

# UV-A Sensor

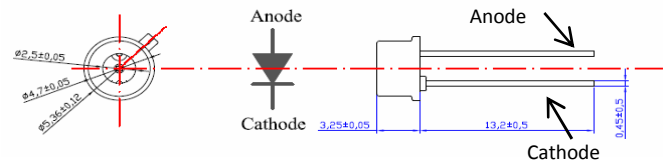
## YL-Φ5TO46F-UVAS(C1)

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



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

**Outline Diagrams and Dimensions**



**Absolute Maximum Ratings**

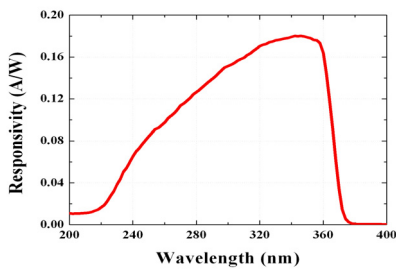
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	$T_{st}$	-40	90	°C	
Operating Temperature	$T_{op}$	-30	85	°C	
Reverse Voltage	$V_{r, max.}$		5	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	$P_{opt}$	0.01μ	100m	W/cm <sup>2</sup>	UVA Lamp
Soldering Temperature	$T_{sol}$		260	°C	within 10 sec.

※Notice: apply to us in the case that Optical Source Power is over 100mW/cm<sup>2</sup>

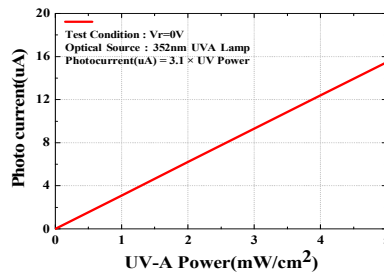
**Characteristics (at 25°C)**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	$I_d$			20	nA	$V_r = 0.1$ V
Photo Current	$I_{ph}$	2.8	3.1	3.4	μA	UVA Lamp, 1mW/cm <sup>2</sup>
Temperature Coefficient	$I_{tc}$		0.05		%/°C	UVA Lamp
Responsivity	R		0.18		A/W	$\lambda = 350$ nm, $V_r = 0$ V
Spectral Detection Range	$\lambda$	220		370	nm	10% of R
Active area			1.536		mm <sup>2</sup>	

**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.