

UV / Visible Sensor

GVGR-T11GD (Ver.1)



Features

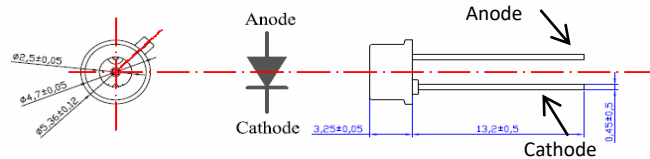
TO-46 with quartz glass
Indium Gallium Nitride Based Material
PN-type Photodiode
Photovoltaic Mode Operation
High Responsivity & Low Dark Current



Applications

UV LED Monitoring (385, 405nm, etc.)
Blue LED Monitoring
UVA Lamp Monitoring
UV Curing

Outline Diagrams and Dimensions



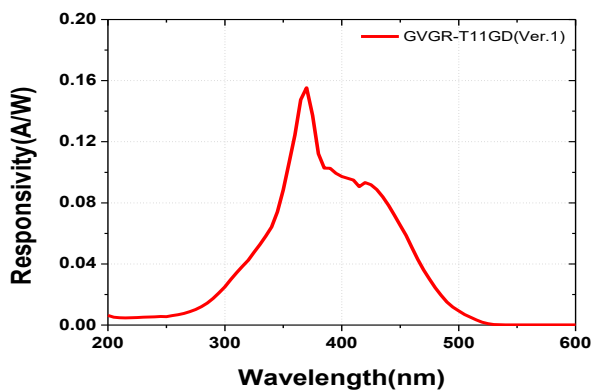
Absolute Maximum Ratings

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	
Soldering Temperature	T_{sol}		260	°C	within 10 sec.

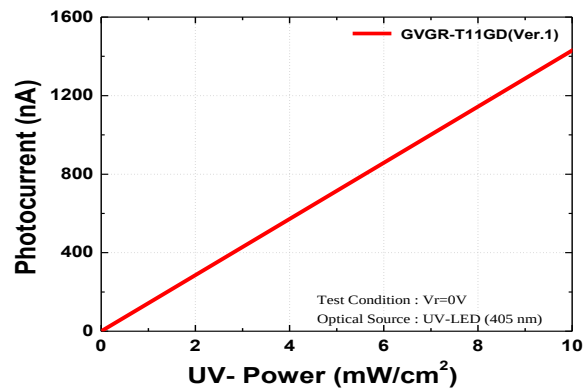
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			1	nA	$V_r = 0.1 \text{ V}$
Photo Current	I_{ph}		143		nA	LED (405nm), 1 mW/cm^2
Temperature Coefficient	T_c		-0.08		%/°C	
Responsivity	R		0.097		A/W	$\lambda = 405 \text{ nm}$, $V_r = 0 \text{ V}$
Spectral Detection Range	λ	290		500	nm	10% of R

Responsivity Curve



Photocurrent along LED 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.

No.	REV.	History	날짜
1	1.0	GVGR-T11GD Discontinue => GVGR-T11GD(Ver.1) Chip characteristics change (Responsivity, Photocurrent Improvement) => Photocurrent 1mW/cm² @405nm UV LED : GVGR-T11GD 46nA=>GVGR-T11GD(ver.1) : 143nA	2025.01.02