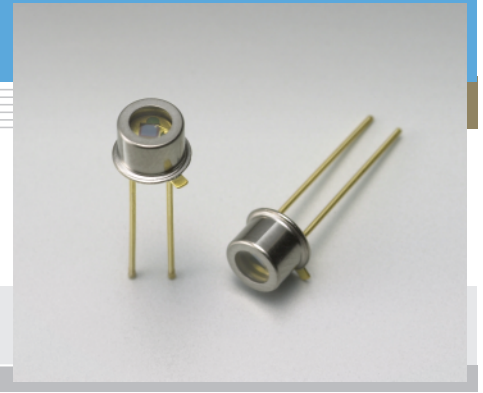


Si photodiode S1226-18BU, S1336-18BU

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

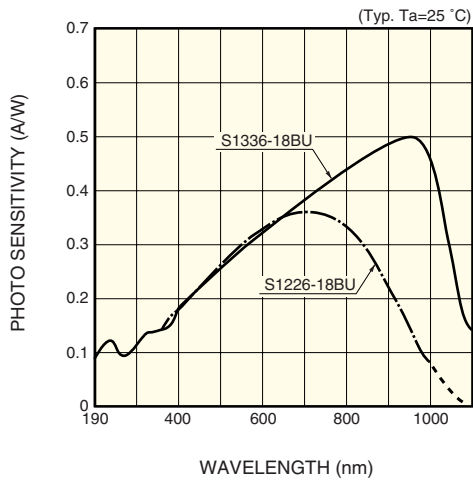
■ General ratings / Absolute maximum ratings

Type No.	Window material	Package	Active area size (mm)	Effective active area (mm ²)	Absolute maximum ratings		
					Reverse voltage V _R Max. (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°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_a=25 °C, unless otherwise noted)

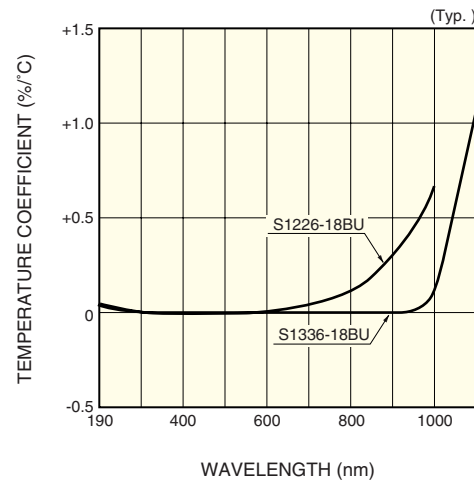
Type No.	Spectral response range λ (nm)	Peak sensitivity wavelength λ_p (nm)	Photo sensitivity S (A/W)		Short circuit current I _{sc} 100 lx		Dark current I _D V _R =10 mV Max. (pA)	Temp. coefficient of I _D T _{CID} (times/°C)	Rise time t _r V _R =0 V R _L =1 kΩ (μs)	Terminal capacitance C _t V _R =0 V f=10 kHz (pF)	Shunt resistance R _{sh} V _R =10 mV (GΩ)		NEP (W/Hz ^{1/2})					
					λ _p	200 nm					Min.	Typ.		Min.	Typ.			
			Min.	Typ.		(μA)					(μA)	(pA)		(times/°C)	(μs)	(pF)	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



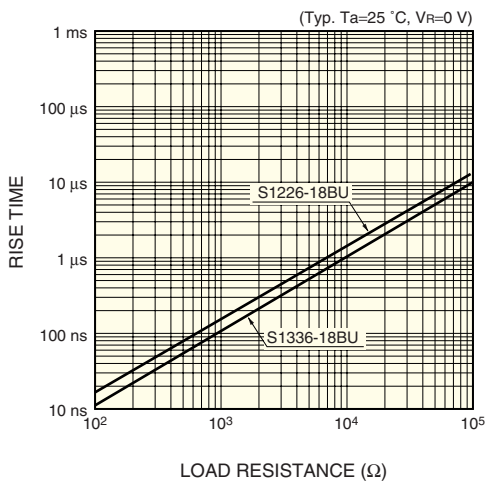
KSPDB0136EA

Photo sensitivity temperature characteristic



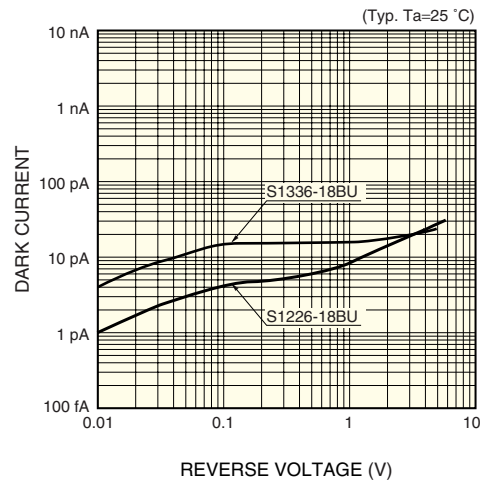
KSPDB0137EA

Rise time vs. load resistance



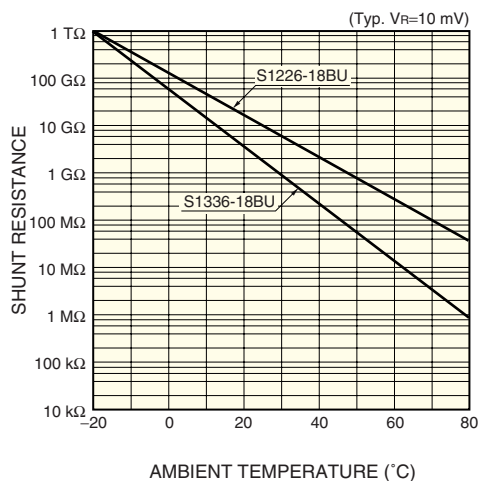
KSPDB0138EA

Dark current vs. reverse voltage



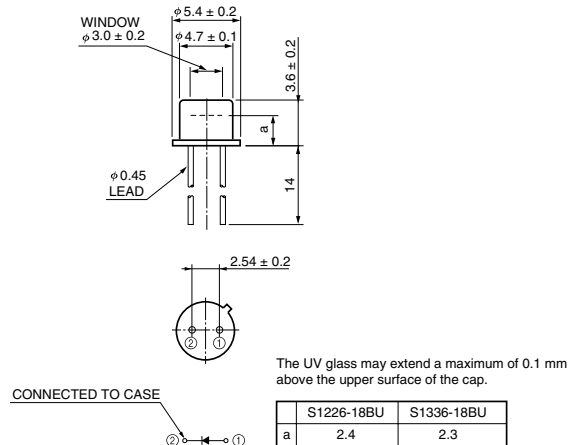
KSPDB0139EA

Shunt resistance vs. ambient temperature



KSPDB0140EA

Dimensional outline (unit: mm)



KSPDA0126EA

HAMAMATSU

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