

UV / Visible Sensor

GVBL-S12SD(ver.1)



Features

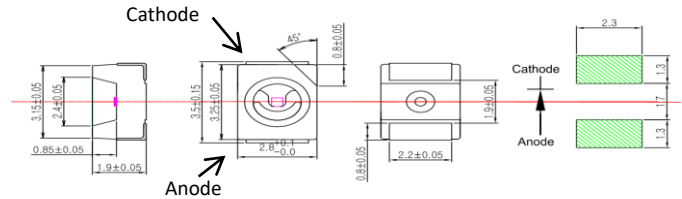
SMD3528 with Si-encapsulant
Indium Gallium Nitride Based Material
PN-type Photodiode
Photovoltaic Mode Operation
High Responsivity & Low Dark Current



Applications

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

Outline Diagrams and Dimensions



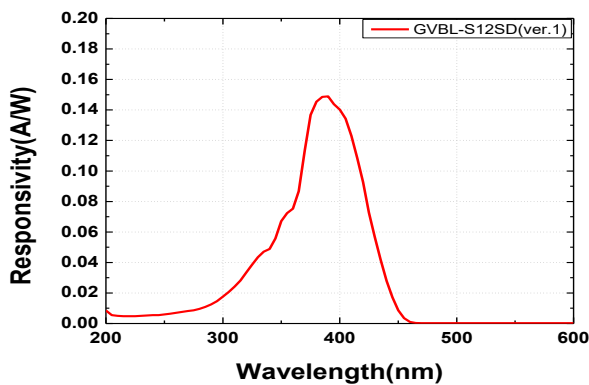
Absolute Maximum Ratings

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.

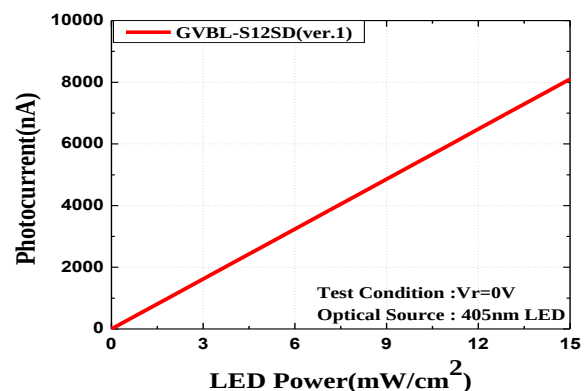
Characteristics (at 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Dark Current	I_d			1	nA	$V_r = 0.1$ V
Photo Current	I_{ph}		140		nA	UVA (352nm), 1mW/cm ²
			540		nA	405nm LED, 1mW/cm ²
Responsivity	R		0.13		A/W	$\lambda = 405$ nm, $V_r = 0$ V
Spectral Detection Range	λ	295		445	nm	10% of R

Responsivity Curve



Photocurrent along UV Power



Caution

ESD can damage the device hence please avoid ESD.

No.	REV.	History	날짜
1	1	GVBL-S12SD Discontinue => GVBL-S12D(Ver.1) Chip characteristics change (Responsivity, Photocurrent,detection range) => Photocurrent 1mW/cm² @405nm UV LED : GVBL-S12SD 790nA=>GVBL-S12SD(ver.1): 540nA Detection range : 345~450nm=>295~445nm	2026.04.01