

## Si Photodiodes

### KPD1803K

#### Characteristics

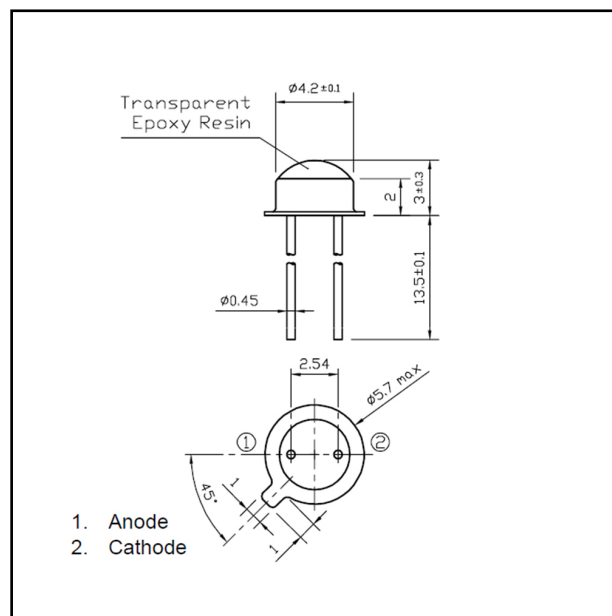
- Transparent epoxy lens
- Broad directivity

#### Applications

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

#### Package

- STEM



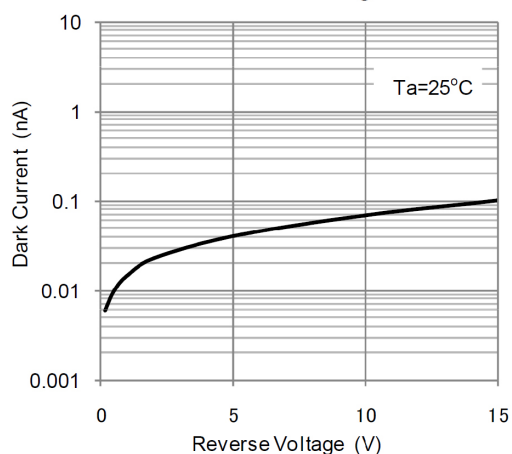
## Absolute Maximum Ratings

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

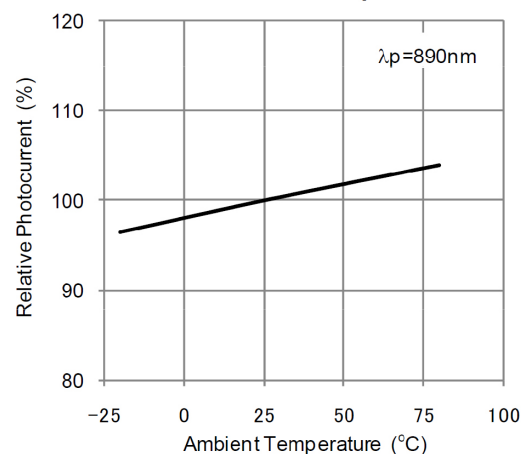
## Electrical and Optical characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	S	-	1.30x1.60	-	mm <sup>2</sup>	-
					null	
Sensitive wavelength		400	840( $\lambda_p$ )	1100	nm	$\lambda_p$ =Peak wavelength
					null	
Open circuit voltage	$V_{op}$	-	450	-	mV	1000lx @2856k
Short Circuit Current	$I_{sh}$	-	24	-	$\mu$ A	1000lx @2856k
Dark current	$I_D$	-	-	1	nA	$V_R=5V$
					null	
Terminal capacitance	$C_t$	-	250	-	pF	$V_R=0V$ f=1MHz
					null	
Half angle	2	-	120	-	deg.	-

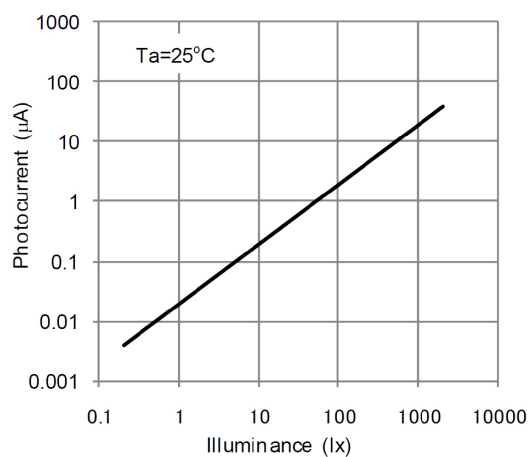
**Dark Current - Reverse Voltage**



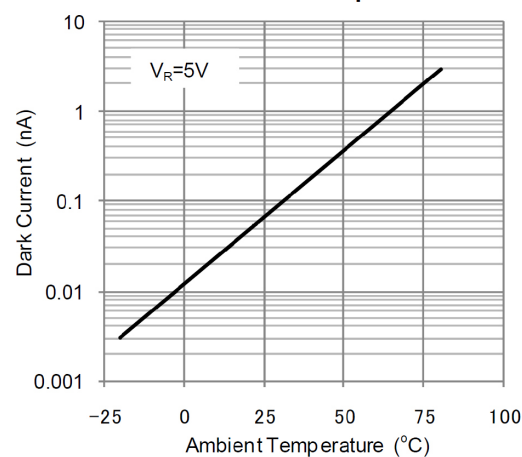
**Photocurrent - Ambient Temperature**



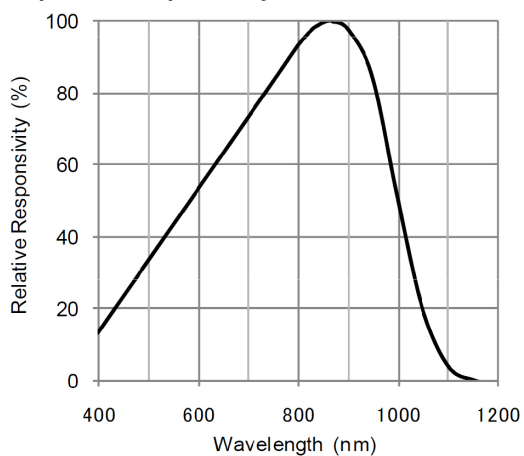
**Photocurrent - Illuminance**



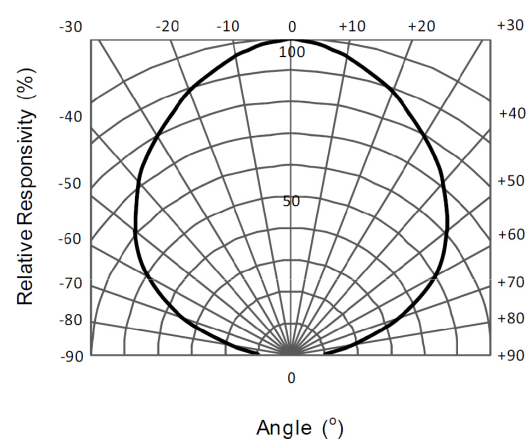
**Dark Current - Ambient Temperature**



**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/>