

Peak Sensitivity Wavelength: 940nm

The MTD3910D3 is a photo diode in a water-clear 3mm plastic molded package. It is well suited for high reliability and high sensitivity applications. Custom package solutions and sorting are available.

FEATURES

- > High Light Current
- > Active Area: 1.21mm²
- > Low Dark Current
- > Wide Angular Response

APPLICATIONS

- > Optical Switches / Sensors
- > Edge Sensing
- > Fiber Optical Communications



Absolute Maximum Ratings (Ta=25°C)



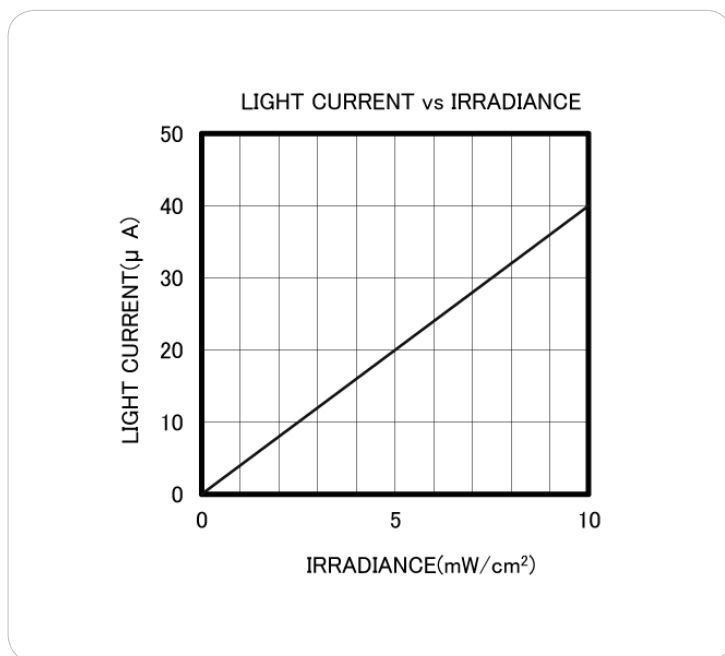
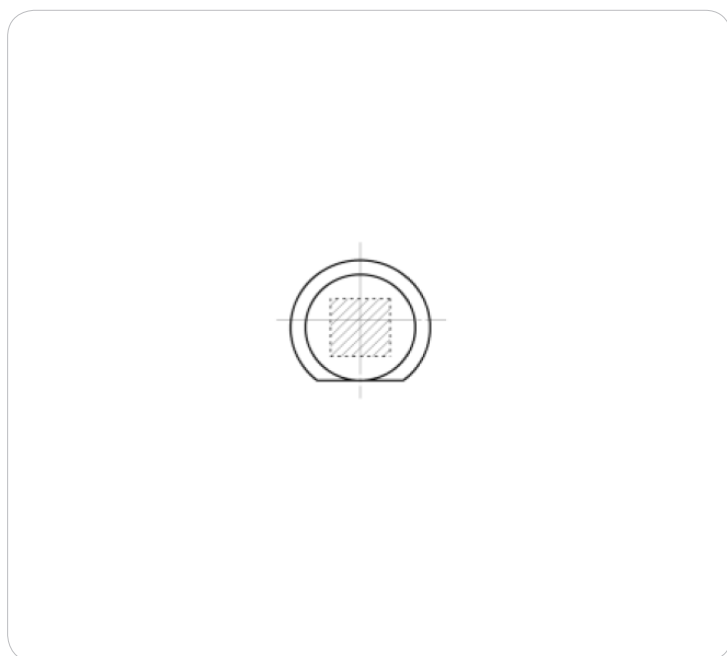
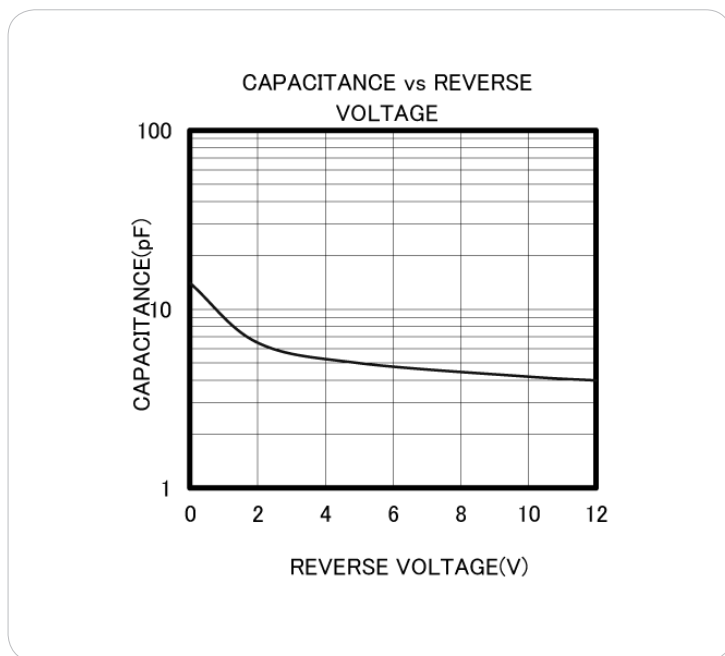
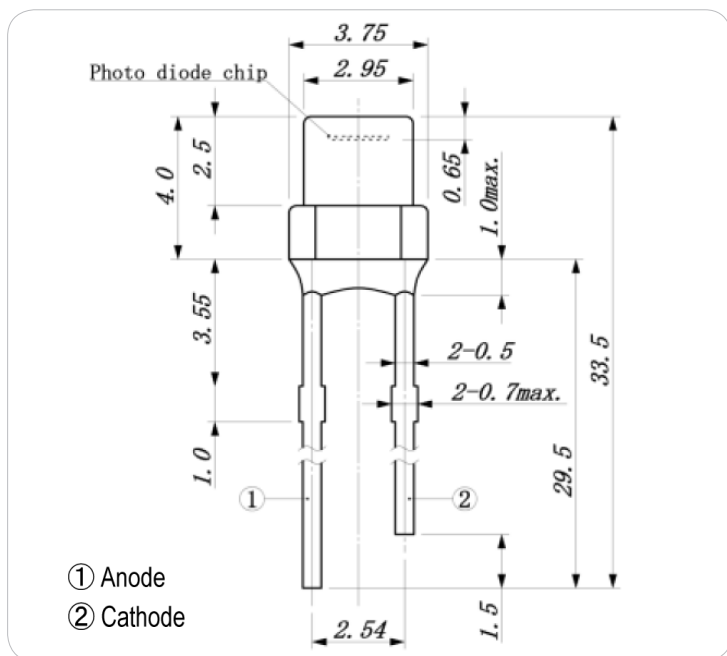
| ITEMS | SYMBOL | RATINGS | UNIT |
|------------------------------|--------|------------|------|
| Reverse Voltage | VR | 20 | V |
| Power Dissipation | PD | 50 | mW |
| Operating Temperature Range | Topr | -20 ~ +85 | °C |
| Storage Temperature Range | Tstg | -30 ~ +100 | °C |
| Junction Temperature | Tj | 100 | °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)

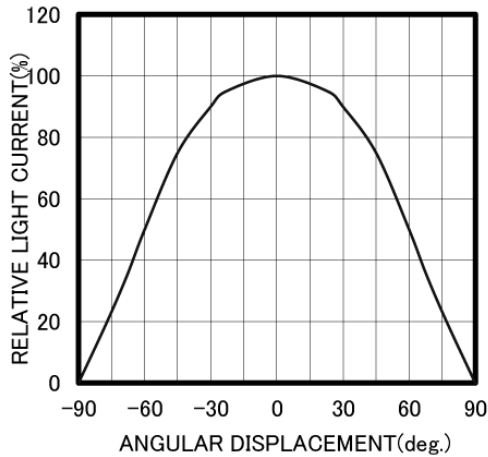
| ITEMS | SYMBOL | CONDITIONS | MIN | TYP | MAX | UNIT |
|-----------------------------|--------|-----------------|-----|------|------|------|
| Light Current | IL | *1, *2 | 15 | 20 | -- | μA |
| Dark Current | ID | VR=10V | -- | -- | 10 | nA |
| Spectral Sensitivity | λ | -- | 400 | -- | 1060 | nm |
| Peak Sensitivity Wavelength | λp | -- | -- | 940 | -- | nm |
| Responsivity | S | λ=660nm | -- | 0.45 | -- | A/W |
| Junction Capacitance | Cj | VR=2.5V, f=1MHz | -- | 6 | 12 | pF |

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

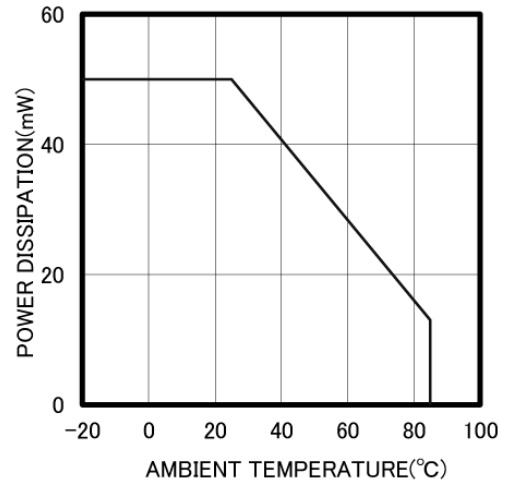


Unit: mm, Tolerance: ±0.2

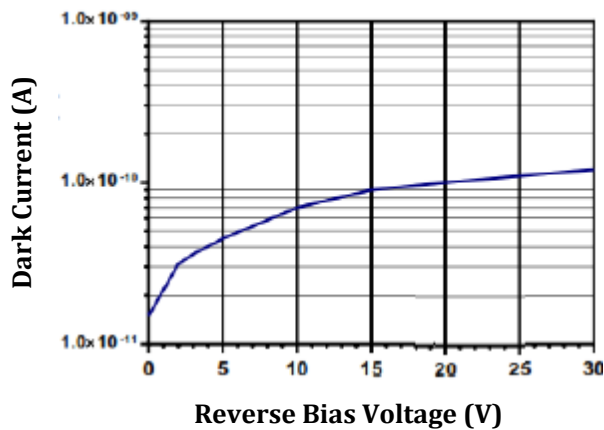
ANGULAR DISPLACEMENT



THERMAL DERATING CURVE



Dark Current vs Reverse Bias (23°C)



Unit: mm, Tolerance: ±0.2