

Silicon Photodiodes KPD1803K

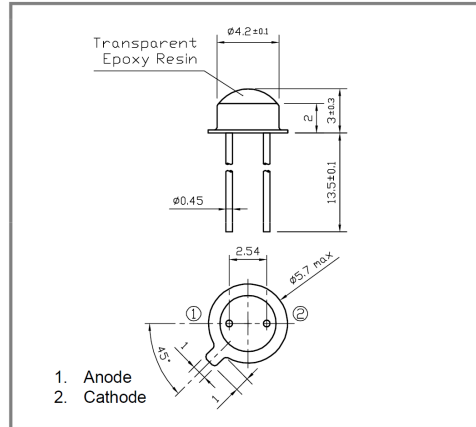
■ Features

- Transparent epoxy lens
- Broad directivity

■ Applications

- Optical switches
- Optical encoders
- Remote control
- Sensors and industrial controls

Dimensions (unit: mm)



■ Specifications

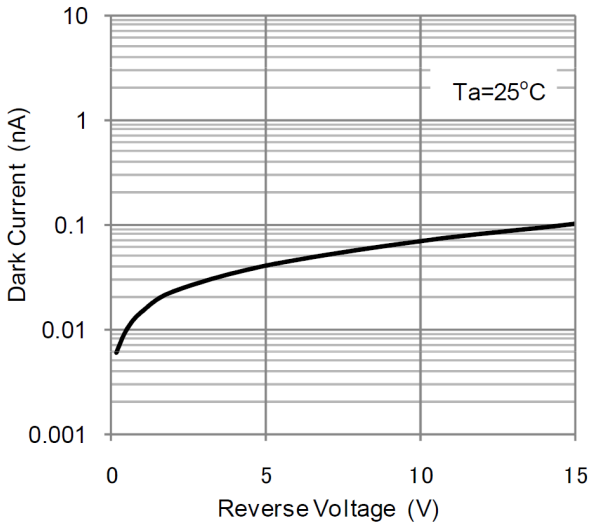
▼ Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	10	V	
Reverse Current	I_R	0.5	mA	
Forward current	I_F	10	mA	
Operating temperature	T_{opr}	-20 to +100		Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100		Avoid dew condensation

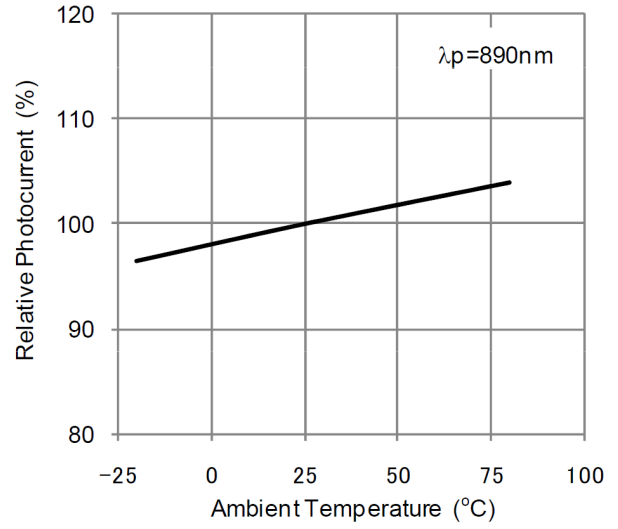
▼ Electrical and Optical characteristics

Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Sensitive size	S		1.30x1.60		mm^2	
Operating voltage	V_{opr}			5	V	
Sensitive wavelength		400	840(p)	1100	nm	p=Peak wavelength
Open circuit voltage	V_{op}		450		mV	1000lx @2856k
Short Circuit Current	I_{sh}		24		μA	1000lx @2856k
Dark current	I_D			1	nA	$V_R=5V$
Terminal capacitance	C_t		250		pF	$V_R=0V, f=1\text{MHz}$
Half angle	2		120		deg	

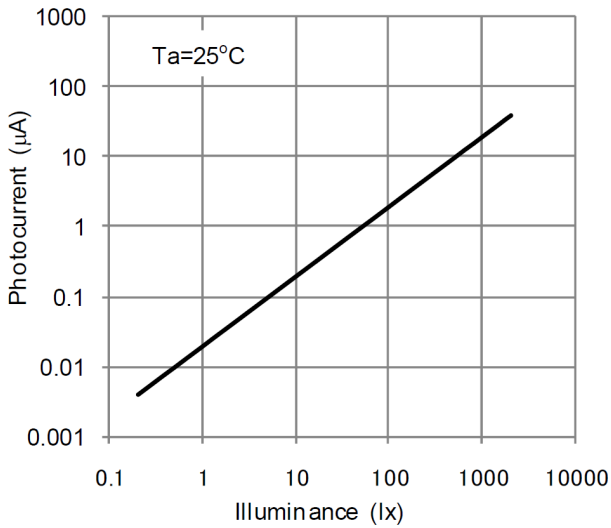
Dark Current - Reverse Voltage



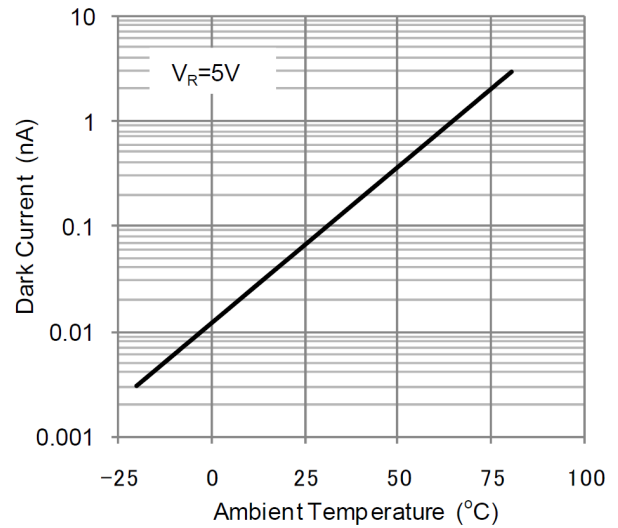
Photocurrent - Ambient Temperature



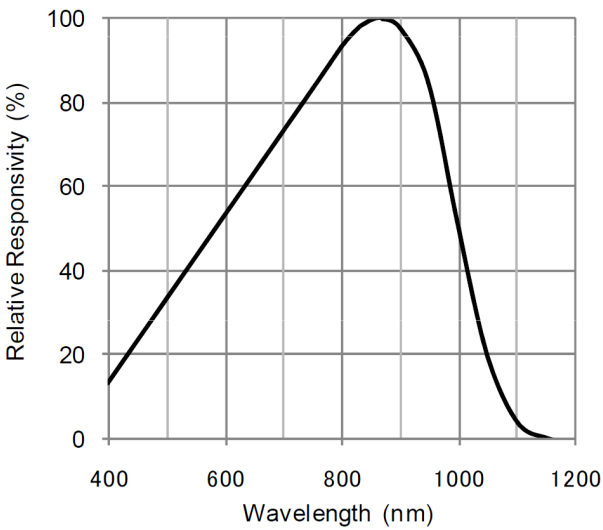
Photocurrent - Illuminance



Dark Current - Ambient Temperature



Spectral Responsivity



Directivity

