

## InGaAs Photodiodes

### KPDB086S-H8

#### Characteristics

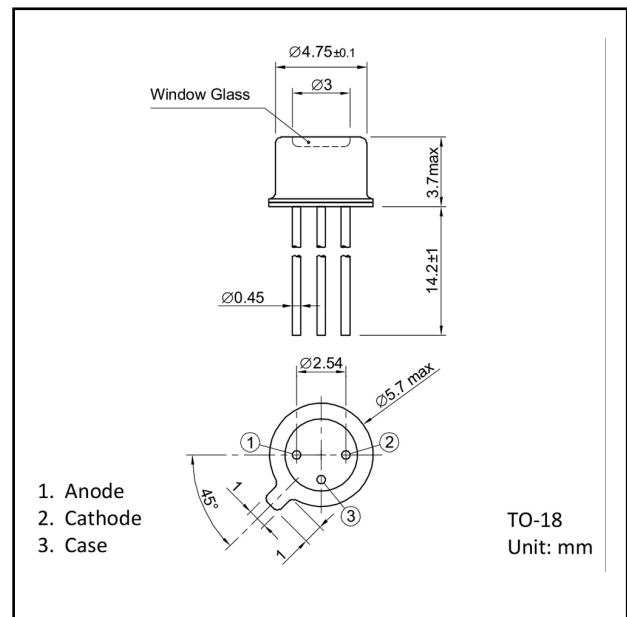
- 0.86mm sq. large sensitive area
- Low dark current
- Low voltage operation

#### Applications

- Near infrared sensors
- Laser diode and LED power monitors
- Near infrared spectroscopy
- Power meters

#### Package

- TO-CAN



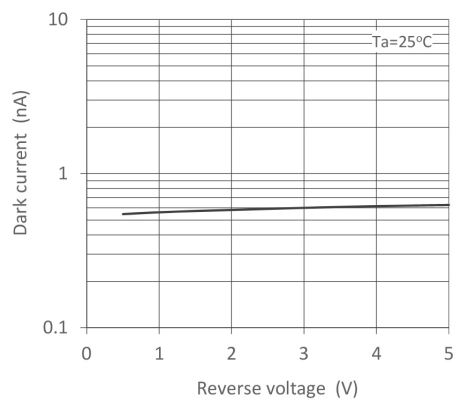
## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	5	V	-
Reverse Current	$I_R$	2	mA	-
Forward current	$I_F$	10	mA	-
Operating temperature	$T_{opr}$	-40 to +85		Avoid dew condensation
Storage temperature	$T_{stg}$	-55 to +125		Avoid dew condensation
Soldering temperature	$T_{sol}$	260		Soldering time less than 5 seconds

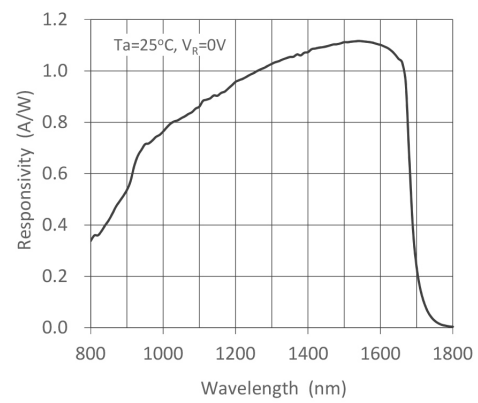
## Electrical and Optical characteristics (Ta=25 unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Active area	S	-	0.86 x 0.86	-	mm <sup>2</sup>	-
Sensitive wavelength		800	-	1700	nm	-
Bandwidth	BW	-	50	-	MHz	$V_R=1V$ $R_L=50$
Responsivity	R	-	0.45 1.1	-	A/W	$V_R=0V$ =850nm $V_R=0V$ =1550nm
Dark current	$I_D$	-	1	10	nA	$V_R=1V$
Total capacitance	$C_t$	-	35	-	pF	$V_R=1V$ f=1MHz

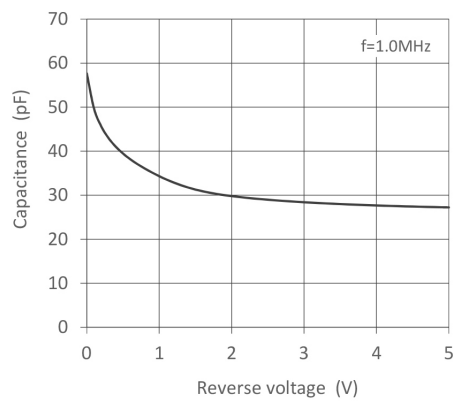
Dark Current - Reverse Voltage



Spectral Responsivity



Capacitance - Reverse Voltage



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