

Si Photodiodes KPID050M-H8

Characteristics

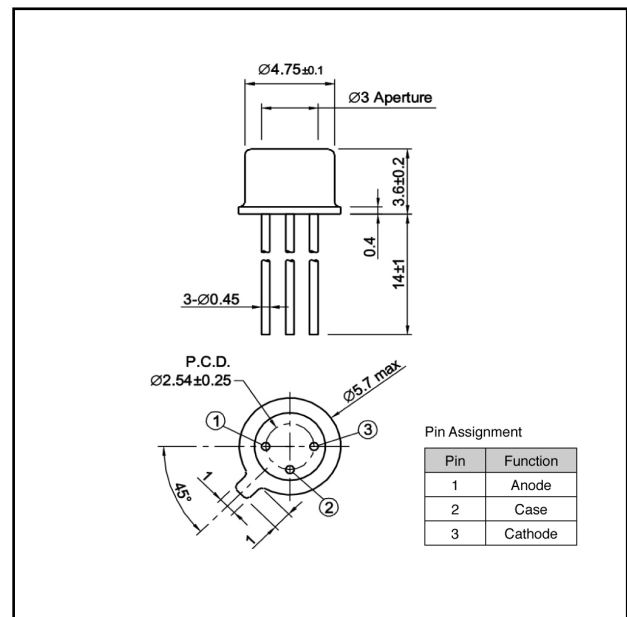
- 2GHz response with 200 μ m active diameter
- 0.4GHz response with 500 μ m active diameter
- Low dark current
- Low voltage operation
- Various package option

Applications

- Short wavelength optical communications
- Optical measurement
- Optical sensors

Package

- TO-CAN



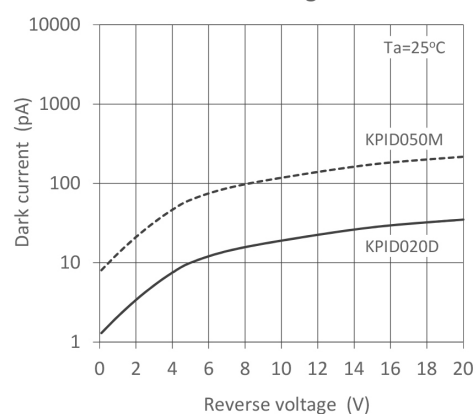
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
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		Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85		Avoid dew condensation
Soldering temperature	T_{sol}	260		Soldering time less than 5 seconds

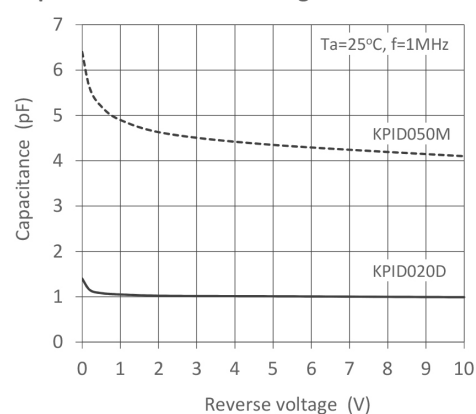
Electrical and Optical characteristics (Ta=25 unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	S	-	500	-	μm	-
Sensitive wavelength		400	-	1000	nm	-
Responsivity	R	-	0.35	-	A/W	$V_R=3V$ $\lambda=850\text{nm}$
Dark current	I_D	-	40	160	pA	$V_R=3V$
Total capacitance	C_t	-	4.5	5.5	pF	$V_R=3V$ $f=1\text{MHz}$
Cutoff frequency	f_c	-	0.4	-	GHz	$V_R=3V$ $R_L=50$

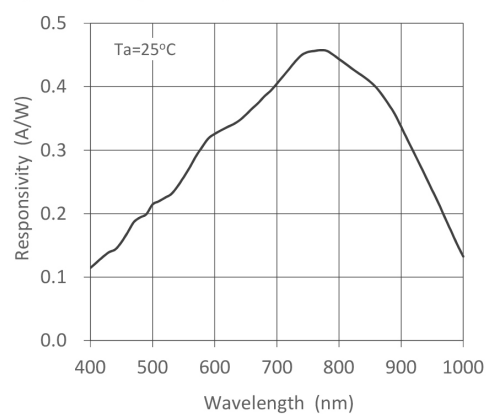
Dark Current - Reverse Voltage



Capacitance - Reverse Voltage



Spectral Responsivity



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