



Advanced Photonix

A Division of OSI Optoelectronics

SD066-24-21-011
Bi-Cell Silicon Photodiode

FEATURES

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


DESCRIPTION

The **SD 066-24-21-011** is a red enhanced Bi-Cell silicon photodiode used for nulling, centering, or measuring small positional changes packaged in a hermetic TO-46 metal package.

APPLICATIONS

- Emitter Alignment
- Position Sensing
- Medical
- Industrial

> Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD066-24-21-011	350 to 1100	50	-40 to +125	-55 to +150	TO-46

> Electrical and Optical Characteristics
Typical Characteristics (T=23°C unless specified)

Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Dark Current	$V_R = 5V$	I_D	-	0.2	1.0	nA
Shunt Resistance	$V_R = 10\text{ mV}$	R_{SH}	550	-	-	MΩ
Junction Capacitance	$V_R = 0V, f = 1\text{ MHz}$	C_J	-	15	-	pF
	$V_R = 10V, f = 1\text{ MHz}$		-	3	-	
Spectral Application Range	Spot Scan	λ	350	-	1100	nm
Responsivity	$\lambda = 633\text{ nm}, V_R = 0V$	R	.32	.41	-	A/W
	$\lambda = 900\text{ nm}, V_R = 0V$.50	.65	-	
Breakdown Voltage	$I = 10\text{ }\mu A$	V_{BD}	-	50	-	V
Noise Equivalent Power	$V_R = 5V @ \lambda = 950\text{ nm}$	NEP	-	1.2×10^{-14}	-	W/√Hz
Response Time**	$R_L = 50\Omega, V_R = 0V$	T_R	-	100	-	nS
	$R_L = 50\Omega, V_R = 10V$		-	5	-	

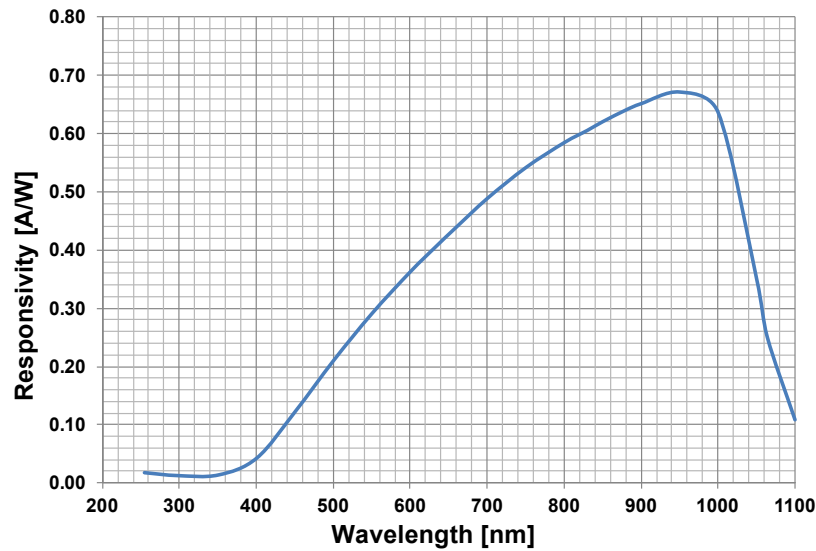
**Response time of 10% to 90% is specified at 660nm wavelength light.

DS SD066-24-21-011 Rev. H
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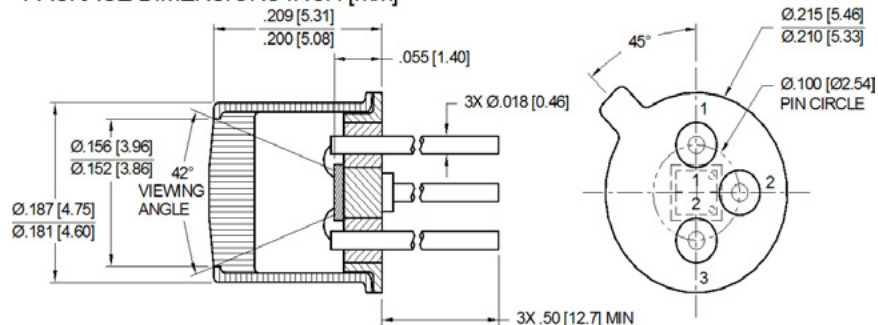
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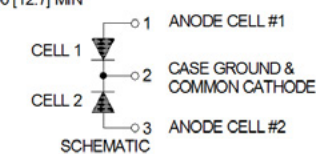
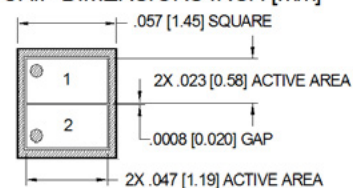
> Spectral Response



PACKAGE DIMENSIONS INCH [mm]



CHIP DIMENSIONS INCH [mm]



TO-46 PACKAGE

>Soldering Conditions: 260°C 1/16 inch away from case for 3 seconds max.

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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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