

UV-A Sensor

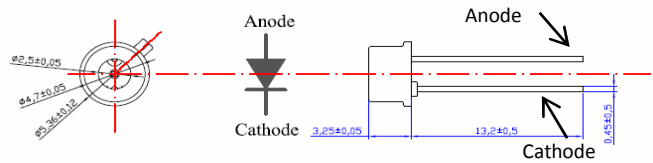
YL-Φ5TO46F-UVAS(B)

- Features**
- Indium Gallium Nitride Based Material
 - Schottky-type Photodiode
 - Photovoltaic Mode Operation
 - High Responsivity & Low Dark Current



- Applications**
- Full UV Band Monitoring
 - UV-A Lamp Monitoring
 - Sterilization Lamp Monitoring

Outline Diagrams and Dimensions



Absolute Maximum Ratings

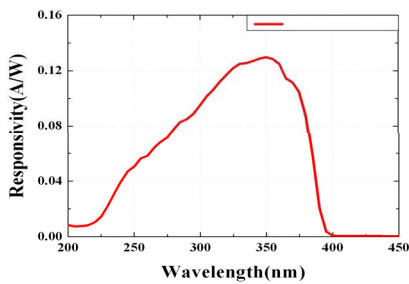
| Parameter | Symbol | Min. | Max. | Unit | Remark |
|----------------------------|----------------------|-------|------|-------------------|----------------|
| Storage Temperature | T _{st} | -40 | 90 | °C | |
| Operating Temperature | T _{op} | -30 | 85 | °C | |
| Reverse Voltage | V _{r, max.} | | 2 | V | |
| Forward Current | I _{f, max.} | | 1 | mA | |
| Optical Source Power Range | P _{opt} | 0.01μ | 100m | W/cm ² | UVA Lamp |
| Soldering Temperature | T _{sol} | | 260 | °C | within 10 sec. |

※Notice: apply to us in the case that Optical Source Power is over 100mW/cm².

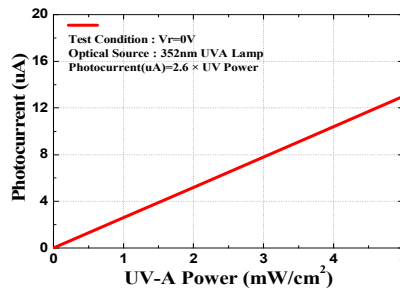
Characteristics (at 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--------------------------|-----------------|------|-------|------|-----------------|----------------------------------|
| Dark Current | I _d | | | 20 | nA | V _r = 0.1 V |
| Photo Current | I _{ph} | 2.34 | 2.6 | 2.86 | μA | UVA Lamp, 1mW/cm ² |
| Temperature Coefficient | I _{tc} | | 0.1 | | %/°C | UVA Lamp |
| Responsivity | R | | 0.13 | | A/W | λ = 350 nm, V _r = 0 V |
| Spectral Detection Range | λ | 230 | | 395 | nm | 10% of R |
| Active area | | | 1.536 | | mm ² | |

Responsivity Curve



Photocurrent along UV Power



Caution

ESD can damage the device hence please avoid ESD. Insulate the cap of TO-CAN or it can cause malfunction of the device.