

Peak Sensitivity Wavelength: 940nm

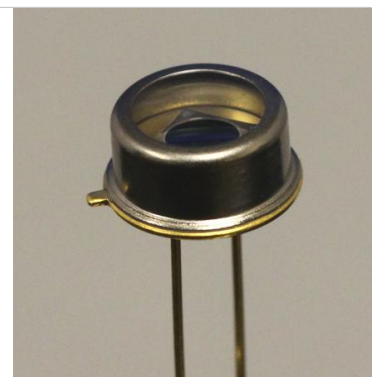
The MTPS15.0PV1-5 is a square 15mm² active area Photodiode in a hermetic TO-5 metal can package. It is well suited for applications requiring high sensitivity (Green/Blue) as well as visible-near IR applications.

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 |

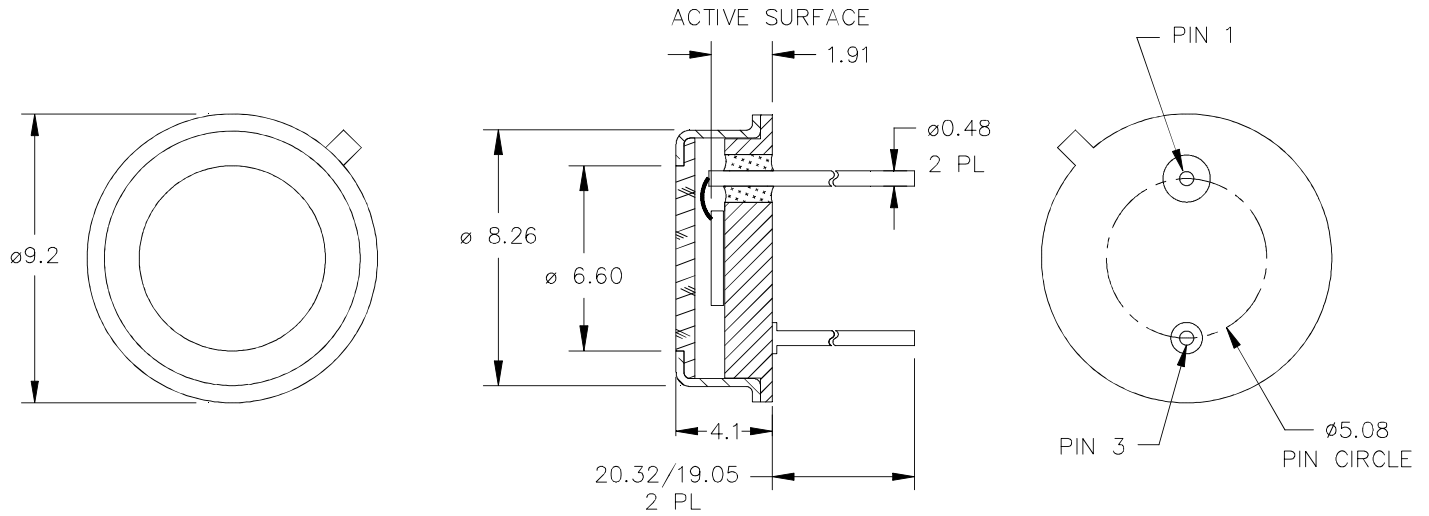
*1: Time 5 Sec max, Position: Up to 3mm from the body.

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 | λ | -- | -- | 400~1100 | -- | nm |
| Peak Sensitivity Wavelength | λp | -- | -- | 940 | -- | nm |
| Responsivity | Rt | VR=0V, λ=410nm | -- | 0.22 | -- | A/W |
| Responsivity | Rt | VR=0V, λ=940nm | -- | 0.60 | -- | A/W |
| Response Time @410nm | Tr | RL=50Ω, Vr=10V | -- | 70 | -- | nS |
| Junction Capacitance | Cj | at 1MHz, V=0V | -- | 130 | 190 | pF |
| Junction Capacitance | Cj | at 1MHz, V=5V | -- | 50 | 60 | pF |
| Shunt Resistance | Rs | Vr=10mV | 150 | 200 | -- | mΩ |

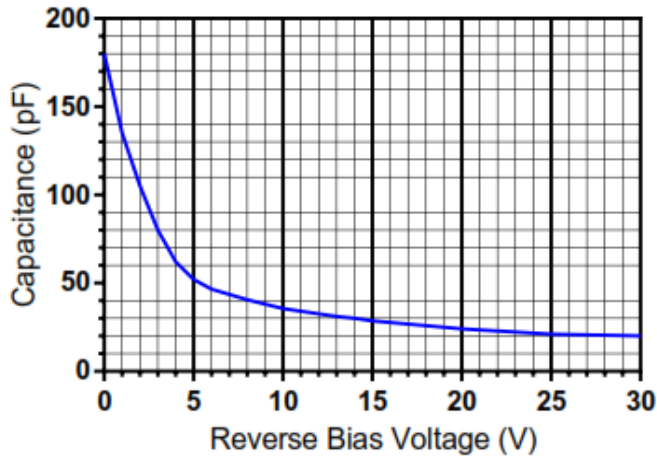
*1: Color Temperature=2870°K Standard Tungsten Lamp, *2: VR=10V, Ee=5mW/cm².

TO-5 Package Dimensions (2 Pin)

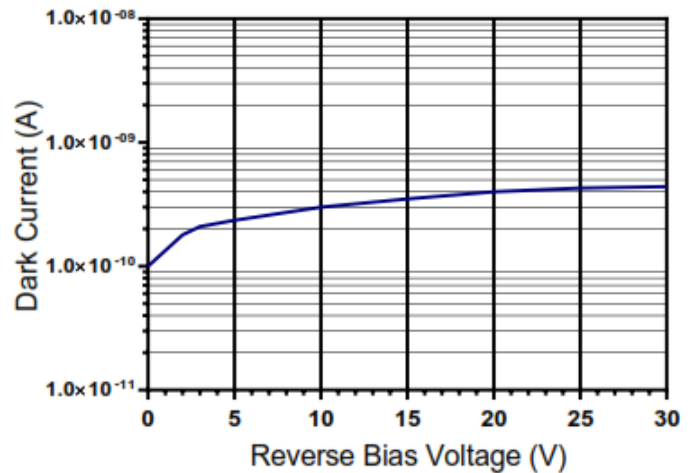


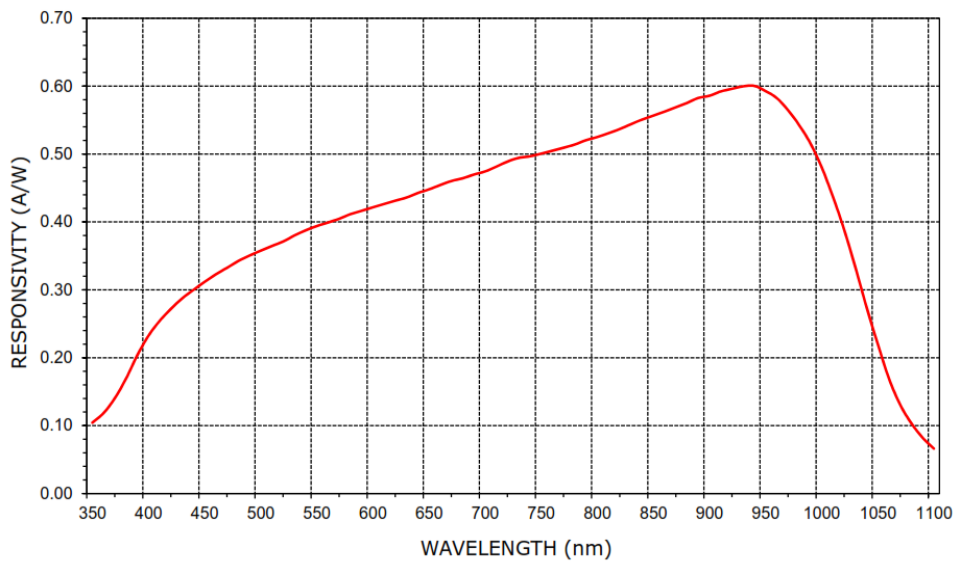
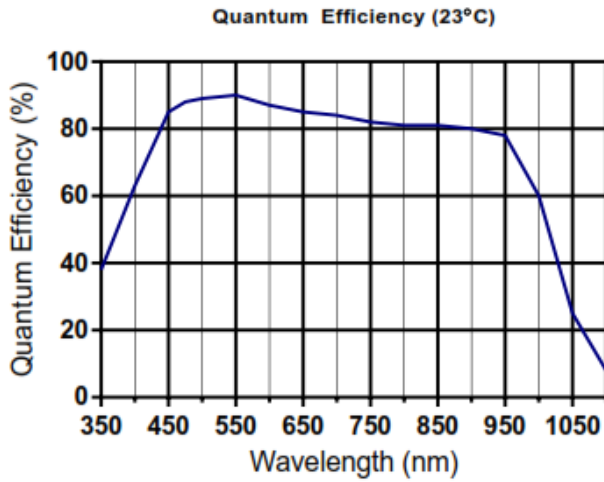
Unit: mm, Tolerance: ± 0.2

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