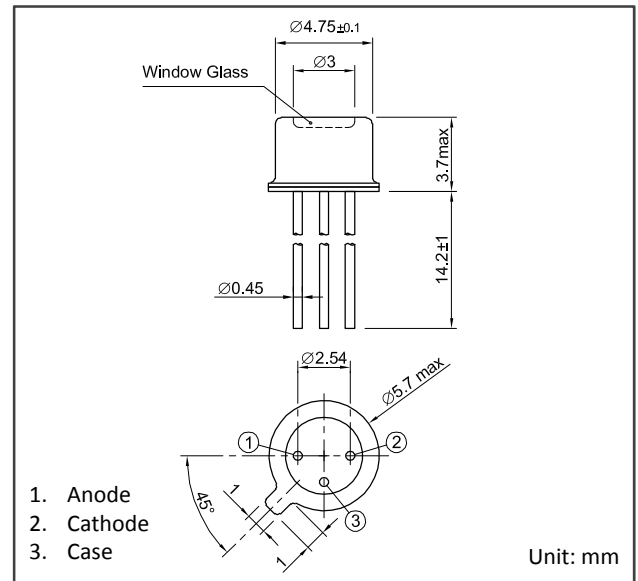


Features

- 2GHz response with 200 μ m active diameter
- 0.4GHz response with 500 μ m active diameter
- Low dark current
- Low voltage operation
- Various package option

Applications

- Short wavelength optical communications
- Optical measurement
- Optical sensors

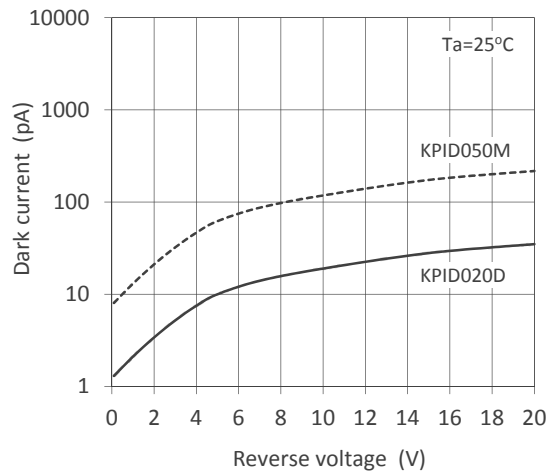
**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Reverse voltage	V_R	50	V	
Reverse current	I_R	10	mA	
Forward current	I_F	1	mA	
Operating temperature	T_{opr}	-40 to +85	°C	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85	°C	Avoid dew condensation
Soldering temperature	T_{sol}	260	°C	Max 5 sec.

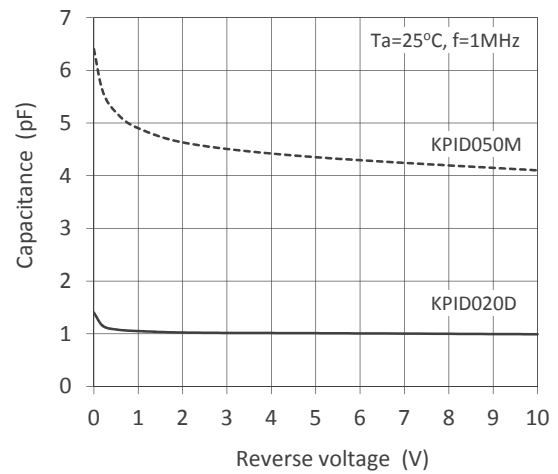
Electrical and Optical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Active diameter	KPID020D	200			μm	
	KPID050M	500				
Sensitive wavelength	λ	400	-	1000	nm	
Responsivity	R	-	0.35	-	A/W	$V_R=3\text{V}$, $\lambda=850\text{nm}$
Dark current	KPID020D	-	10	40	pA	$V_R=3\text{V}$
	KPID050M	-	40	160		
Total capacitance	KPID020D	-	1.2	1.6	pF	$V_R=3\text{V}$, $f=1\text{MHz}$
	KPID050M	-	4.5	5.5		
Cutoff frequency	KPID020D	-	2.0	-	GHz	$V_R=3\text{V}$, $R_L=50\Omega$
	KPID050M	-	0.4	-		

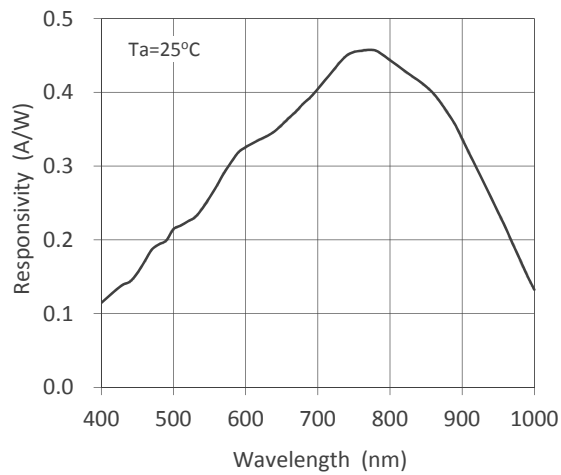
Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



Spectral Responsivity



- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

Opto-technologies for the Future



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