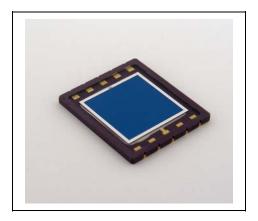
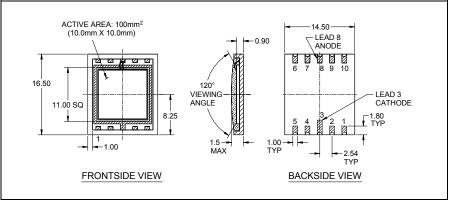


## Pacific Silicon Sensor Series 6 Data Sheet

Part Description PS100-6-SM Order # 01-048





#### **FEATURES**

- 10.0 mm square active area
- · Low dark current
- · Long term stability
- · High shunt resistance

#### **DESCRIPTION**

100 mm<sup>2</sup> Low Dark Current PIN Photodiode. Surface mount packaged with clear epoxy encapsulant.

#### **APPLICATIONS**

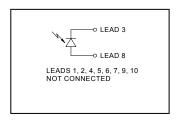
- Precision photometry
- Bar code readers
- Medical equipment
- Pulsed light sensor



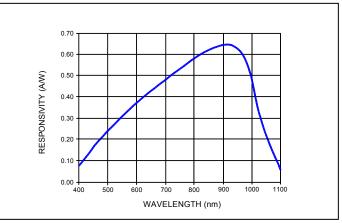
### **ABSOLUTE MAXIMUM RATING**

SYMBOL	PARAMETER	MIN	MAX	UNITS
T <sub>STG</sub>	Storage Temp	-20	+80	°C
T <sub>OP</sub>	Operating Temp	-20	+60	°C
$V_{R(OP)}$	Reverse Operating Voltage	ı	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	$V_R = \pm 10 \text{ mV}$	75	200		MΩ
$I_D$	Dark Current	V <sub>R</sub> = 10 V		0.5		nA
С	Capacitance	$V_R = 0 V;$		900		pF
		$V_R = 10 \text{ V};$		160		
	Responsivity	$V_R = 0 \text{ V}; \lambda = 633 \text{ nm}$		0.40		A/W
		$V_R = 0 \text{ V}; \lambda = 900 \text{ nm}$		0.64		
NEP	Noise Equivalent Power	$V_R$ = 10 V; $\lambda$ = 850 nm; $R_L$ = 50 $\Omega$		3.0 X 10 <sup>-14</sup>		W/Hz <sup>1/2</sup>
$V_{BR}$	Breakdown Voltage	I <sub>R</sub> = 10 μA	100			V
t <sub>r</sub>	Rise Time	$V_R = 10 \text{ V}; \lambda = 850 \text{ nm}; R_L = 50 \Omega$		50		ns
		$V_R = 80 \text{ V}; \lambda = 850 \text{ nm}; R_L = 50 \Omega$		7		

Disclaimer: Due to our policy of continued development, specifications are subject to change without notice. Package is not suitable for reflow soldering.

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