

## Si Photodiode

KPD101M51

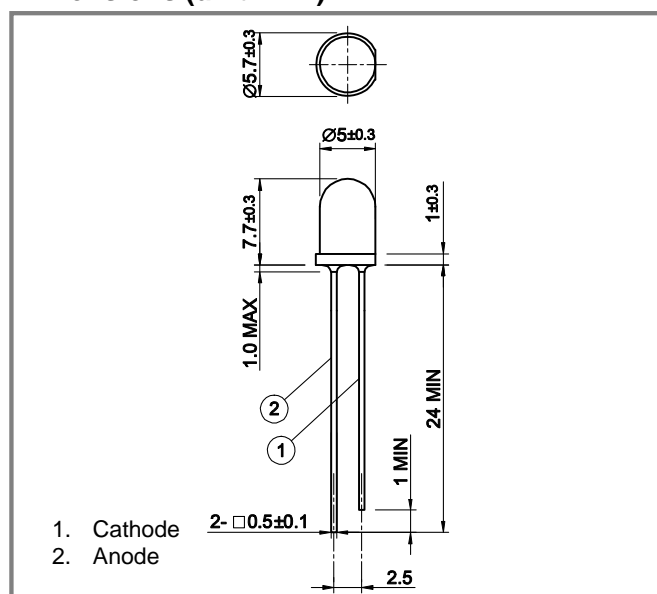
## Features

- Transparent epoxy mold
- High sensitivity

## Applications

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

## Dimensions (unit: mm)



## Absolute Maximum Ratings

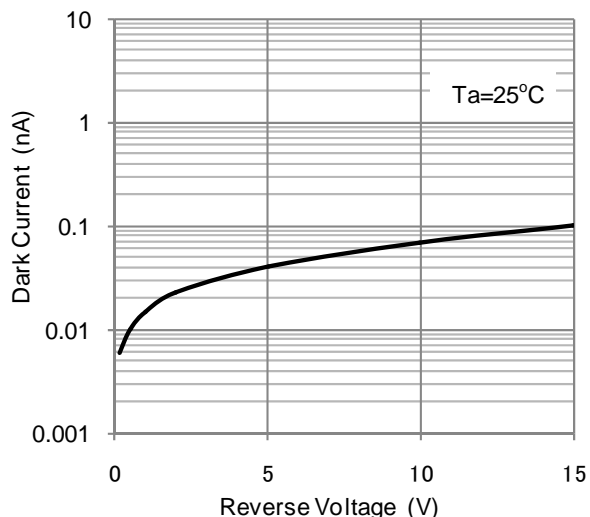
Parameter	Symbol	Value	Unit	Note
Reverse voltage	$V_R$	10	V	
Reverse current	$I_R$	1	mA	
Forward current	$I_F$	10	mA	
Operating temperature	$T_{opr}$	-20 to +80	°C	Avoid dew condensation
Storage temperature	$T_{stg}$	-20 to +100	°C	Avoid dew condensation
Soldering Temperature	$T_{sol}$	260	°C	5sec max

Electrical and Optical Characteristics ( $T_a=25\text{ }^\circ\text{C}$  unless otherwise noted)

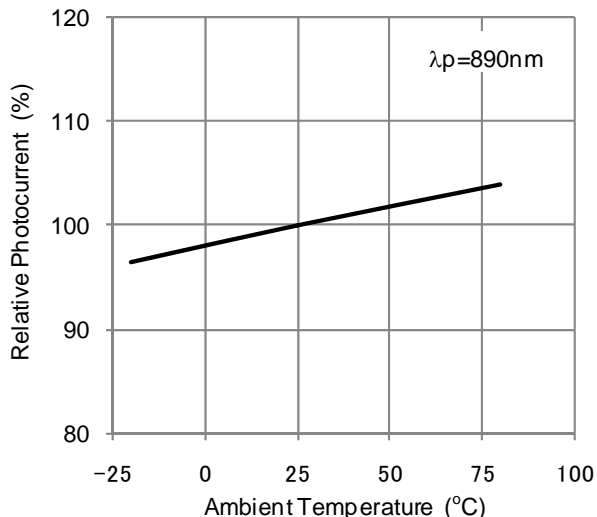
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Active area	S	0.81 x 0.81			mm	
Operating voltage	$V_{opr}$	-	-	5	V	
Sensitive wavelength	$\lambda$	400	850( $\lambda_p$ )	1000	nm	$\lambda_p$ =Peak wavelength
Open circuit voltage	$V_{op}$	-	400	-	mV	1000lx @2856K
Short circuit current	$I_{sh}$	-	19	-	$\mu\text{A}$	1000lx @2856K
Dark current	$I_D$	-	-	10	nA	$V_R=5\text{V}$
Terminal capacitance	$C_t$	-	21	-	pF	$V_R=5\text{V}$ , $f=1\text{MHz}$
Half angle	$2\theta$	-	76	-	deg	

Specifications are subject to change without notice.

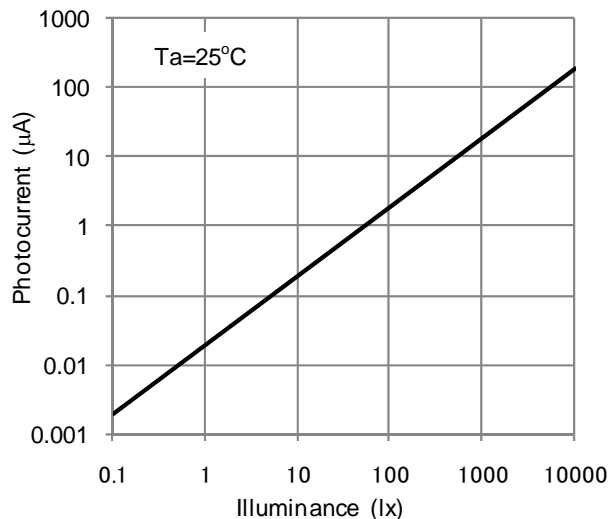
**Dark Current - Reverse Voltage**



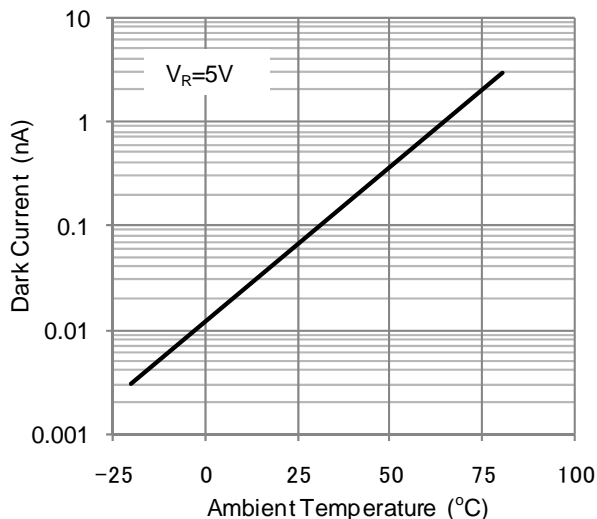
**Photocurrent - Ambient Temperature**



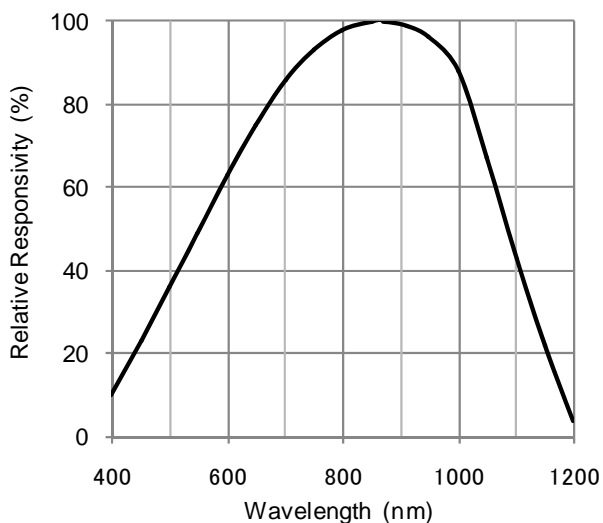
**Photocurrent - Illuminance**



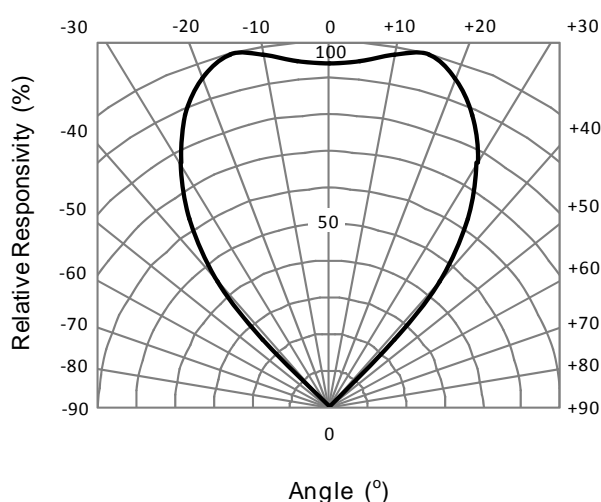
**Dark Current - Ambient Temperature**



**Spectral Responsivity**



**Directivity**



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**Contacts:**

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