

UV / Visible Sensor

GVGR-S11SD(ver.3)



Features

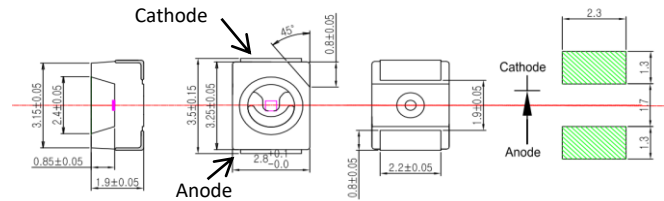
SMD3528 with Si-encapsulant
Indium Gallium Nitride Based Material
PN-type Photodiode
Photovoltaic Mode Operation
High Responsivity & Low Dark Current



Applications

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

Outline Diagrams and Dimensions



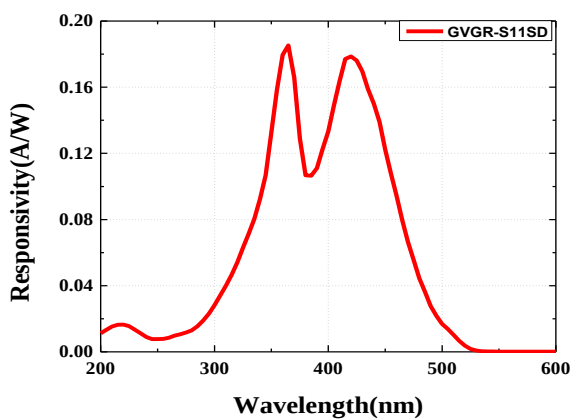
Absolute Maximum Ratings

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.

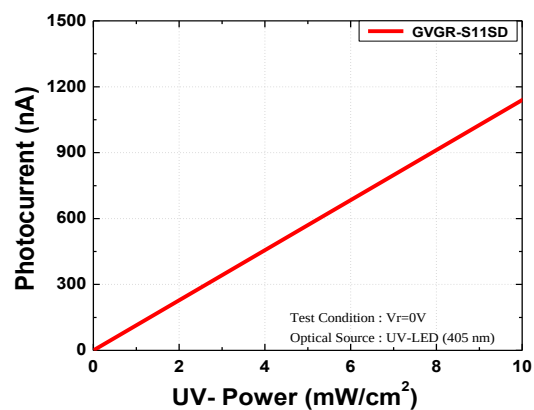
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			1	nA	$V_r = 0.1 \text{ V}$
Photo Current	I_{ph}		114		nA	LED (405nm), 1 mW/cm^2
Responsivity	R		0.14		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.

No.	REV.	History	날짜
1	1.0	PKG Black color , GVGR-S11SD	2014.01.14
2	1.1	Change of PKG Color (Black => White) "Chip characteristics change (Photocurrent improvement) =>1mW/cm ² @405nm UV LED : 44nA=>88nA	2022.03.22
3	1.2	GVGR-S11SD Discontinue => GVGR-S11D(Ver.3) Chip characteristics change (Responsivity, Photocurrent Improvement) => Photocurrent 1mW/cm ² @405nm UV LED : GVGR-S11SD 88nA=>GVGR-S11SD(ver.3) : 114nA	2023.06.30