

Sensitivity Wavelength Range: 350nm ~ 1100nm

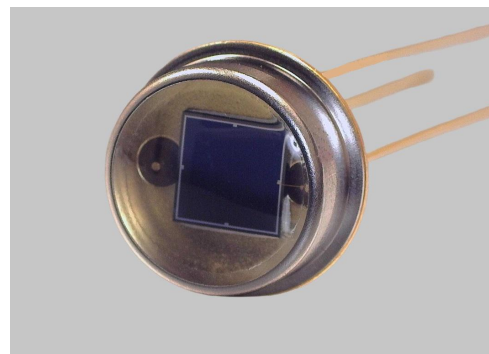
The MT03-094 is a square (5.0mm x 5.0mm) 25mm² active area Silicon Photodiode in a hermetic TO-8 metal package with a clear glass window. It is designed for applications requiring high red and near infrared (NIR) light sensitivity.

FEATURES

- > Ultra Low Noise
- > Very Low Dark Current
- > Wide Dynamic Range
- > Broadband Spectral Coverage

APPLICATIONS

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



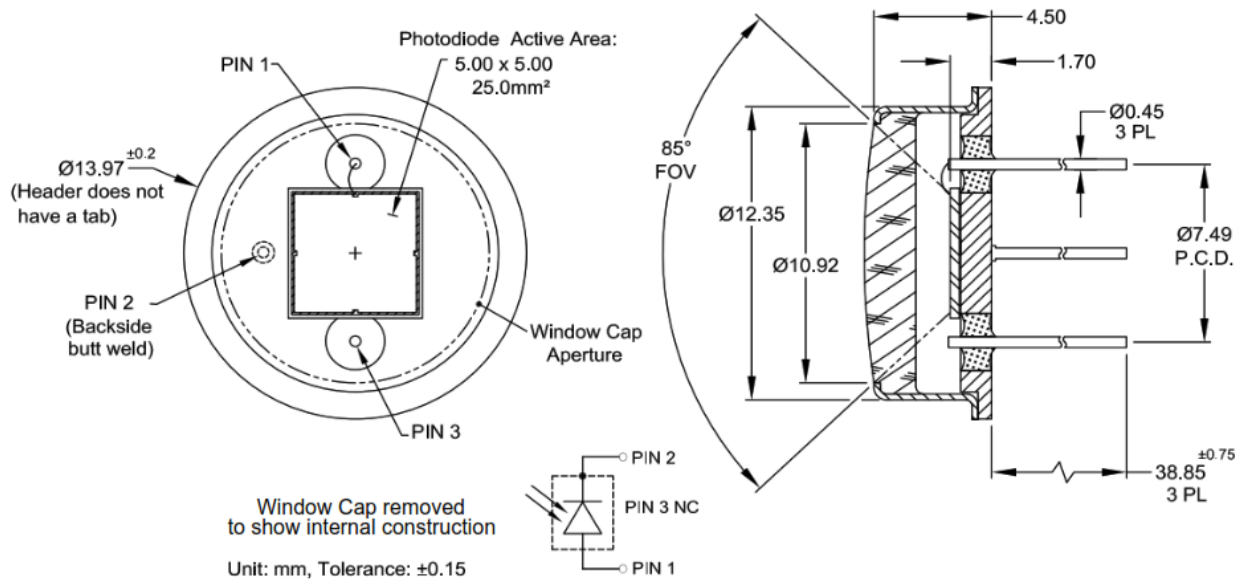
Absolute Maximum Ratings

ITEMS	SYMBOL	RATINGS	UNIT
Reverse Voltage	V _r	80	V
Operating Temperature Range	T _{opr}	-40 to +85	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C
Lead Soldering Temperature*1	T _{ls}	260	°C
*1: Time 5 Sec max, Position: Up to 3mm from the body.			

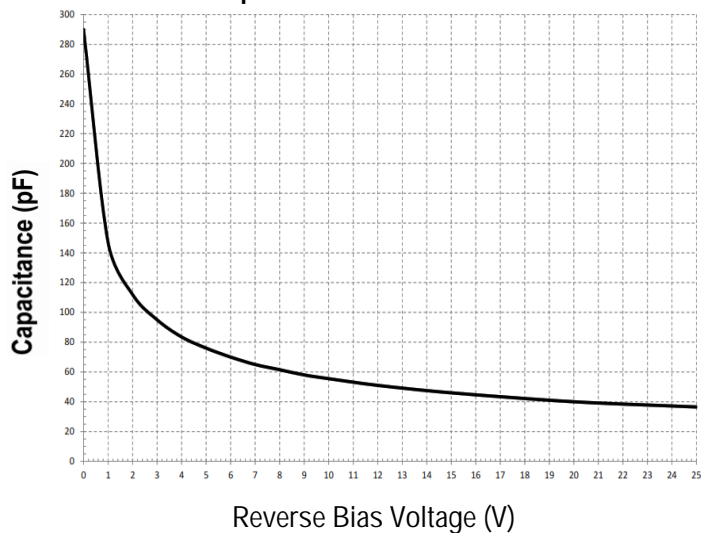
Electrical & Optical Characteristics (T_a = 22°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V _{BR}	IR=10uA	50	--	--	V
Sensitivity Range	λ	VR=0V	350	--	1100	nm
Dark Current	I _d	VR=5V	--	0.5	5	nA
NEP @ 880nm		VR=5V; RL=50Ω	--	2.3x10 ⁻¹⁴	--	W/Hz ^{1/2}
Capacitance	C _j	VR=0V; 1MHz	--	300	--	pF
Capacitance	C _j	VR=5V; 1MHz	--	76	85	pF
Responsivity	R	λ=633nm	--	.43	--	A/W
Responsivity	R	λ=950nm	--	.61	--	A/W
Forward Voltage	V _f	IF=2mA	--	--	0.6	V
Shunt Resistance	R _{sh}	VR=+/-10mV	--	300	--	MΩ

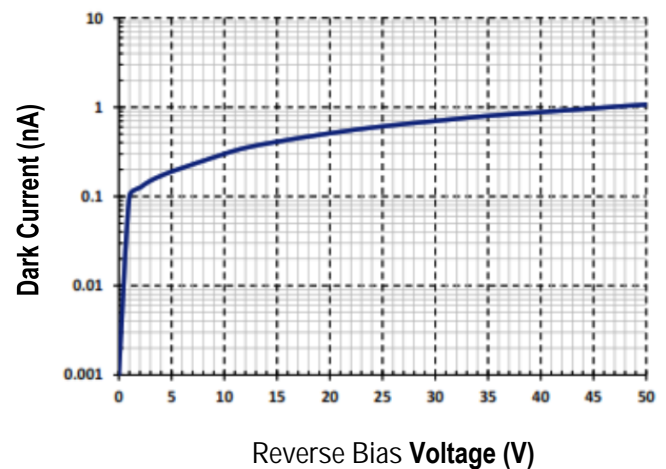
Package Dimensions



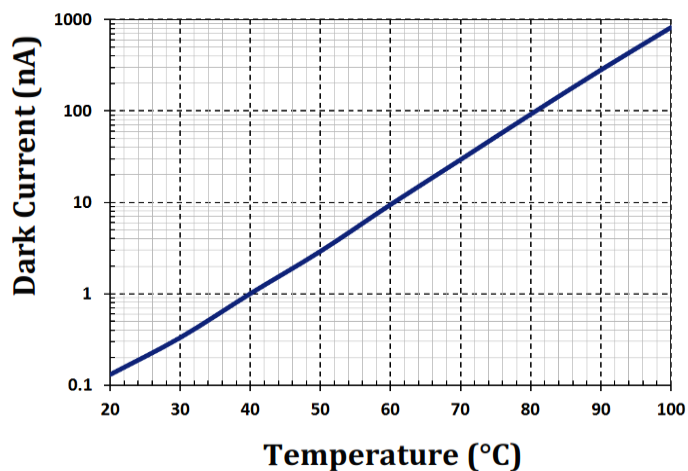
Capacitance vs Reverse Bias



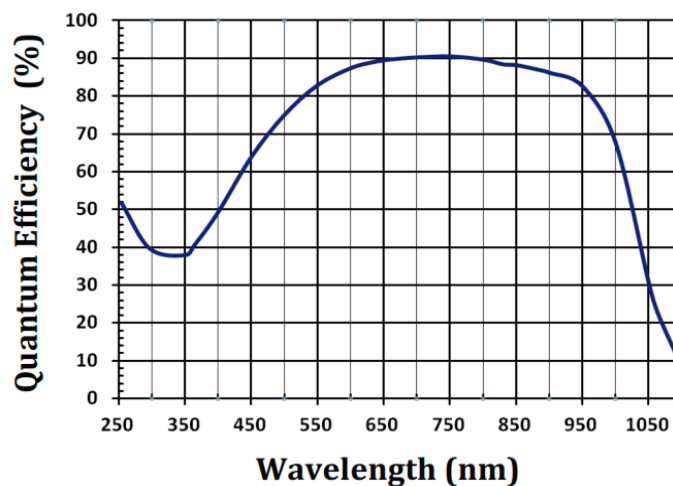
Dark Current vs Reverse Bias (23 °C)



Dark Current vs Temperature ($V_r=5V$)



Series 11 Quantum Efficiency (23°C)



Photodiode Responsivity by Series

