

FEATURES

- Low noise
- Red enhanced
- High shunt resistance
- High response

DESCRIPTION

The **SD 100-14-21-021** is a high performance silicon PIN photodiode, red enhanced, packaged in a leaded hermetic TO-5 metal package.

APPLICATIONS

- Instrumentation
- Industrial
- Medical



ABSOLUTE MAXIMUM RATING (TA) = 23°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	°C
T _O	Operating Temperature	-40	+125	°C
T _S	Soldering Temperature*		+240	°C

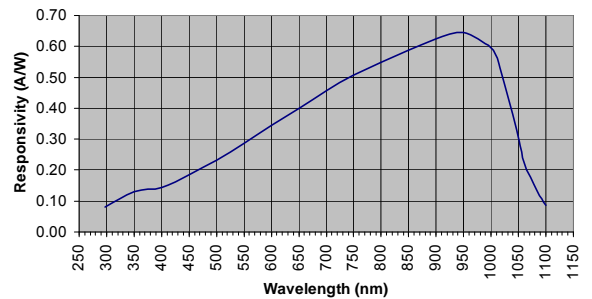
* 1/16 inch from case for 3 seconds max.

RELIABILITY

This API high-reliability detector is in principle able to meet military test requirements (Mil-Std-750, Mil-Std-883) after proper screening and group test. Contact API for recommendations on specific test conditions and procedures.

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _D	Dark Current	V _R = 5 V		0.3	1.6	nA
R _{SH}	Shunt Resistance	V _R = 10 mV	600			MΩ
C _J	Junction Capacitance	V _R = 0 V, f = 1 MHz		87		pF
		V _R = 5 V, f = 1 MHz		26		
λ range	Spectral Application Range	Spot Scan	350		1100	nm
R	Responsivity	λ = 633 nm, V _R = 0 V	0.32	0.36		A/W
		λ = 900 nm, V _R = 0 V	0.50	0.55		
V _{BR}	Breakdown Voltage	I = 10 μA		50		V
NEP	Noise Equivalent Power	V _R = 5 V @ λ = 950 nm		1.8X10 ⁻¹⁴		W/√Hz
t _r	Response Time**	RL = 50 Ω, V _R = 0 V		190		nS
		RL = 50 Ω, V _R = 10 V		13		

SPECTRAL RESPONSE



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

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.