

Si PIN Photodiodes KPID050M

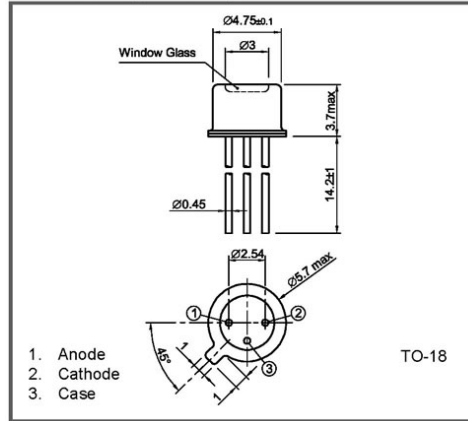
Features

- 2GHz response with 200 μ m active diameter
- 0.4GHz response with 500 μ m active diameter
- Low dark current (Typ.10pA @ VR=3V)
- Low voltage operation
- Various package options are also available
[Package option](#)

Applications

- Short wavelength optical communication
- Optical measurement
- Optical sensors

Dimensions (unit: mm)



Specifications

Absolute Maximum Ratings

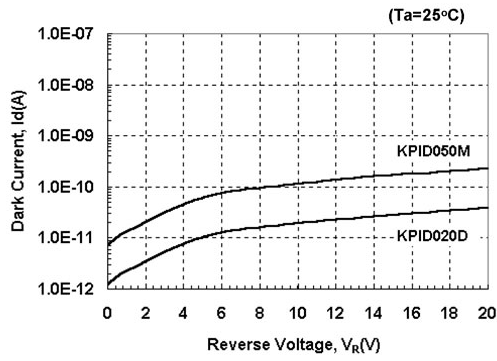
Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	50	V	
Reverse Current	I_R	10	mA	
Forward current	I_F	1	mA	
Operating temperature	T_{opr}	-40 to +85		Avoid dew condensation
Storage temperature	T_{stg}	-40 to +85		Avoid dew condensation
Soldering temperature	T_{sol}	260		Soldering time less than 5 seconds

Electrical and Optical characteristics

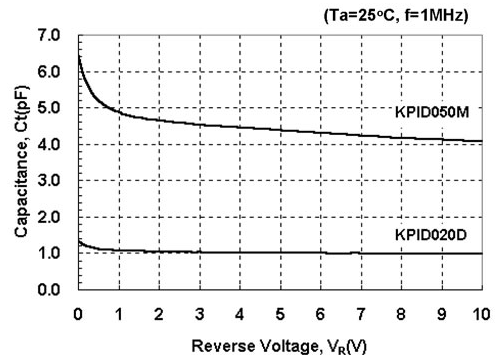
Parameter	Symbol	Value			Unit	Conditions
		Min.	Typ.	Max		
Sensitive size	D		500		μ m	
Sensitive wavelength		400		1000	nm	
Responsivity	R		0.35		A/W	$V_R=3V, \lambda=850nm$
Dark current	I_D		40	160	pA	$V_R=3V$
Total capacitance	C_t		4.5	5.5	pF	$V_R=3V, f=1MHz$
Cutoff frequency	f_c		0.4		GHz	$R_L=50, V_R=3V$

KPID020D/KPID050M

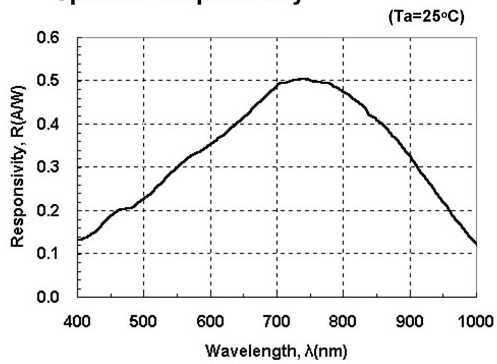
I-V characteristics



C-V characteristics



Spectral responsivity



(0905/KPID020D, KPID050M)

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