

UV-A Sensor

YL-Φ9TO39F-UVAS(A)

Features

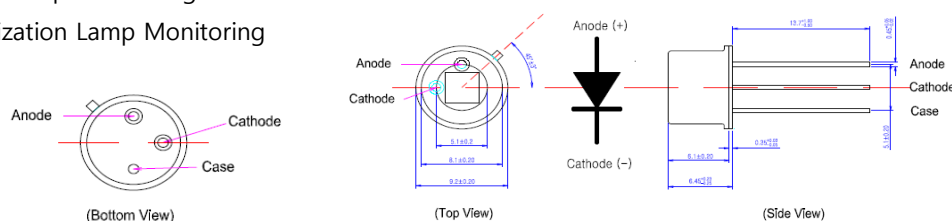
- Indium Gallium Nitride Based Material
- Schottky-type Photodiode
- Photovoltaic Mode Operation
- High Responsivity & Low Dark Current



Applications

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

Outline Diagrams and Dimensions



Absolute Maximum Ratings

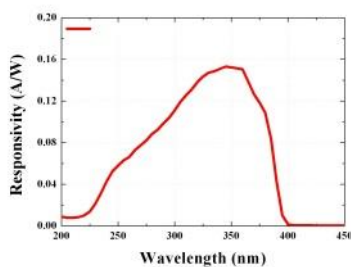
Parameter	Symbol	Min.	Max.	Unit	Remark
Storage Temperature	T_{st}	-40	90	°C	
Operating Temperature	T_{op}	-30	85	°C	
Reverse Voltage	$V_{r, max.}$		2	V	
Forward Current	$I_{f, max.}$		1	mA	
Optical Source Power Range	P_{opt}	0.001μ	100m	W/cm ²	UVA Lamp
Soldering Temperature	T_{sol}		260	°C	within 10 sec.

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

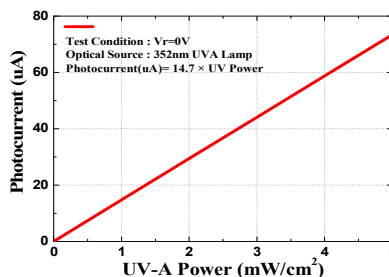
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			90	nA	$V_r = 0.1 V$
Photo Current	I_{ph}	13.2	14.7	16.1	μA	UVA Lamp, 1mW/cm ²
Temperature Coefficient	I_{tc}		0.1		%/°C	UVA Lamp
Responsivity	R		0.15		A/W	$\lambda = 352 nm, V_r = 0 V$
Spectral Detection Range	λ	230		395	nm	10% of R
Active area			6.894		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.