

SD100-11-21-221



FEATURES

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

DESCRIPTION

The **SD100-11-21-221** is a red enhanced silicon PIN photodiode, packaged in a hermetic TO-5 metal package.

APPLICATIONS

- Instrumentation
- Industrial
- Medical

> Absolute Maximum Ratings

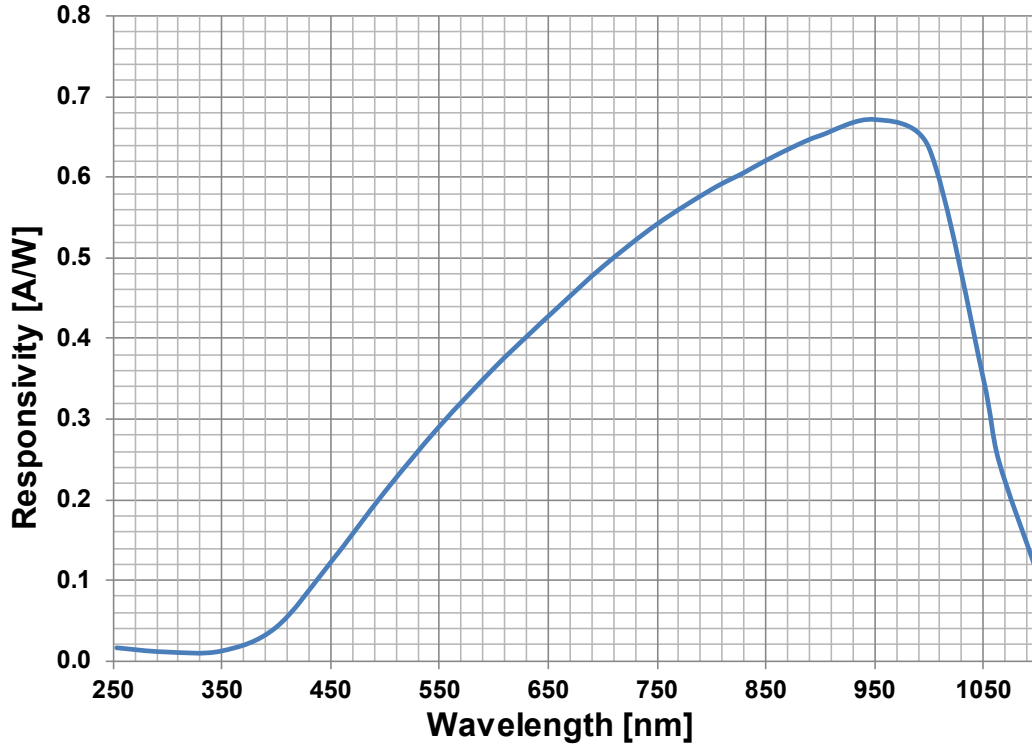
Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD100-11-21-221	350 to 1100	75	-40 to +125	-55 to +150	TO-5

> Electrical and Optical Characteristics

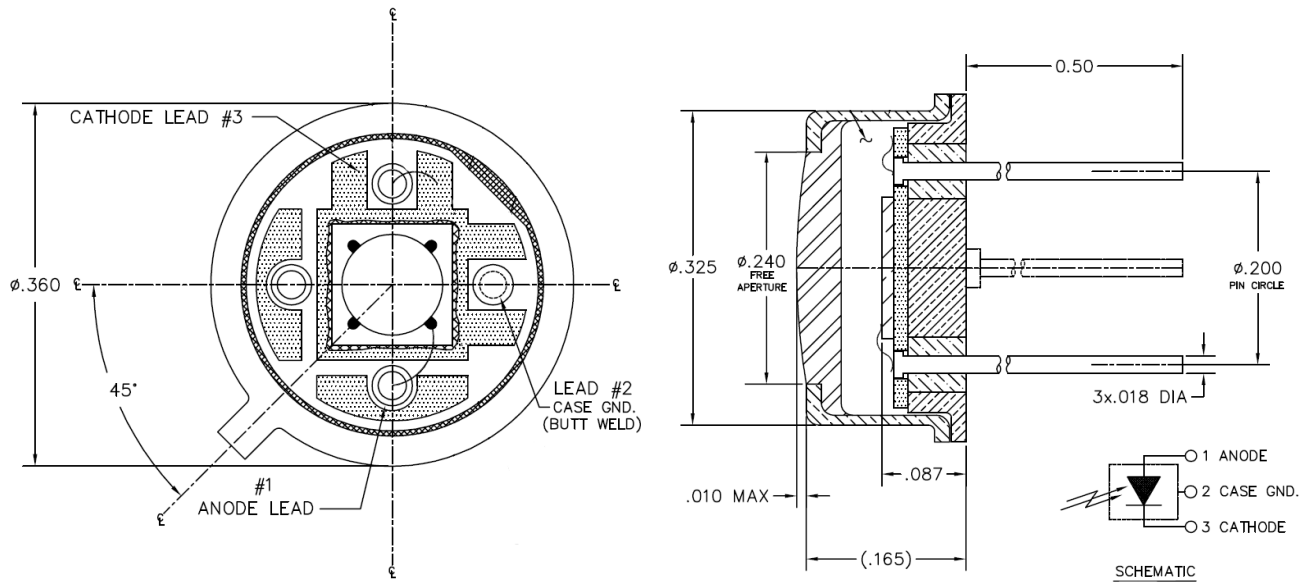
Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Dark Current	$V_R = 5V$	I_D	-	1.6	6.4	nA
Shunt Resistance	$V_R = 10\text{ mV}$	R_{SH}	300	-	-	MΩ
Junction Capacitance	$V_R = 0V, f = 1\text{ MHz}$	C_J	-	87	-	pF
	$V_R = 5V, f = 1\text{ MHz}$		-	18	-	
Spectral Application Range	Spot Scan	λ	350	-	1100	nm
Responsivity	$\lambda = 633\text{ nm}, V_R = 0V$	R	0.32	0.36	-	A/W
	$\lambda = 900\text{ nm}, V_R = 0V$		0.50	0.55	-	
Breakdown Voltage	$I = 10\ \mu A$	V_{BD}	-	50	-	V
Noise Equivalent Power	$V_R = 5V @ \lambda = 950\text{ nm}$	NEP	-	4.0×10^{-14}	-	W/√Hz
Response Time**	$R_L = 50\ \Omega, V_R = 0V$	t_R	-	190	-	ns
	$R_L = 50\ \Omega, V_R = 10V$		-	13	-	

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

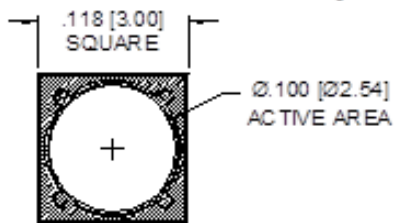
> Spectral Response



> TO-5 Window Cap [SD100-11-21-221]



CHIP DIMENSIONS INCH [mm]



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

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