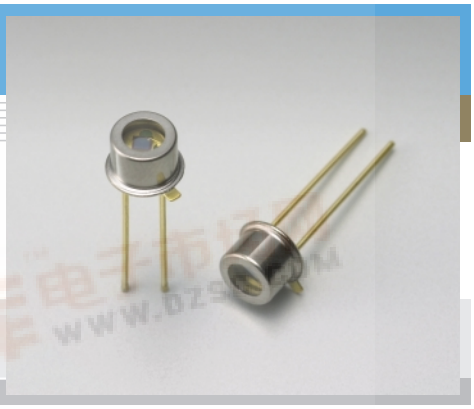


Si photodiode
S1226-18BU, S1336-18BU

For high power UV monitor, and UV to visible, precision photometry

S1226-18BU and S1336-18BU are Si photodiodes encapsulated in a TO-18 package with a UV glass window. These photodiodes have high sensitivity from the UV to near infrared range and operate reliably when detecting high power UV radiation (such as from mercury lamps).

Features

- TO-18 package with UV glass window
- High sensitivity from the UV to near infrared range
- High reliability versus high power UV radiation

Applications

- Mercury lamp (λ=254 nm) monitor
- Excimer laser (KrF: λ=248 nm) monitor
- Other UV detection

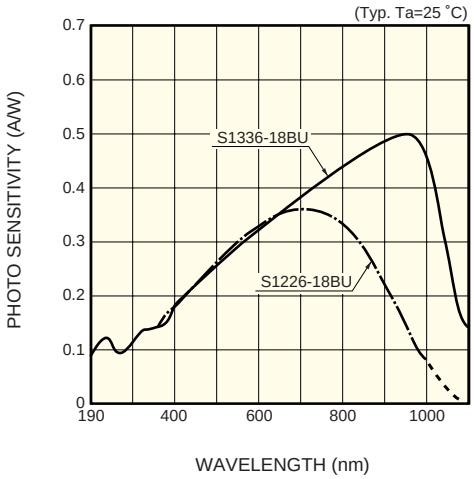
■ General ratings / Absolute maximum ratings

Type No.	Window material	Package	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)
S1226-18BU	UV glass	TO-18	1.1 × 1.1	1.2	5	-40 to +100	-50 to +125
S1336-18BU							

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

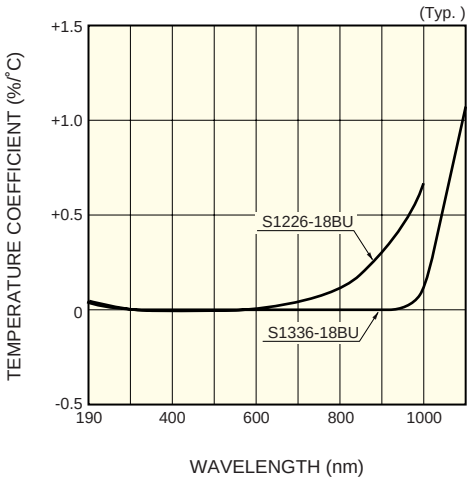
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λp (nm)	Photo sensitivity S (A/W)			Short circuit current Isc 100 lx		Dark current I_D V_R=10 mV Max. (pA)	Temp. coefficient of I_D T_{CID} (times/°C)	Rise time tr V_R=0 V R_L=1 kΩ (μs)	Terminal capacitance Ct V_R=0 V f=10 kHz (pF)	Shunt resistance Rsh V_R=10 mV (GΩ)		NEP (W/$Hz^{1/2}$)
			λp	200 nm		Min. (μA)	Typ. (μA)					Min.	Typ.	
				Min.	Typ.									
S1226-18BU	190 to 1000	720	0.36	0.06	0.075	0.5	0.66	2	1.12	0.15	35	5	50	1.6×10^{-15}
S1336-18BU	190 to 1100	960	0.50			1.0	1.2	20	1.15	0.1	20	0.5	2	5.7×10^{-15}

■ Spectral response



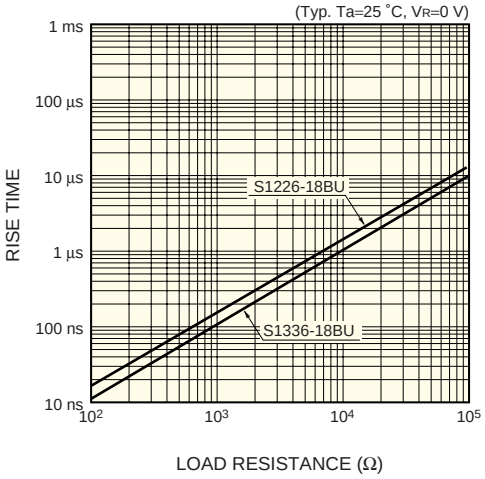
KSPDB0136EA

■ Photo sensitivity temperature characteristic



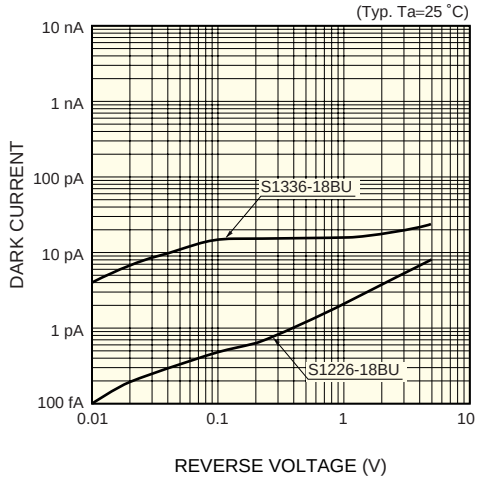
KSPDB0137EA

■ Rise time vs. load resistance



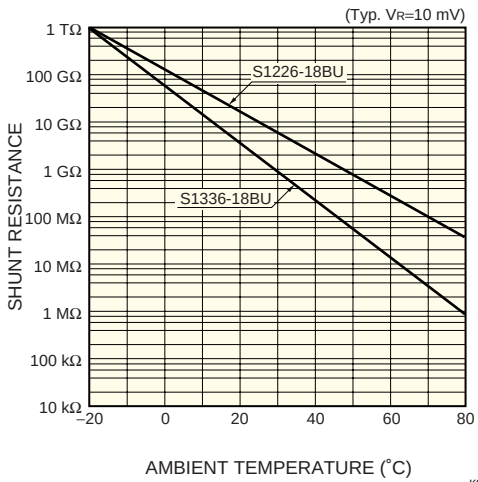
KSPDB0138EA

■ Dark current vs. reverse voltage



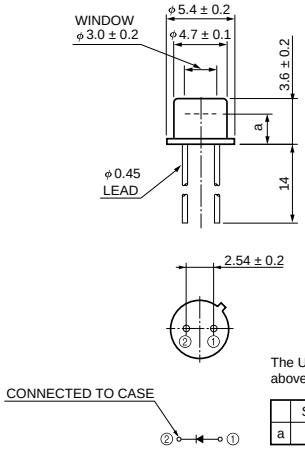
KSPDB0139EB

■ Shunt resistance vs. ambient temperature



KSPDB0140EA

■ Dimensional outline (unit: mm)



The UV glass may extend a maximum of 0.1 mm above the upper surface of the cap.

	S1226-18BU	S1336-18BU
a	2.4	2.3

KSPDA0126EA

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, http://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