

# Silicon Photodiodes KPD101M51

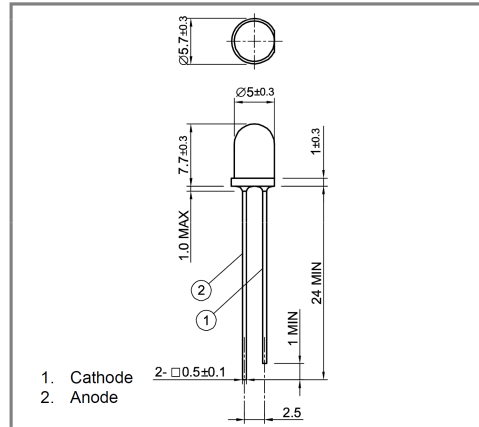
## Features

- Transparent epoxy mold
- High sensitivity

## Applications

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

Dimensions (unit: mm)



## Specifications

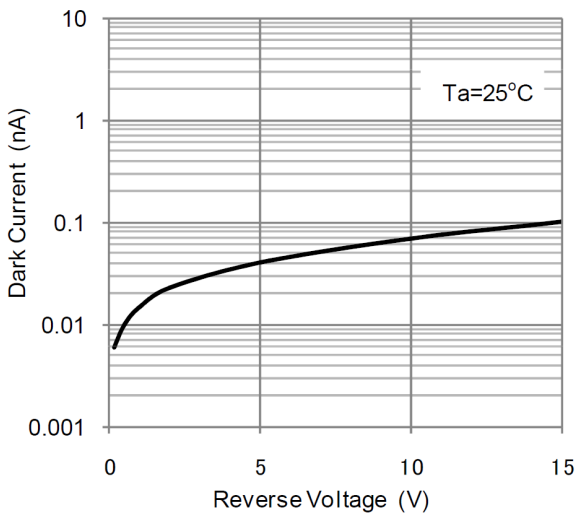
### Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	10	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	$T_{stg}$	-20 to +100		Avoid dew condensation
Soldering temperature	$T_{sol}$	260		Soldering time less than 5 seconds

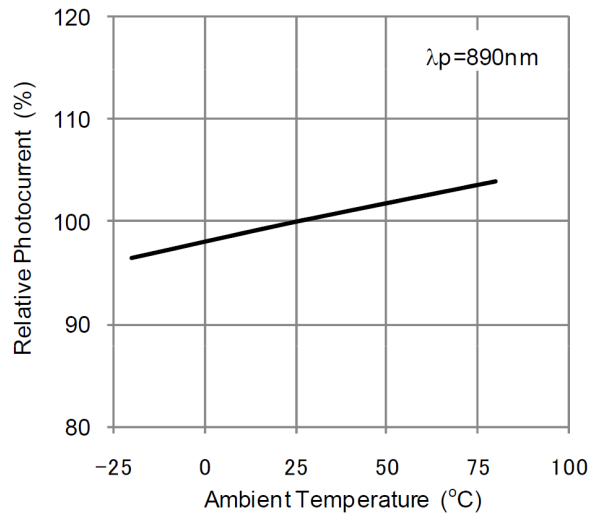
### Electrical and Optical characteristics

Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Sensitive size	S		0.81x0.81		mm <sup>2</sup>	
Operating voltage	$V_{opr}$			5	V	
Sensitive wavelength		400	850( p)	1100	nm	p=Peak wavelength
Open circuit voltage	$V_{op}$		400		mV	1000lx @2856k
Short Circuit Current	$I_{sh}$		19		μA	1000lx @2856k
Dark current	$I_D$			10	nA	$V_R=5V$
Terminal capacitance	$C_t$		21		pF	$V_R=5V, f=1MHz$
Half angle	2		76		deg	

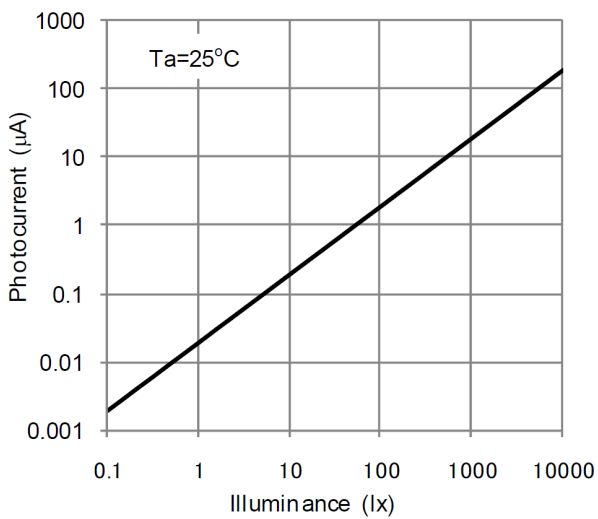
**Dark Current - Reverse Voltage**



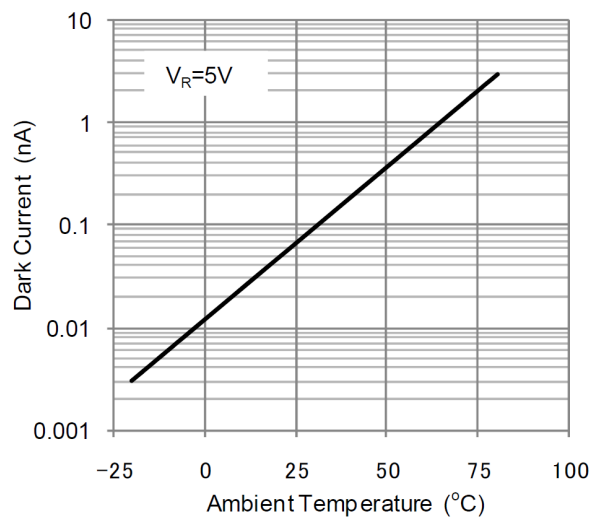
**Photocurrent - Ambient Temperature**



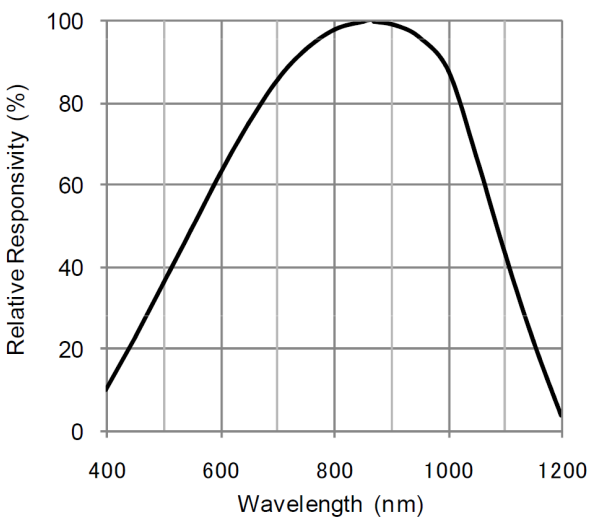
**Photocurrent - Illuminance**



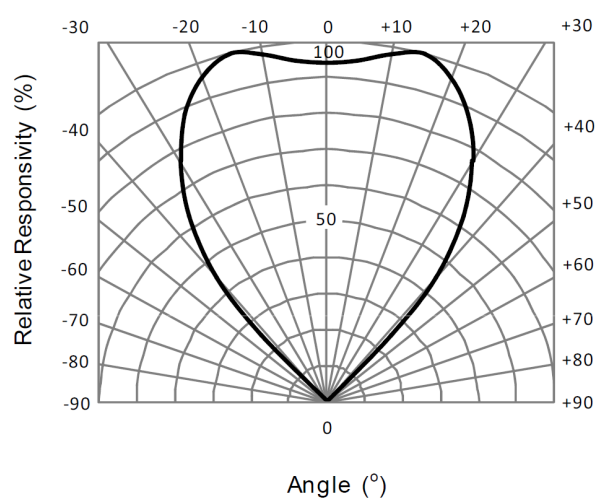
**Dark Current - Ambient Temperature**



**Spectral Responsivity**



**Directivity**



Specifications are subject to change without notice.