

## Si Photodiodes KPD101M31

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### Characteristics

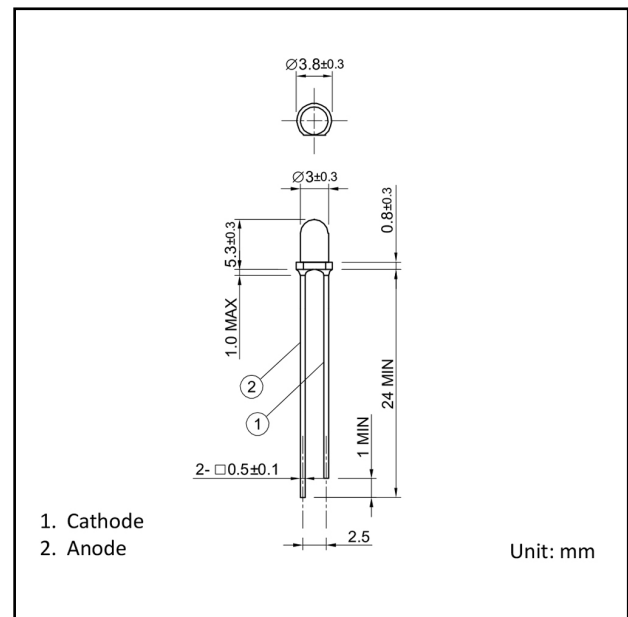
- Transparent epoxy mold
- High sensitivity

### Applications

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

### Package

- MOLD



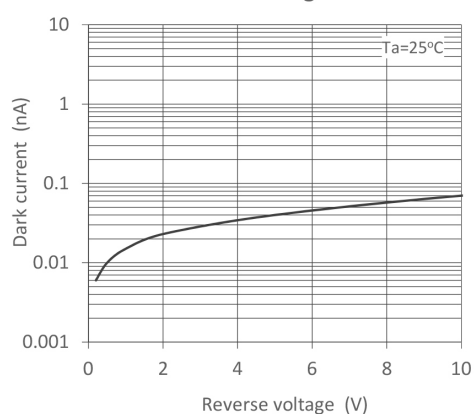
## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	10	V	-
			null	
Reverse Current	$I_R$	1	mA	-
			null	
Forward current	$I_F$	10	mA	-
			null	
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

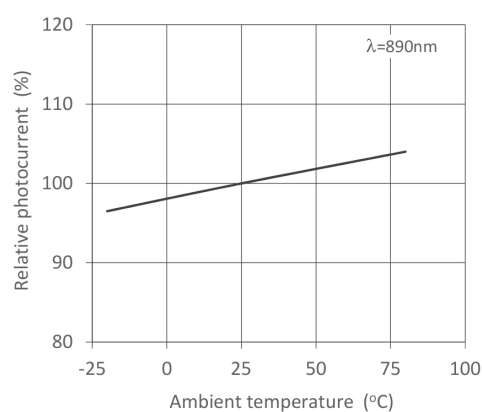
## Electrical and Optical characteristics (Ta=25 unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	S	-	0.81x0.81	-	mm <sup>2</sup>	-
					null	
Sensitive wavelength		400	850( p)	1100	nm	p=Peak wavelength
					null	
Open circuit voltage	$V_{op}$	-	400	-	mV	1000lx @2856k
Short Circuit Current	$I_{sh}$	-	30	-	μA	1000lx @2856k
Dark current	$I_D$	-	-	10	nA	$V_R=5V$
					null	
Terminal capacitance	$C_t$	-	14	-	pF	$V_R=5V$ f=1MHz
					null	
Half angle	2	-	60	-	deg.	-

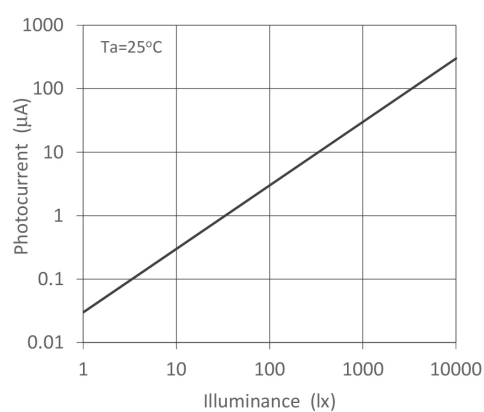
Dark Current - Reverse Voltage



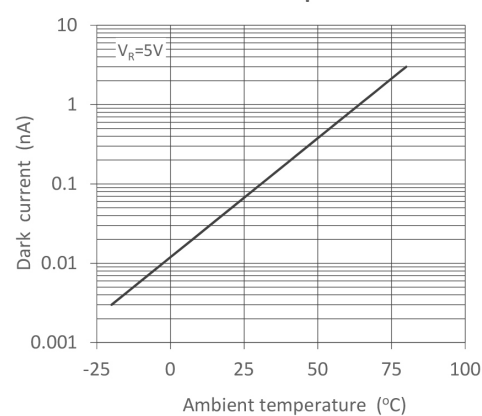
Photocurrent - Ambient Temperature



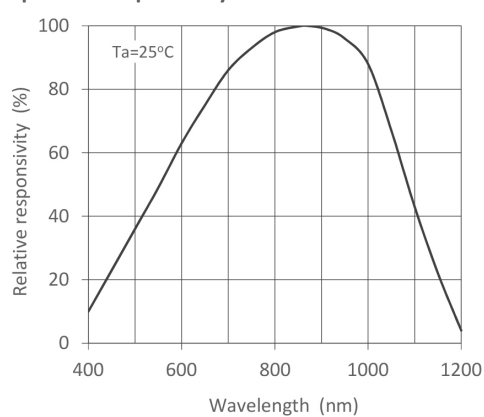
Photocurrent - Illuminance



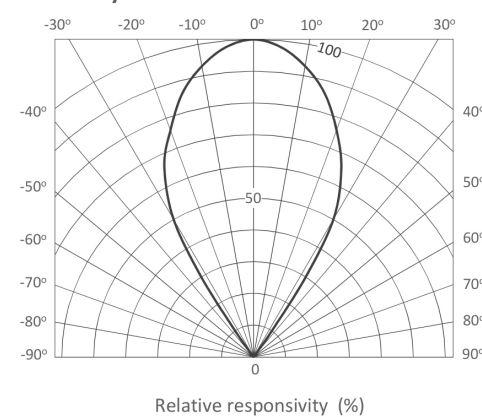
Dark Current - Ambient Temperature



Spectral Responsivity



Directivity



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## Dexerials Corporation

1724 Shimotsuboyama, Shimotsuke-shi, Tochigi 323-0194, Japan

TEL: +81-285-39-7950 <https://www.dexerials.jp/en/>