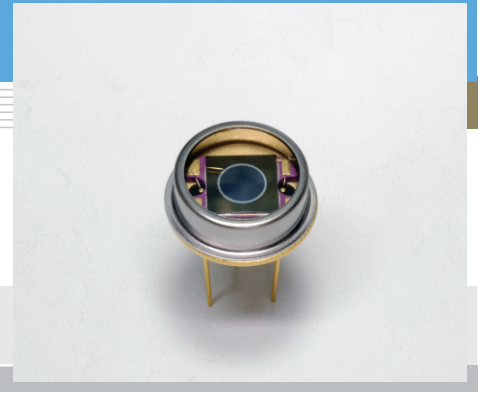


Si PIN photodiode

S1722-02

Large area, high-speed PIN photodiodes for UV to near IR photometry



S1722-02 is a high-speed Si PIN photodiode having a large active area of $\phi 4.1$ mm. Using quartz glass as the light input window, this photodiode delivers high sensitivity extending to the far UV region and is suitable for optical power meters.

Features

- Quartz glass window
- High UV sensitivity
- Large active area: $\phi 4.1$ mm
- High-speed response: 60 MHz ($V_R=100$ V)

Applications

- Optical power meter
- Radiation detector

General ratings

Parameter	Value	Unit
Package	TO-8	mm
Active area size	$\phi 4.1$	mm
Effective active area	13.2	mm ²

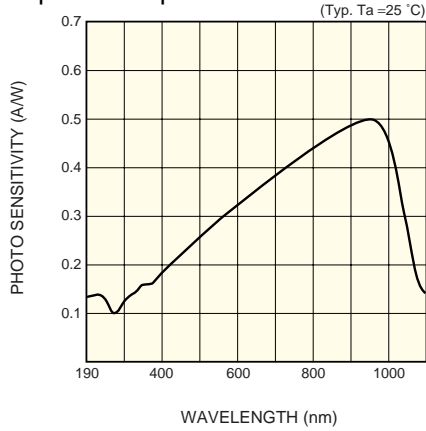
Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage	V_R Max.	120	V
Power dissipation	P	50	mW
Operating temperature	T_{opr}	-20 to +60	°C
Storage temperature	T_{stg}	-55 to +80	°C

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

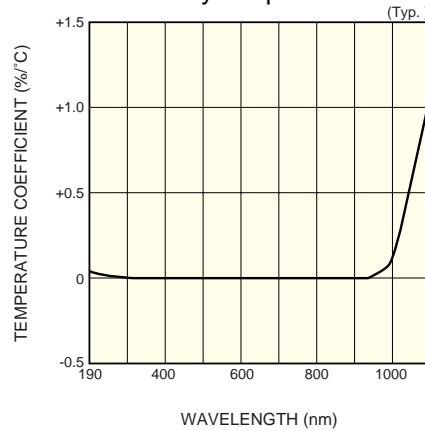
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Spectral response range	λ		-	190 to 1100	-	nm
Peak sensitivity wavelength	λ_p		-	960	-	nm
Photo sensitivity	S	λ_p	0.4	0.5	-	AW
		He-Ne Laser 633 nm	0.26	0.33	-	
Dark current	I_D	$V_R=100$ V	-	0.1	30	nA
Temp. coefficient of I_D	T_{CID}		-	1.15	-	times/°C
Cut-off frequency	f_c	$V_R=100$ V	-	60	-	MHz
Terminal capacitance	C_t	$V_R=100$ V, $f=1$ MHz	-	10	20	pF
Noise equivalent power	NEP	$\lambda=\lambda_p$, $V_R=100$ V	-	1.1×10^{-14}	-	W/Hz ^{1/2}

■ Spectral response



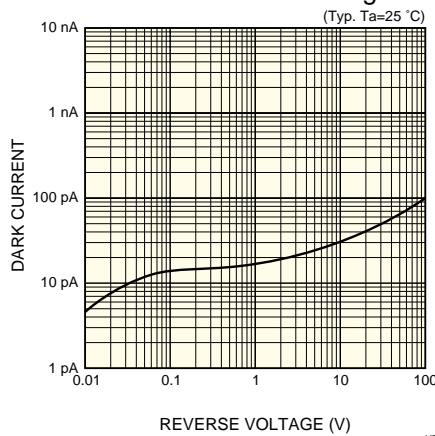
KPINB0181EA

■ Photo sensitivity temperature characteristic



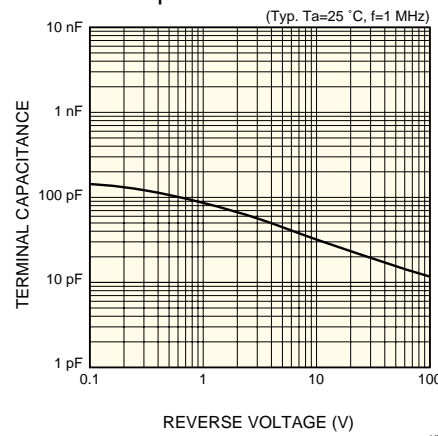
KPINB0182EA

■ Dark current vs. reverse voltage



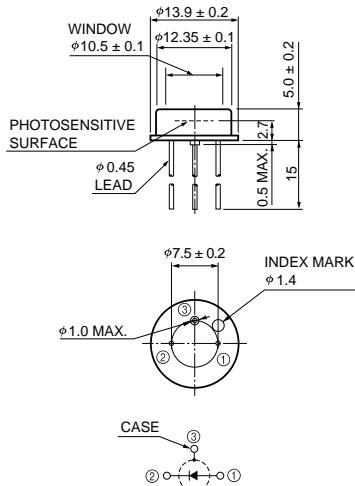
KPINB0183EB

■ Terminal capacitance vs. reverse voltage



KPINB0184EB

■ Dimensional outline (unit: mm)



KPINA0027ED

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