LASER COMPONENTS®

Advanced Photonix
A Division of OSI Optoelectronics

SD100-12-22-021 2.5mm Dia. Blue-Enhanced Photodiode

RoHS COMPLIANT

FEATURES

- Low Noise
- Blue-Enhanced
- High Shunt Resistance
- High Response

DESCRIPTION

The **SD100-12-22-021** is a 2.5mm diameter blue-enhanced silicon PIN photodiode, packaged in a hermetic TO-5 metal package.

APPLICATIONS

- Instrumentation
- Industrial
- Medical

> Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD100-12-22-021	350 to 1100	75	-40 to +100	-55 to +125	TO-5

> Typical Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	**Test Conditions**	**Symbol**	**Min**	**Typical**	**Max**	**Unit**
Dark Current	V_R = 50V	I_D	-	1.6	6.4	nA
Junction Capacitance	V_R = 0V, *f* = 1 MHz	C_J	300	-	-	pF
	V_R = 50V, *f* = 1 MHz		-	87	-	
Spectral Application Range	Spot Scan	λ	350	26	1100	nm
Responsivity	λ=450nm, V_R =0V	R	0.20	-	-	A/W
Breakdown Voltage	I = 10 µA	V_{BD}	25	-	-	V
Noise Equivalent Power	V_R = 5V@ λ=950nm	NEP	-	$4.2x10^{-14}$	-	W/ √ HZ
Response Time**	RL = 50Ω, V_R =0V	T_R	-	190	-	nS
	RL = 50Ω, V_R =50V		-	13	-	

**Response time of 10% to 90% is specified at 660nm wavelength light.

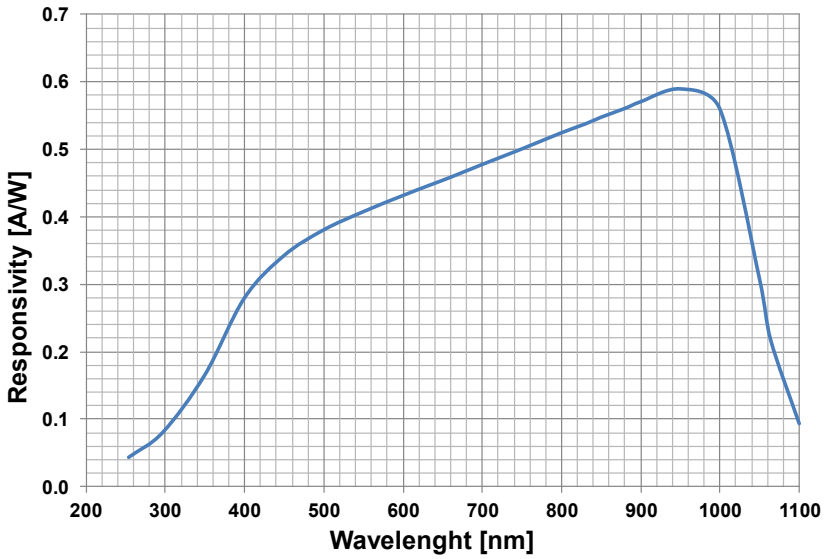
DS SD100-12-22-021 Rev. A

/ Germany and Other Countries LASER COMPONENTS Germany GmbH Tel +49 8142 2864 - 0 info@lasercomponents.com www.lasercomponents.com
/ France LASER COMPONENTS S.A.S. Tel +33 1 39 59 52 25 info@lasercomponents.fr www.lasercomponents.fr
/ United Kingdom LASER COMPONENTS (UK) Ltd. Tel +44 1245 491 499 info@lasercomponents.co.uk www.lasercomponents.co.uk

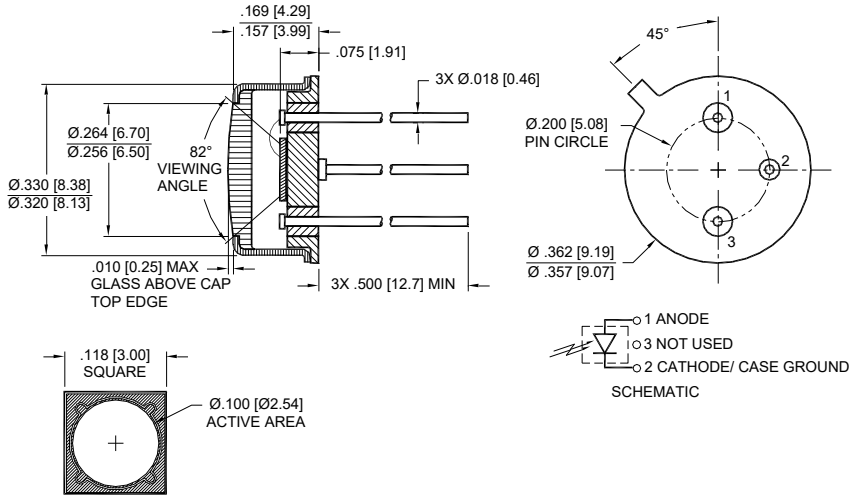
beyond borders

SD100-12-22-021 *Blue-Enhanced Silicon Photodiode*

> Typical Spectral Response



> Mechanical Specifications
Units are in inches [mm]



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MATERIALS SAFETY

This product is free of conflict minerals and meets REACH compliance. Please see website for reports.

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