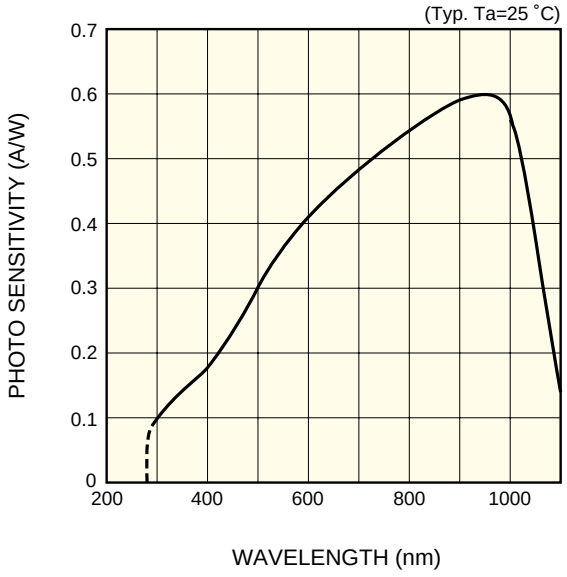
■ Electrical and optical characteristics (Typ. Ta=25 °C, unless otherwise noted)

Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photo sensitivity S (A/W)				Short circuit current Isc 100 lx		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		NEP V_R=0 V λ=λp (W/$Hz^{1/2}$)
			λp	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							
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

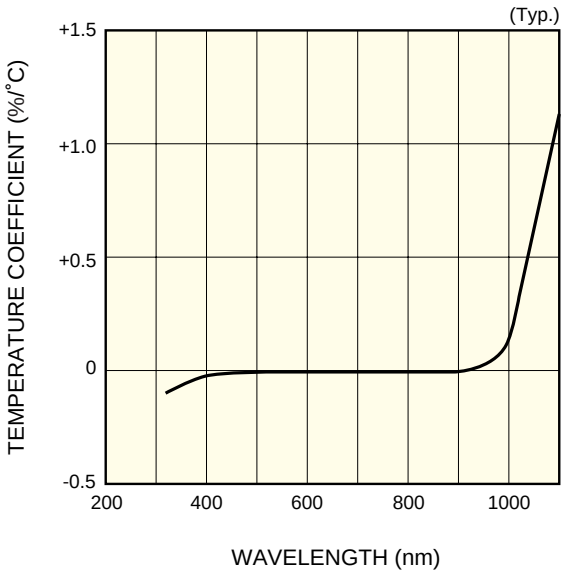
SOLID STATE DIVISION

■ Spectral response



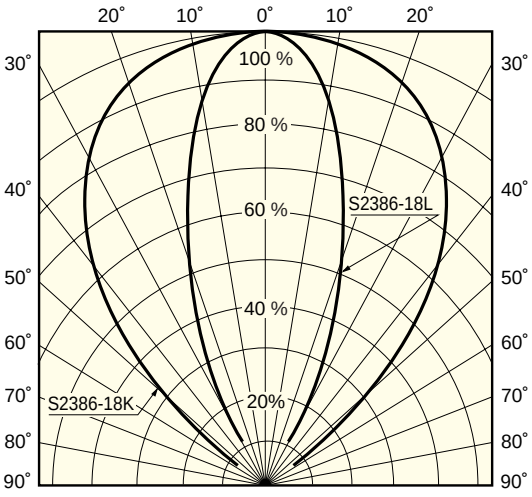
KSPDB0110EA

■ Photo sensitivity temperature characteristic



KSPDB0058EB

■ Directivity



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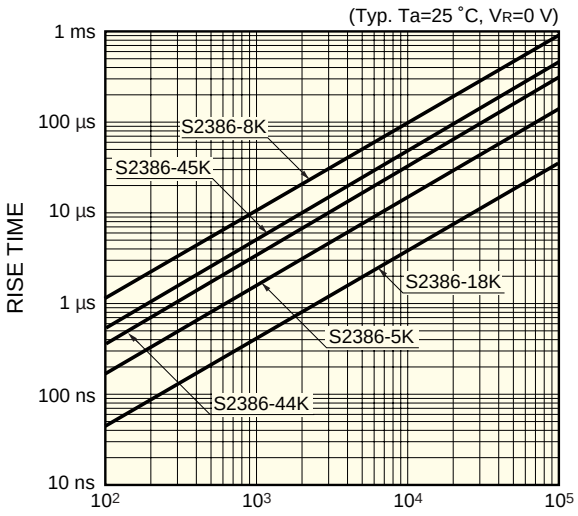
■ Rise time vs. load resistance



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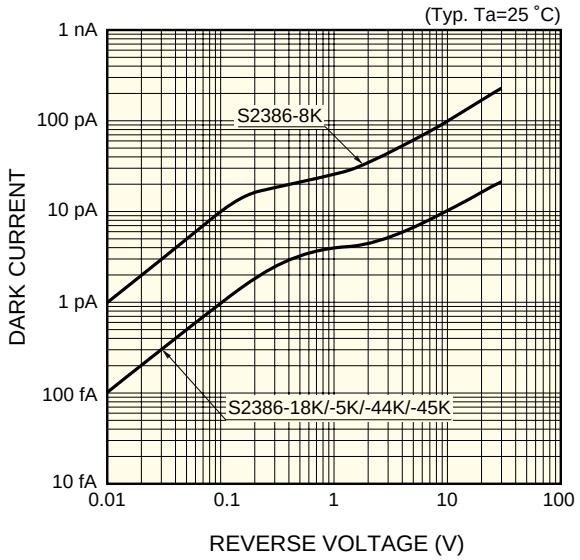
■ Dark current vs. reverse voltage



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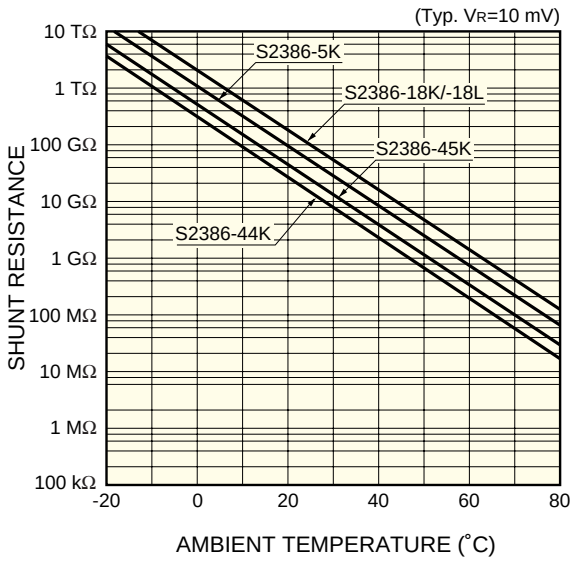
■ Shunt resistance vs. ambient temperature



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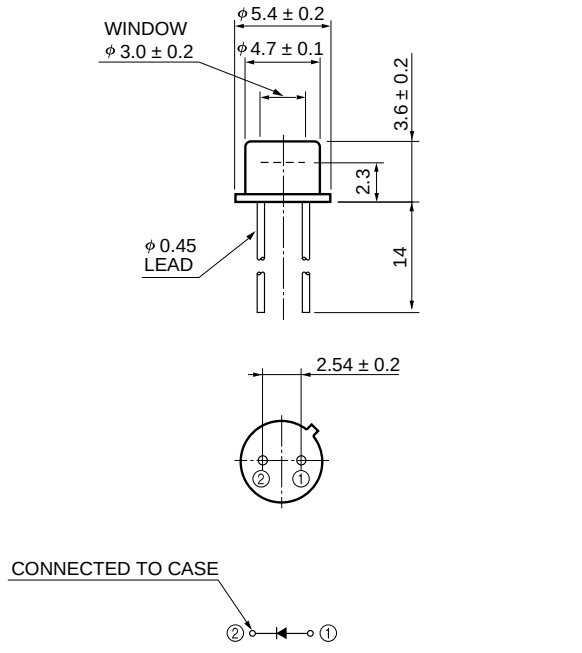
■ Dimensional outlines (unit: mm)

① S2386-18K



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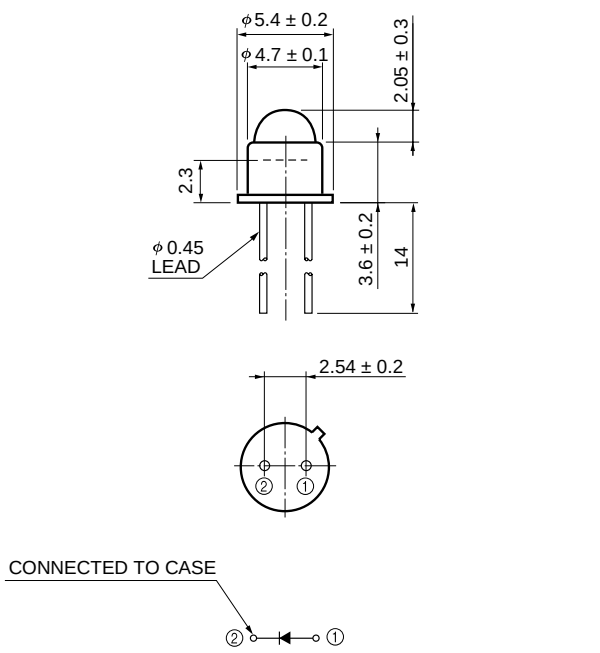
② S2386-18L



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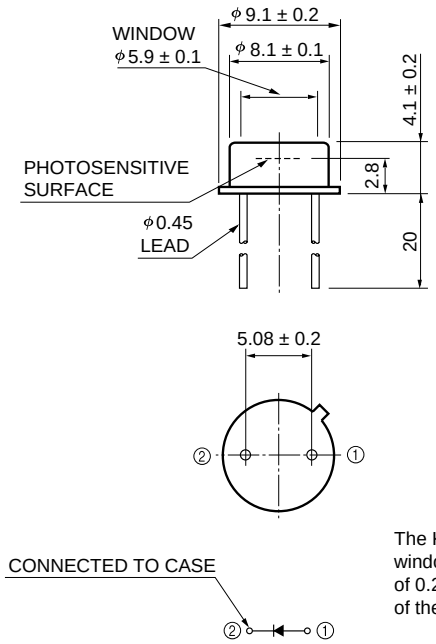
③ S2386-5K/-44K



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

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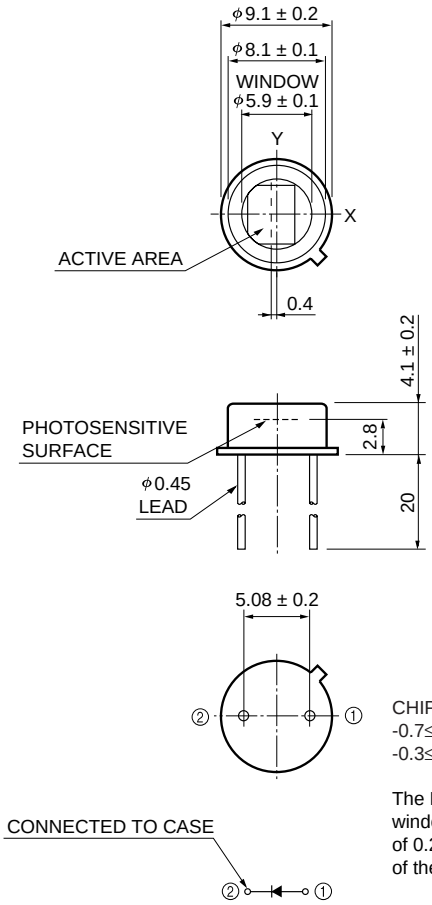
④ S2386-45K



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.

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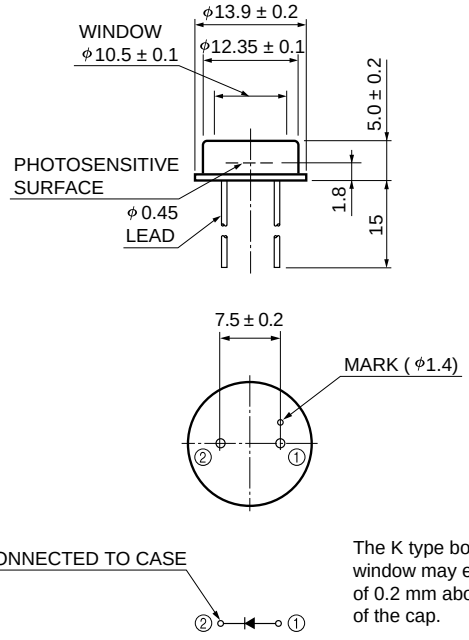
⑤ S2386-8K



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

KSPDA0104EA

HAMAMATSU PHOTONICS K.K., Solid State Division
1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184, www.hamamatsu.com
U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218
Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658
France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10
United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777
North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01
Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741

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