

### FEATURES

- Ø 7.98 mm active area
- Low dark current
- Long term stability
- High shunt resistance

### DESCRIPTION

50.0 mm<sup>2</sup> Low Dark Current PIN Photodiode. Packaged in a TO-8 with a non-hermetic ultra flat fused silica glass window cap. Also available with six pin isolated case package.

### APPLICATIONS

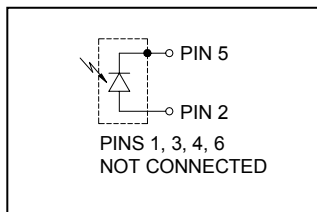
- Precision photometry
- Bar code readers
- Medical equipment
- Pulsed light sensor



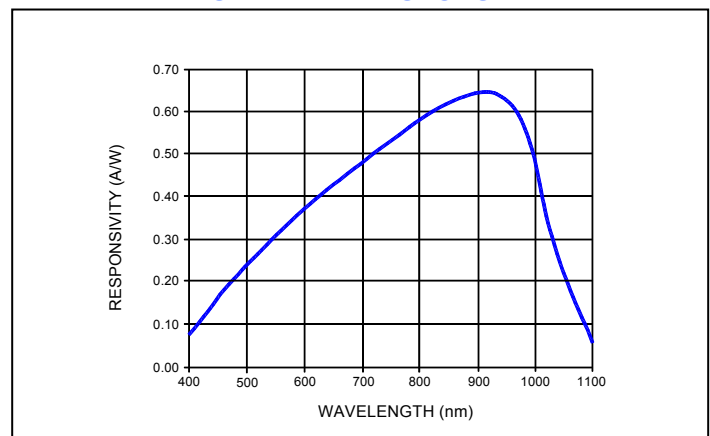
### ABSOLUTE MAXIMUM RATING

SYMBOL	PARAMETER	MIN	MAX	UNITS
T <sub>STG</sub>	Storage Temp	-20	+80	°C
T <sub>OP</sub>	Operating Temp	-20	+60	°C
V <sub>R(OP)</sub>	Reverse Operating Voltage	-	50	V
I <sub>(PEAK)</sub>	Peak DC Current	-	10	mA

### SCHEMATIC



### SPECTRAL RESPONSE



### ELECTRO-OPTICAL CHARACTERISTICS @ 22° C

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
R <sub>SH</sub>	Shunt Resistance	V <sub>R</sub> = ±10 mV	100	300	---	MΩ
I <sub>D</sub>	Dark Current	V <sub>R</sub> = 10 V	---	0.5	---	nA
C	Capacitance	V <sub>R</sub> = 0 V;	---	480	---	pF
		V <sub>R</sub> = 10 V;	---	100	---	
	Responsivity	V <sub>R</sub> = 0 V; λ = 633 nm	---	0.40	---	A/W
		V <sub>R</sub> = 0 V; λ = 900 nm	---	0.64	---	
NEP	Noise Equivalent Power	V <sub>R</sub> = 10 V; λ = 850 nm; R <sub>L</sub> = 50 Ω	---	2.5 × 10 <sup>-14</sup>	---	W/Hz <sup>1/2</sup>
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> = 10 μA	100	---	---	V
t <sub>r</sub>	Rise Time	V <sub>R</sub> = 10 V; λ = 850 nm; R <sub>L</sub> = 50 Ω	---	30	---	ns
		V <sub>R</sub> = 80 V; λ = 850 nm; R <sub>L</sub> = 50 Ω	---	7	---	

Disclaimer: Due to our policy of continued development, specifications are subject to change without notice.

#### USA:

Pacific Silicon Sensor, Inc.  
5700 Corsa Avenue, #105  
Westlake Village, CA 91362 USA  
Phone (818) 706-3400  
Fax (818) 889-7053  
Email: [sales@pacific-sensor.com](mailto:sales@pacific-sensor.com)  
[www.pacific-sensor.com](http://www.pacific-sensor.com)

#### International sales:

Silicon Sensor International AG  
Peter-Behrens-Str. 15  
D-12459 Berlin, Germany  
Phone +49 (0)30-63 99 23 10  
Fax +49 (0)30-63 99 23 33  
Email: [sales@silicon-sensor.de](mailto:sales@silicon-sensor.de)  
[www.silicon-sensor.de](http://www.silicon-sensor.de)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[First Sensor:](#)

[PC50-6-TO8](#)