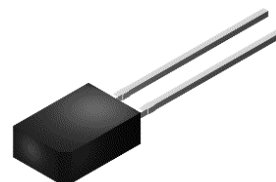


## Rectangular Silicon Photodiode

### OD T647

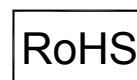
#### Features

- High radiant sensitive
- Low junction capacitance
- Wide radiant sensitive area
- Fast respond speed.
- Daylight filter
- Lens in black color



#### Applications

- Industrial electronics
- Measurement
- Control circuit
- Interrupter



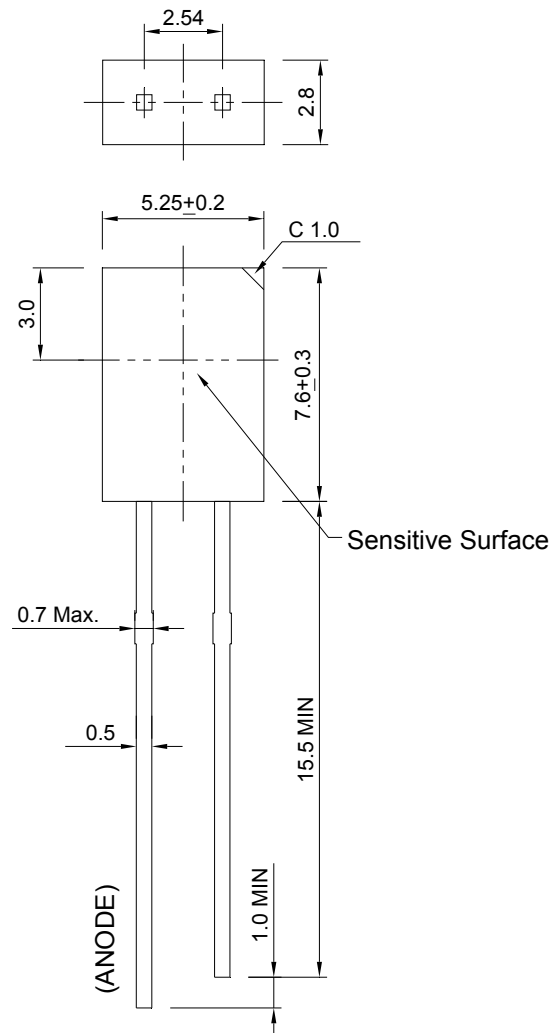
#### Absolute Maximum Rating at Ta=25°C, unless otherwise specified

| Parameter                   | Symbol    | Value             | Unit |
|-----------------------------|-----------|-------------------|------|
| Reverse Voltage             | $V_R$     | 32                | V    |
| Power Dissipation           | $P_v$     | 150               | mW   |
| Operating Temperature Range | $T_{amb}$ | -30 to + 85       | °C   |
| Storage Temperature         | $T_{stg}$ | -40 to + 85       | °C   |
| Soldering Temperature       | $T_{sd}$  | 260+/-5 for 5 sec | °C   |

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of LED life- span and may cause LED to fail.

## Package Dimension:

unit: mm



### Notes:

1. All dimensions are millimeters.
2. Tolerance is  $\pm 0.2\text{mm}$  unless otherwise specified.
3. Specifications are subject to change without notice.

**Optical Characteristics at Ta=25°C, unless otherwise specified**

| Parameter                      | Test condition                                    | Symbol | Min | Typ. | Max  | Unit |
|--------------------------------|---------------------------------------------------|--------|-----|------|------|------|
| Open Circuit Voltage           | Ee = 5mW/cm <sup>2</sup><br>λ p= 940nm            | Voc    | --- | 0.4  | ---  | V    |
| Short Circuit Current          |                                                   | Isc    | --- | 80   | ---  | μA   |
| Dark Current                   | Ee = 0mW/cm <sup>2</sup><br>VR = 10V              | ID     | --- | 5    | 30   | nA   |
| Reverse Light Current          | Ee = 5mW/cm <sup>2</sup><br>λ p= 940nm<br>VR = 5V | IL     | --- | 80   | ---  | μA   |
| Total Capacitance              | Ee = 0mW/cm <sup>2</sup><br>VR = 3V<br>f=1MHz     | Ct     | --- | 25   | ---  | pF   |
| Reverse Breakdown Voltage      | Ee = 0mW/cm <sup>2</sup><br>IR=100 μA             | BVR    | 32  | 170  | ---  | V    |
| Range of Spectral Bandwidth    | ---                                               | λ 0.5  | 840 | ---  | 1200 | nm   |
| Wavelength of Peak Sensitivity | ---                                               | λ p    | --- | 980  | ---  | nm   |
| Rise Time                      | VR=10V,<br>RL=1000Ω                               | tr     | --- | 50   | ---  | nS   |
| Fall Time                      |                                                   | tf     | --- | 50   | ---  |      |

## Optical Characteristics Curves

