

# UV-V Sensor Module

## GUVV-T20GH



### Description

- UV sensors of Genicom make the photocurrent under UV light but the level of photocurrent is very low. This small signal is not easy to be checked by normal current measure equipments and it is not to fit input signal of analog-to-digital converter(ADC).

UV sensor module is amplifying the photocurrent to voltage signal and you can choose the output voltage range of UV sensor module by gain control.

### Features

- Adaptive single supply voltage range to voltage of ADC

### Applications

- Sterilization (UV-V) lamp monitoring
- UV Index Monitoring



Fig. 1 Overview

### Absolute Maximum Ratings

Exceeding these limits may decrease lifetime or destroy the board or parts of it immediately.

Parameter	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
Storage Temperature	T <sub>st</sub>	-40		90	°C	
Operating Temperature	T <sub>op</sub>	-30		85	°C	
Supply Voltage	V <sub>cc</sub>			5.5	V	
Soldering Temperature	T <sub>sol</sub>			260	°C	
Soldering Time	T <sub>sol.t</sub>			10	sec.	

### Electrical Characteristic (at 25 °C)

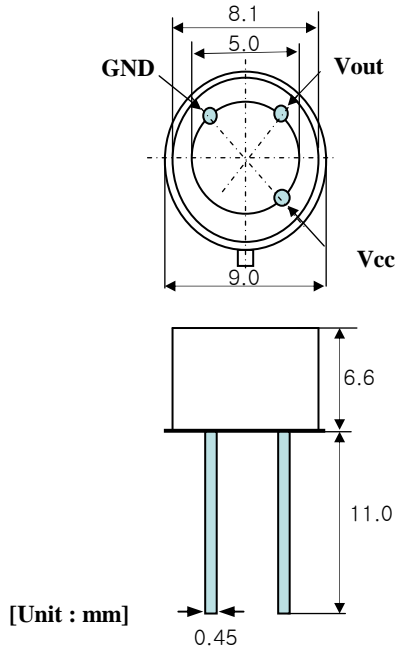
Parameter	Symbol	Value			Unit	Remark
		Min.	Typ.	Max.		
Spectral Response	$\lambda$	230		390	nm	
Supply Voltage	V <sub>cc</sub>	1.8	-	5.5	V	DC
Supply Current	I <sub>Q</sub>	30	50	70	$\mu$ A	
Transimpedance Gain	G		$10^7$		A/V	
Input Current	I <sub>in</sub>	1			pA	
Output Voltage	V <sub>out</sub>			V <sub>cc</sub> -0.3	V	
Output Offset Voltage	V <sub>off</sub>			5	mV	
Response Time	T		3		ms	

# UV-V Sensor Module

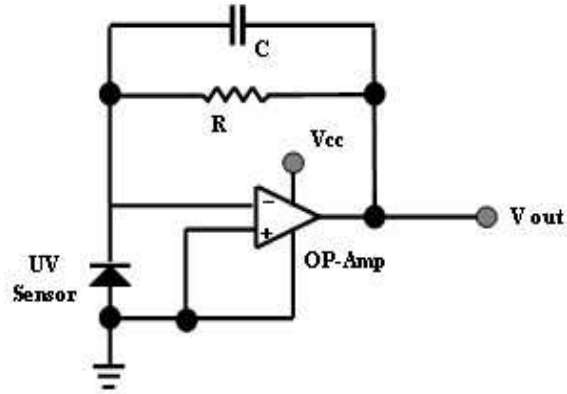
## GUVV-T20GH



### Physical Dimensions

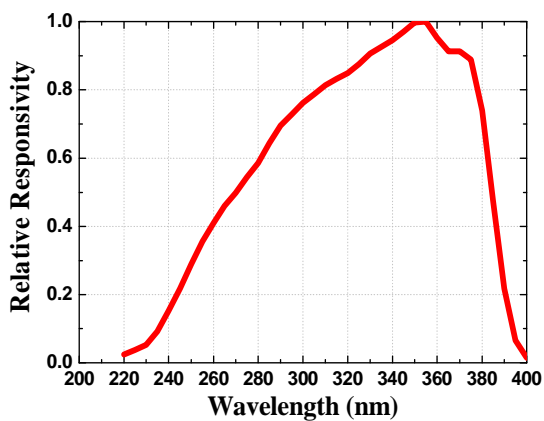


### Application Circuit

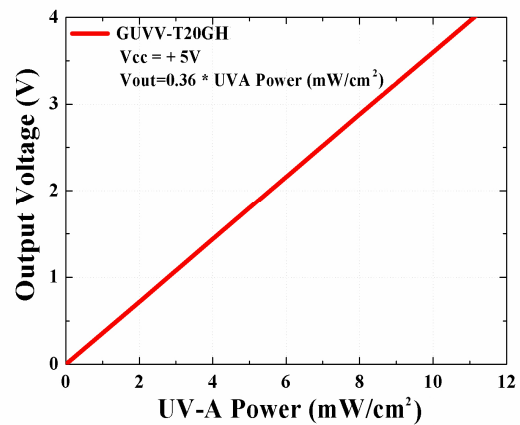


### Optical Characteristics of GUVV-T20GH

#### Spectral Responsivity



#### Sterilization Lamp Monitoring



### Notice

- Please protect the sensitive devices on the board against electrostatic discharge(ESD) by using anti-electric wrist band, ground connection and so on. Without any ESD protective action, the warranty is voided.