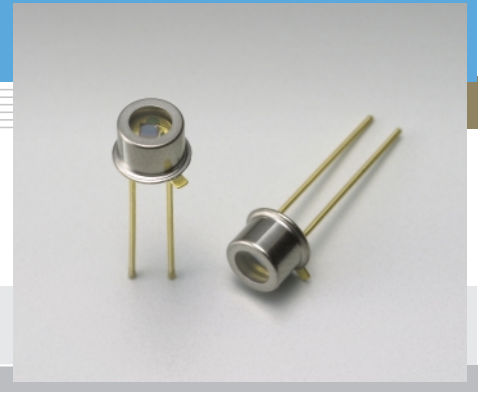


# Si photodiode

## 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 ( $\lambda=254$  nm) monitor
- Excimer laser (KrF:  $\lambda=248$  nm) monitor
- Other UV detection

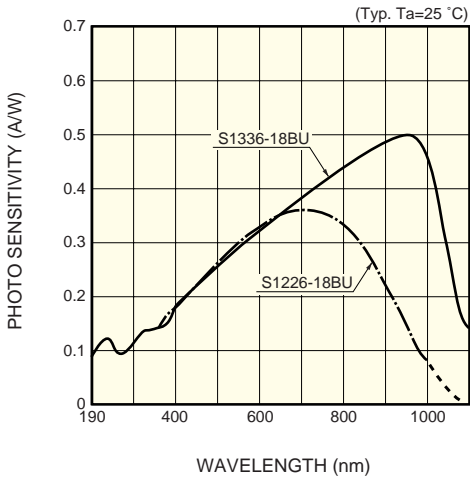
### General ratings / Absolute maximum ratings

Type No.	Window material	Package	Active area size (mm)	Effective active area (mm <sup>2</sup> )	Absolute maximum ratings		
					Reverse voltage V <sub>R</sub> Max. (V)	Operating temperature T <sub>op</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
S1226-18BU	UV glass	TO-18	1.1 × 1.1	1.2	5	-40 to +100	-50 to +125
S1336-18BU							

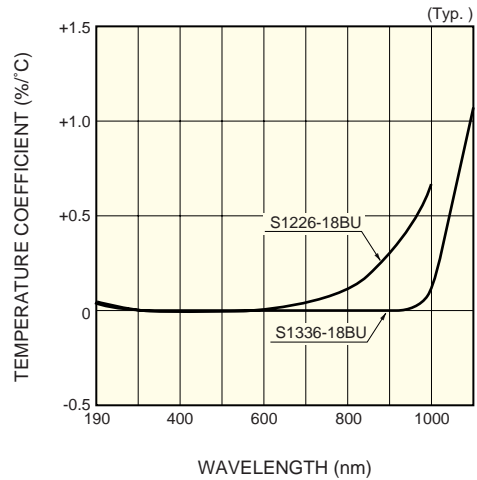
### Electrical and optical characteristics (Typ. T<sub>a</sub>=25 °C, unless otherwise noted)

Type No.	Spectral response range $\lambda$ (nm)	Peak sensitivity wavelength $\lambda_p$ (nm)	Photo sensitivity S (A/W)			Short circuit current I <sub>sc</sub> 100 lx		Dark current I <sub>D</sub> V <sub>R</sub> =10 mV Max. (pA)	Temp. coefficient of I <sub>D</sub> T <sub>CID</sub> (times/°C)	Rise time t <sub>r</sub> V <sub>R</sub> =0 V R <sub>L</sub> =1 kΩ (μs)	Terminal capacitance C <sub>t</sub> V <sub>R</sub> =0 V f=10 kHz (pF)	Shunt resistance R <sub>sh</sub> V <sub>R</sub> =10 mV (GΩ)		NEP (W/Hz <sup>1/2</sup> )
			$\lambda_p$	200 nm		Min.	Typ.					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	$1.6 \times 10^{-15}$
S1336-18BU	190 to 1100	960	0.50	0.06	0.075	1.0	1.2	20	1.15	0.1	20	0.5	2	$5.7 \times 10^{-15}$

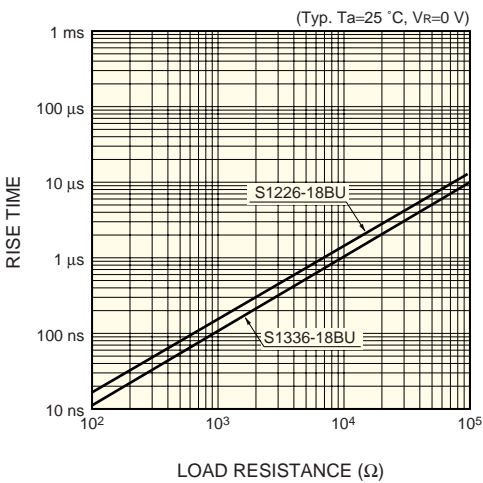
### ■ Spectral response



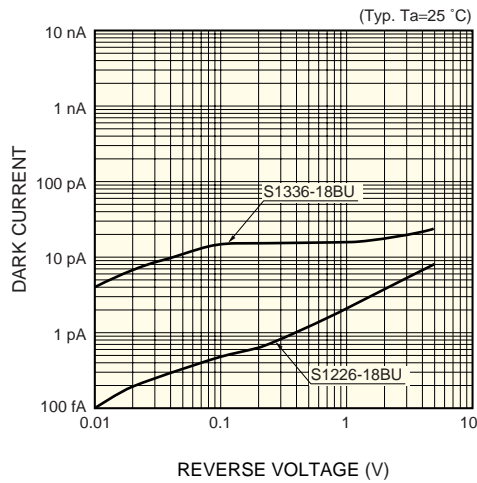
### ■ Photo sensitivity temperature characteristic



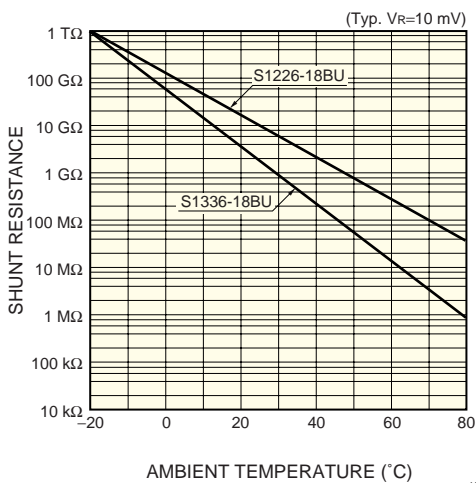
### ■ Rise time vs. load resistance



### ■ Dark current vs. reverse voltage



### ■ Shunt resistance vs. ambient temperature



### ■ Dimensional outline (unit: mm)

