

## Peak Sensitivity Wavelength: 940nm

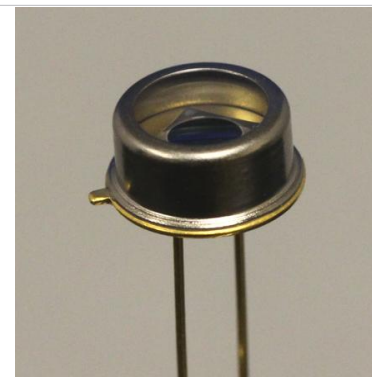
The MTPC5.0PV1-5 is a circular ( $\varnothing 2.52$ ) 5mm<sup>2</sup> active area Photodiode in a hermetic TO-5 metal can package. It is well suited for applications requiring high sensitivity (Green/Blue) as well as visible-near IR applications.

### FEATURES

- > Ultra Low Noise
- > High Shunt Resistance
- > Wide Dynamic Range
- > Blue Enhanced

### APPLICATIONS

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



## Absolute Maximum Ratings



ITEMS	SYMBOL	RATINGS	UNIT
Reverse Voltage	VR	50	V
Operating Temperature Range	Topr	-40 ~ +100	°C
Storage Temperature Range	Tstg	-55 ~ +125	°C
Lead Soldering Temperature*1	Tls	260	°C

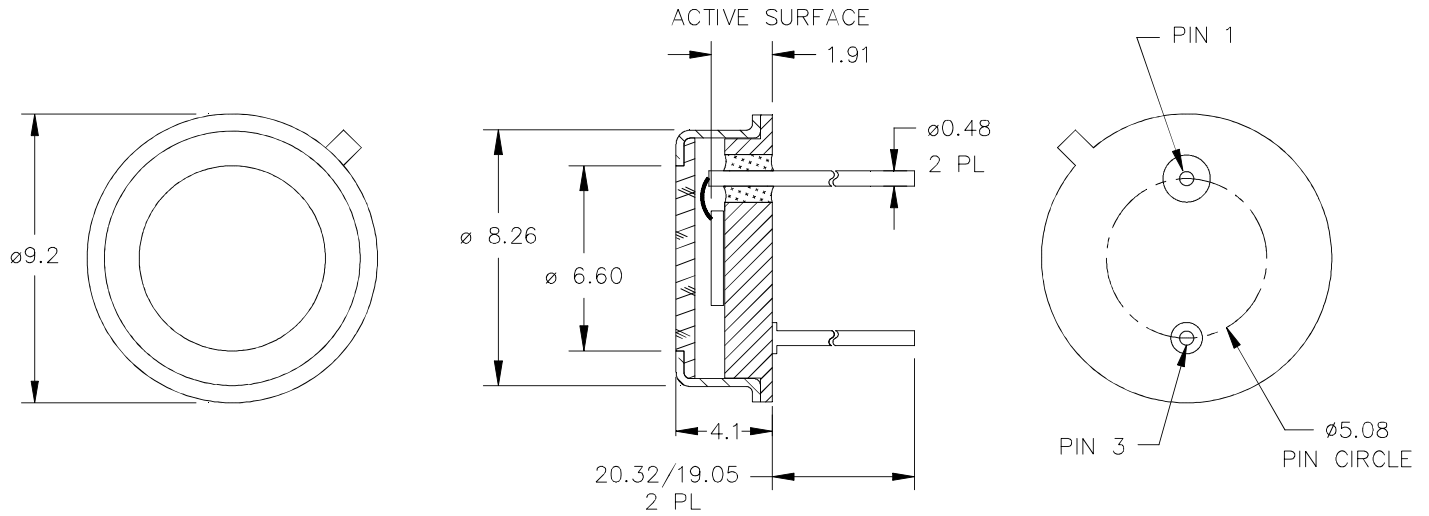
\*1: Time 5 Sec max, Position: Up to 3mm from the body.

## Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Light Current	IL	*1, *2	--	--	10.0	mA
Dark Current	ID	VR=10V	--	--	1.0	nA
Spectral Sensitivity	$\lambda$	--	--	400~1100	--	nm
Peak Sensitivity Wavelength	$\lambda_p$	--	--	940	--	nm
Responsivity	Rt	VR=0V, $\lambda=410\text{nm}$	--	0.22	--	A/W
Responsivity	Rt	VR=0V, $\lambda=940\text{nm}$	--	0.60	--	A/W
Response Time @410nm	Tr	RL=50 $\Omega$ , Vr=10V	--	2.0	--	nS
Junction Capacitance	Cj	at 1MHz, V=0V	--	65	70	pF
Junction Capacitance	Cj	at 1MHz, V=5V	--	14	18	pF
Shunt Resistance	Rs	Vr=10mV	400	600	--	m $\Omega$

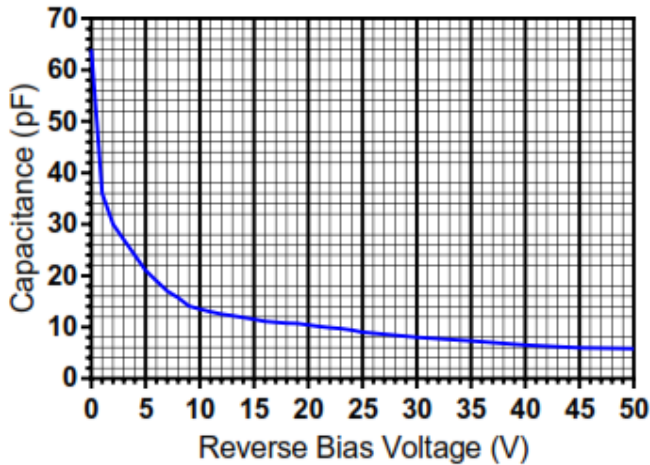
\*1: Color Temperature=2870°K Standard Tungsten Lamp, \*2: VR=10V, Ee=5mW/cm<sup>2</sup>.

TO-5 Package Dimensions (2 Pin)

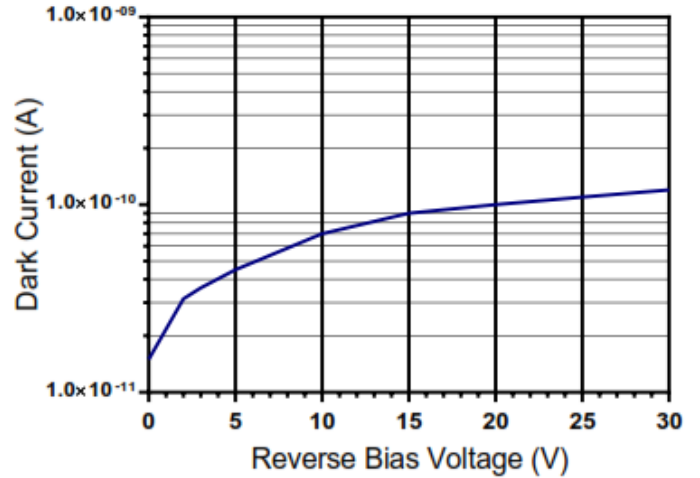


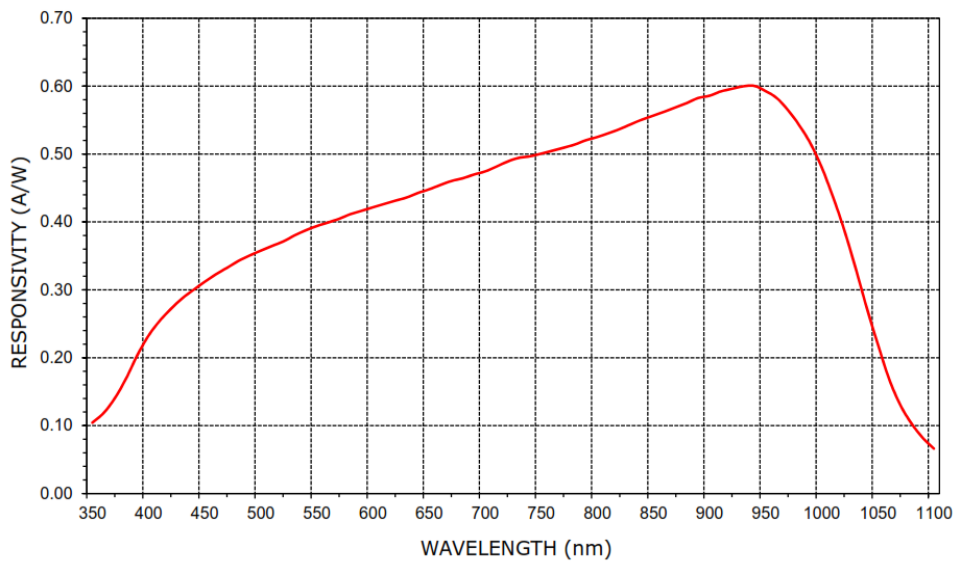
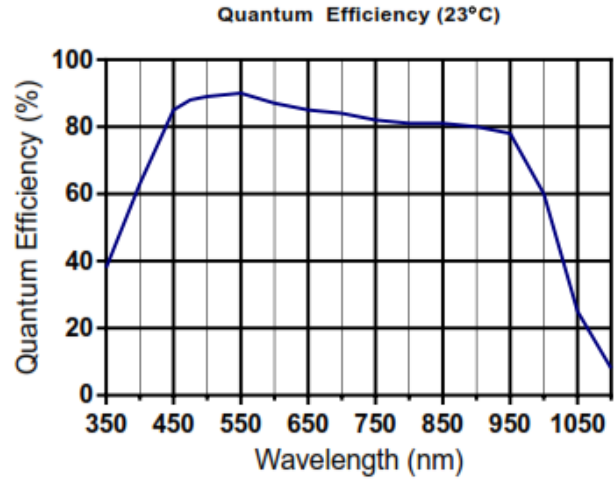
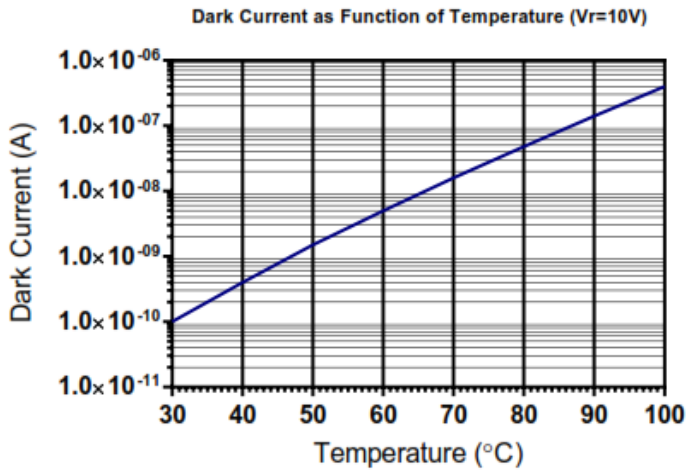
Unit: mm, Tolerance:  $\pm 0.2$

Capacitance as Function of Reverse Bias (23°C)



Dark Current as Function of Bias (23°C)





The information contained herein is subject to change without notice.

2015-01-12