

Sensitivity Wavelength Range: 250-1100nm

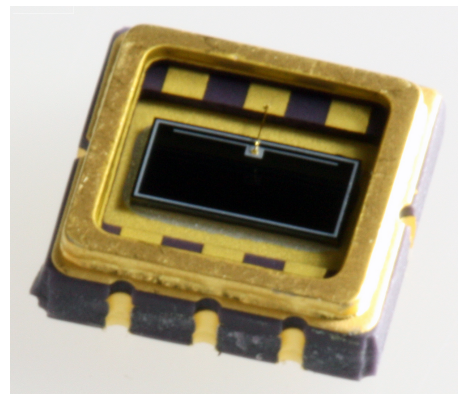
The MT03-029 is a rectangular (1.30 x 2.80) 3.6mm² active area Silicon Photodiode in a surface mount package with clear epoxy encapsulation. It is designed for applications requiring high red and near infrared (NIR) light sensitivity.

Features

- > Ultra Low Noise
- > High Shunt Resistance
- > Wide Dynamic Range
- > Broadband Spectral Coverage

Applications

- > Colorimeters
- > Photometers
- > Spectroscopy Equipment
- > Fluorescence



Absolute Maximum Ratings

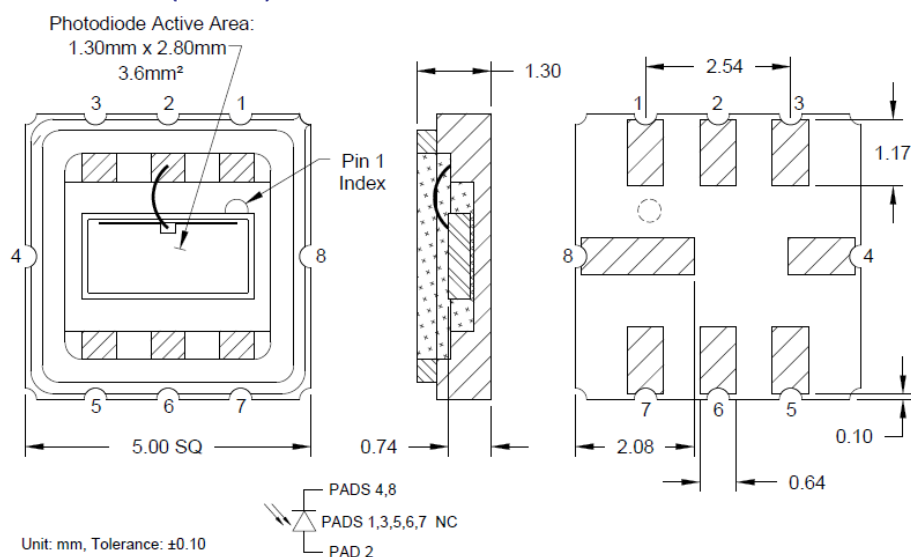
Items	Symbol	Rating	Unit
Reverse Voltage	V _R	50	V
Operating Temperature Range	T _{opr}	-40 ~ +100	°C
Storage Temperature Range	T _{stg}	-55 ~ +125	°C
Reflow Soldering Temperature	T _{ls}	250	°C



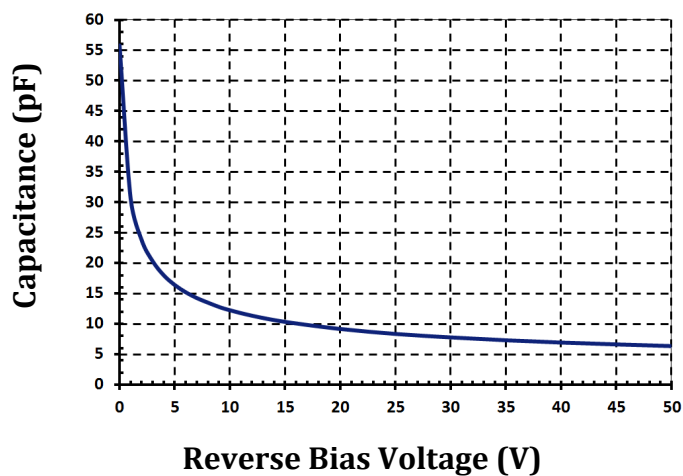
Electrical & Optical Characteristics (T_a = 23°C)

Items	Symbol	Conditions	MIN	TYP	MAX	Unit
Dark Current	I _d	V _R =5V	--	0.2	1.0	nA
Breakdown Voltage	V _(BR)	I _R =10μA	50	--	--	V
Spectral Sensitivity	λ	--	--	250-1100	--	nm
Peak Sensitivity	λ _p	--	--	940	--	nm
Wavelength Responsivity	R	V _R =0V, λ=633nm	--	0.45	--	A/W
Responsivity	R	V _R =0V, λ=950nm	--	0.64	--	A/W
Response Time @808nm	T _r	R _L =50Ω, V _R =5V	--	50	--	ns
Junction Capacitance	C _j	@ 1MHz, V _R =0V	--	60	--	pF
Junction Capacitance	C _j	@ 1MHz, V _R =5V	--	18	22	pF
Shunt Resistance	R _{sh}	V _R =10mV	700	1000	--	MΩ

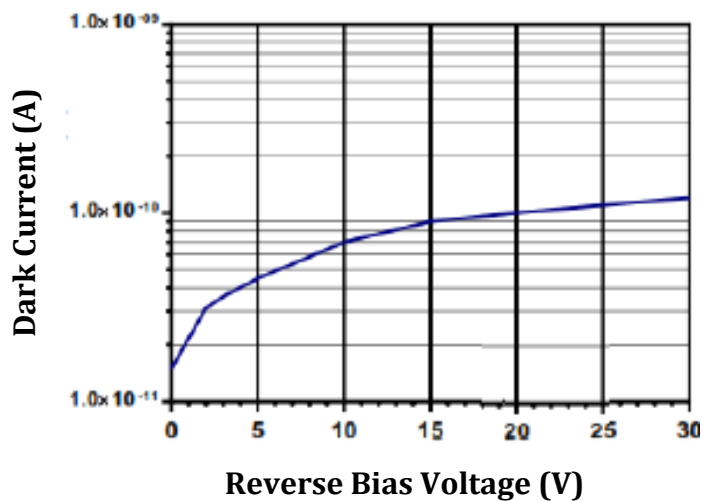
SMD Package Dimensions (8 Pad)



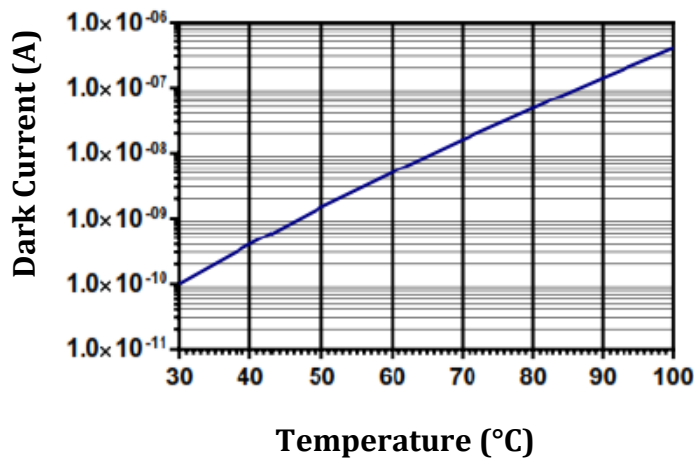
Capacitance vs Reverse Bias



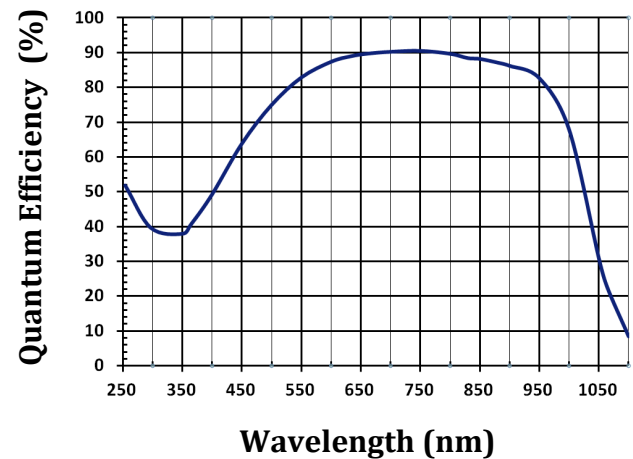
Dark Current vs Reverse Bias (23°C)



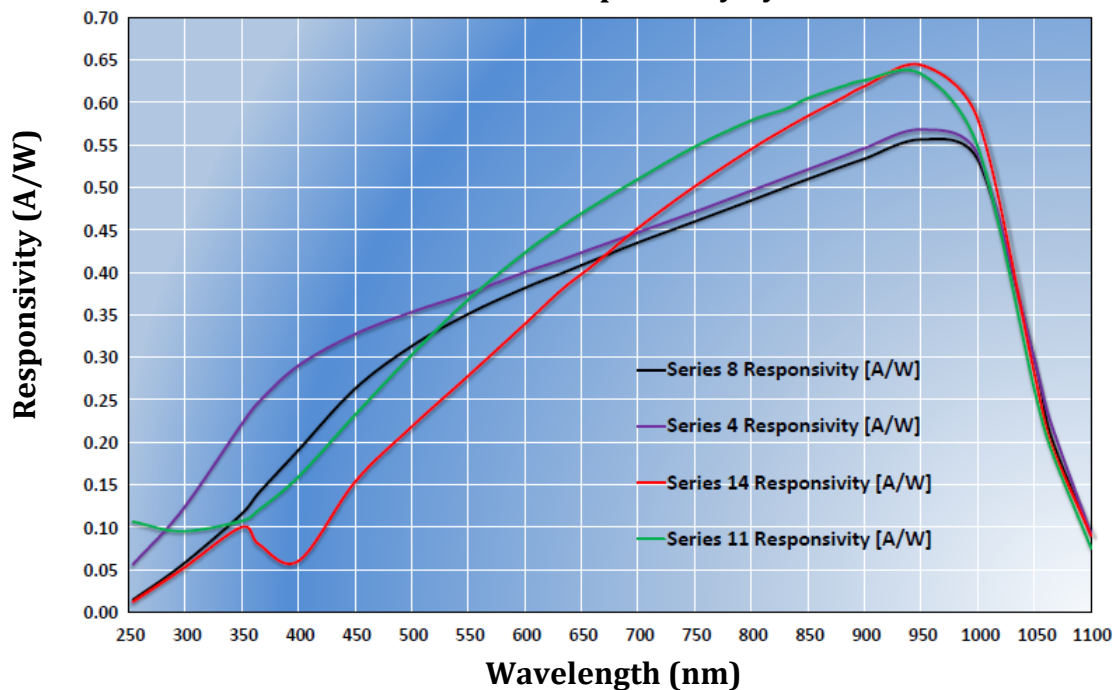
Dark Current vs Temperature ($V_r=10V$)



Series 11 Quantum Efficiency (23 $^{\circ}C$)



Photodiode Responsivity by Series



The information contained herein is subject to change without notice.

2019-06

Mouser Electronics

Authorized Distributor

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

[Marktech Optoelectronics:](#)

[MT03-029](#)