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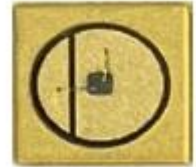
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AUSTRIA



GUVA-S12GDC

- GaNSchottky-type UV Broadband Photodiode
- 230 – 370 nm
- Ceramic SMD Package



Description

GUVA-S12GDC is GaN based Schottky-type UV broadband photodiode in ceramic SMD package with good intrinsic blindness. It is intended for photovoltaic mode operation, and is primarily used for UV index monitoring and UV-A lamp monitoring.

Maximum Ratings*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Saturation Power (UVA)	P_{SAT}		100	mW/cm ²
Reverse Voltage	U_R		5	V
Forward Current	I_F		1	mA
Dark Current ($V_R = 0.1$ V)	I_D		1	nA
Operating Temperature	T_{OP}	- 30	+ 85	°C
Storage Temperature	T_{ST}	- 40	+ 90	°C
Lead Solder Temperature ($t_{max. 3s}$)	T_{SLD}		+ 260	°C

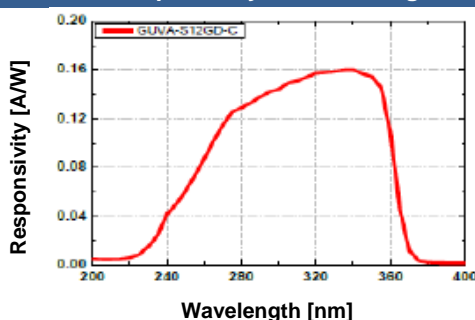
*Operating close to or exceeding these parameters may damage the device

Electro-Optical Characteristics ($T_{CASE} = 25^\circ\text{C}$)

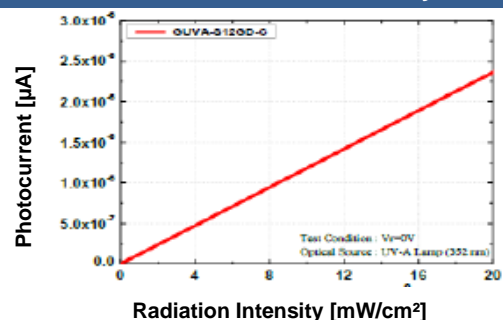
Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Spectral Detection Range	λ_D	10% of R	230		370	nm
Active Area	A			0.076		mm ²
Photo Current	I_P	UVA lamp, 1 mW/cm ²		118		nA
Temperature Coefficient	T	UVA lamp		0.08		%/°C
Responsivity	R	$\lambda = 350$ nm, $V_R = 0$ V		0.16		A/W
Viewing Angle	θ			120		degree

Typical Performance Curves

Responsivity vs. Wavelength



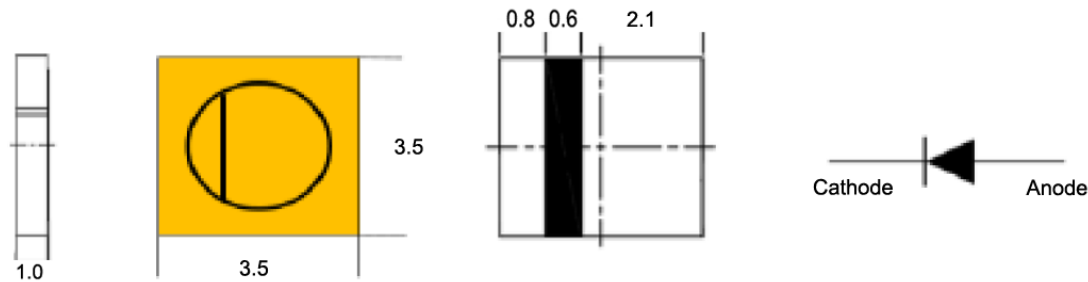
Photocurrent vs. Radiation Intensity @ 352 nm





Outline Dimensions

SMD

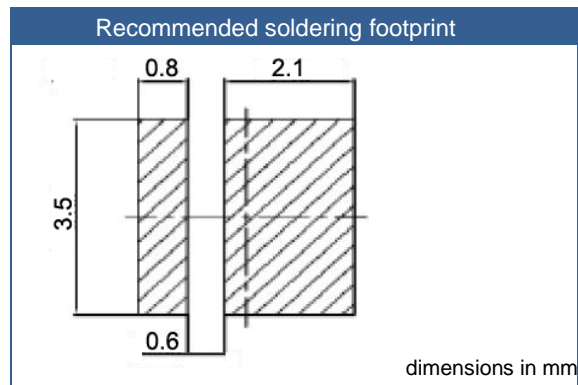
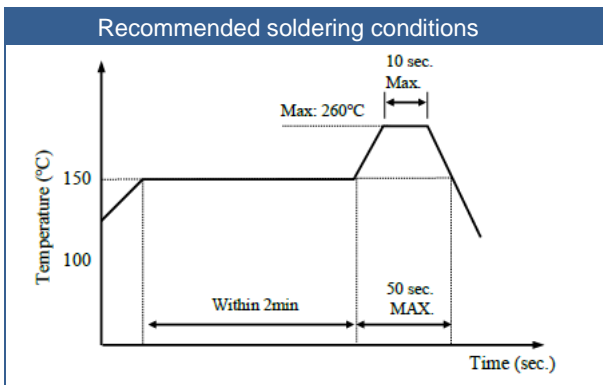


all dimensions in mm

General Notes

Reflow Soldering Characteristics

- Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not apply current to the LED until it has cooled down to room temperature after soldering



- Maximum Temperature: 260 °C
- Maximum Time: 10

