

# Silicon Photodiodes KPD30S

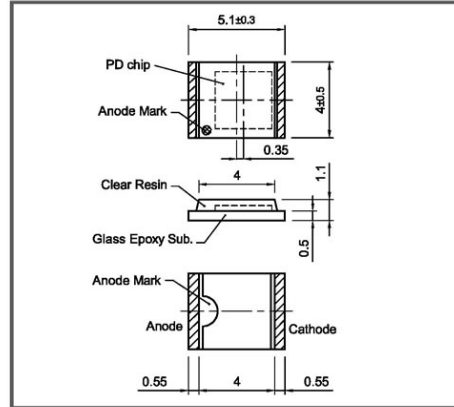
## Features

- Transparent epoxy mold
- High sensitivity

## Applications

- Optical switches
- Optical encoders
- Pulse detectors
- Sensors and industrial controls

Dimensions (unit: mm)



## Specifications

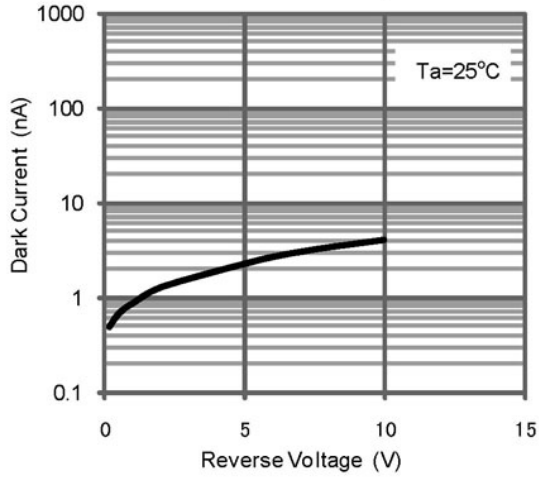
### Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	5	V	
Reverse Current	$I_R$	1	mA	
Forward current	$I_F$	10	mA	
Operating temperature	$T_{opr}$	-20 to +80		Avoid dew condensation
Storage temperature	$T_{stg}$	-30 to +85		Avoid dew condensation
Soldering temperature	$T_{sol}$	260		Soldering time less than 3 seconds

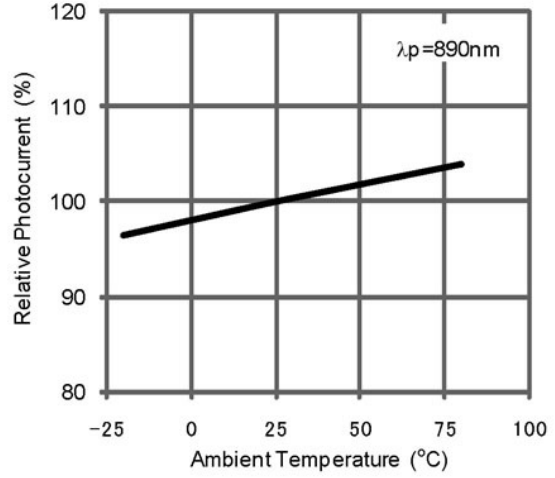
### Electrical and Optical characteristics

Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Sensitive size	S		2.59x2.59		mm	
Operating voltage	$V_{opr}$			5	V	
Sensitive wavelength		400	950( $\rho$ )	1000	nm	$\rho$ =Peak wavelength
Open circuit voltage	$V_{op}$		350		mV	1000lx @2856k
Short Circuit Current	$I_{sh}$		68		$\mu$ A	1000lx @2856k
Dark current	$I_D$			30	nA	$V_R=5V$
Terminal capacitance	$C_t$		17		pF	$V_R=5V, f=1MHz$
Half angle	2		120		deg	

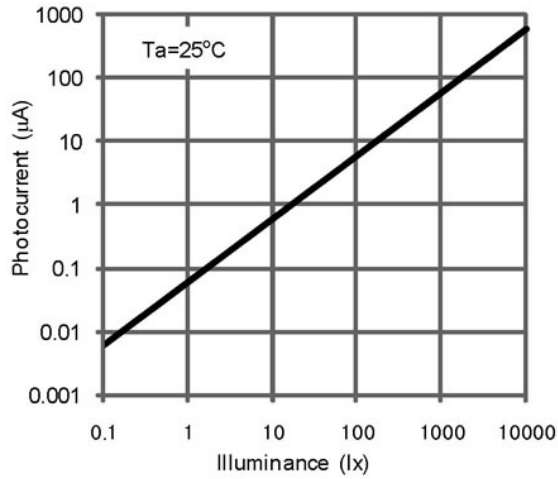
**Dark Current - Reverse Voltage**



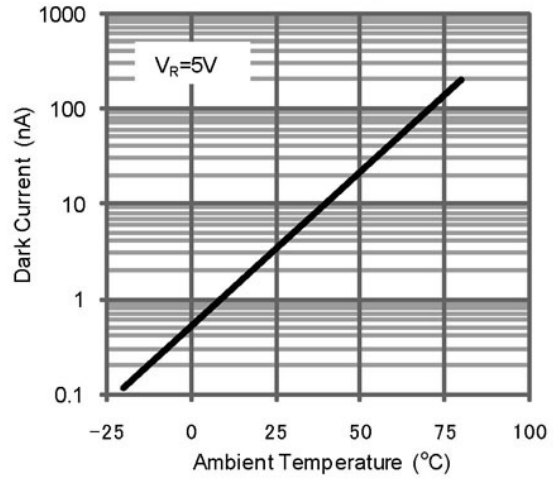
**Photocurrent - Ambient Temperature**



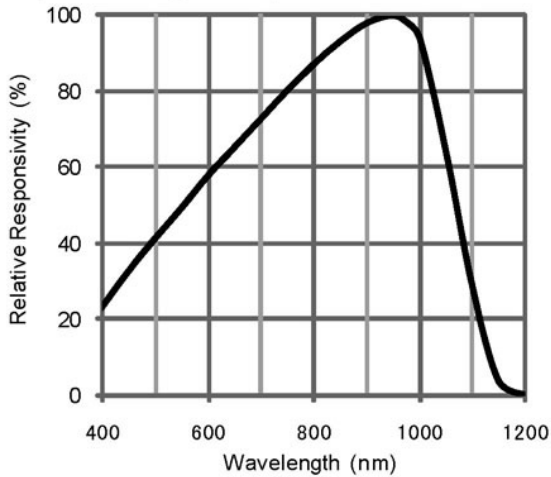
**Photocurrent - Illuminance**



**Dark Current - Ambient Temperature**



**Spectral Responsivity**



**Directivity**

