

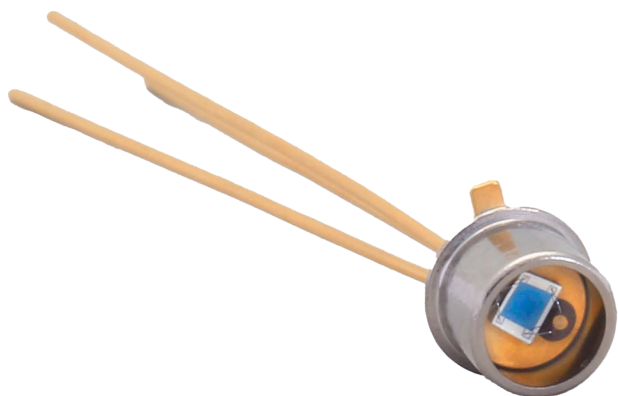
SD066-24-21-011

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

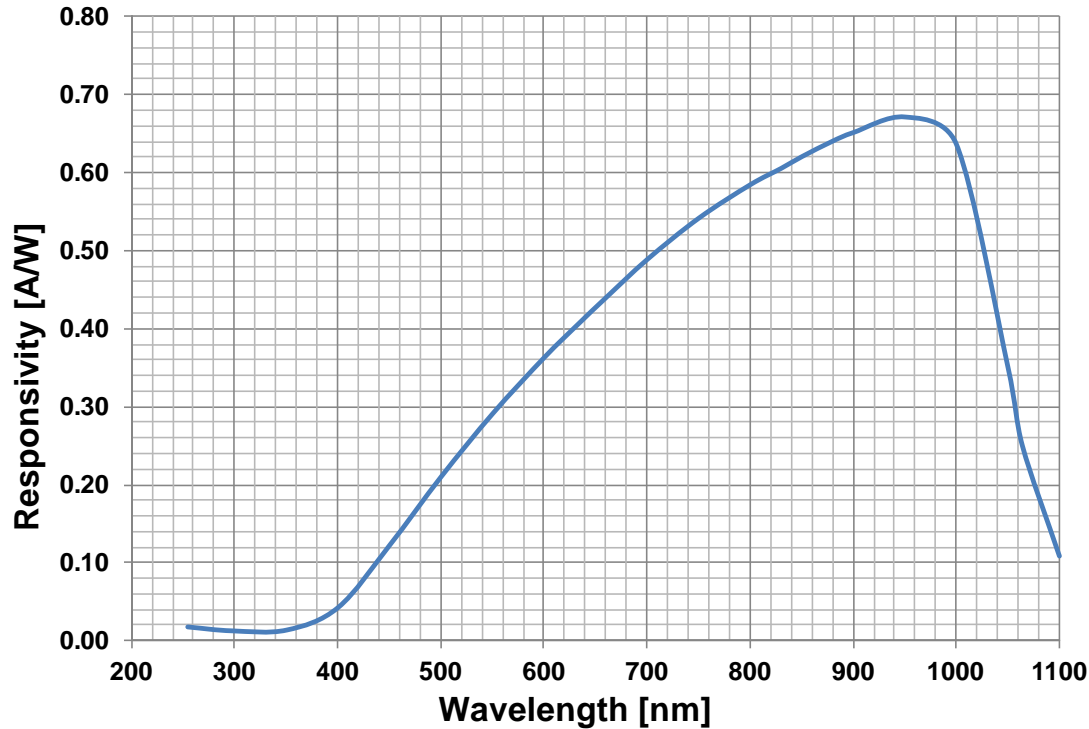
Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD066-24-21-011	350 to 1100	50	-40 to +125	-55 to +150	TO-46

> Electrical and Optical Characteristics

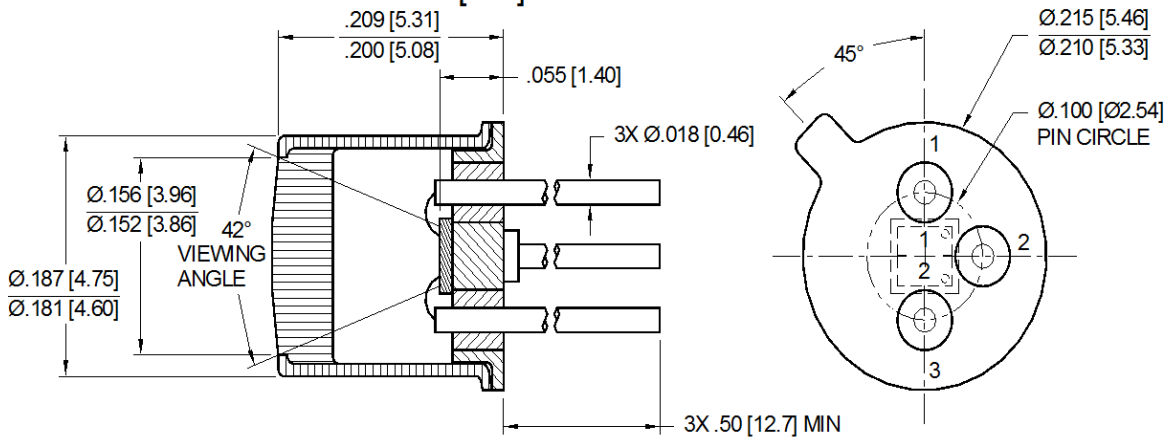
Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Dark Current	$V_R = 5V$	I_D	-	0.2	1.0	nA
Shunt Resistance	$V_R = 10 \text{ mV}$	R_{SH}	550	-	-	MΩ
Junction Capacitance	$V_R = 0V, f = 1 \text{ MHz}$	C_J	-	15	-	pF
	$V_R = 10V, f = 1 \text{ MHz}$		-	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	$I = 10 \mu A$	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.

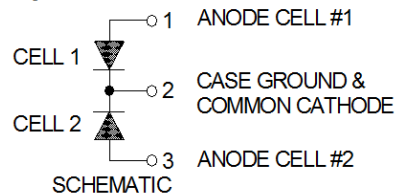
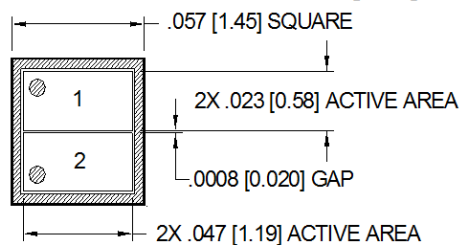
> Spectral Response



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

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