



DESCRIPTION

The SD 100-13-23-222 is UV enhanced silicon PIN photodiode assembled in a hermetic TO-5 metal package with isolated pins.

FEATURES

- Low Noise
- High Speed
- High shunt resistance
- High response

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.

APPLICATIONS

- Instrumentation
- Medical
- Industrial

ABSOLUTE MAXIMUM RATINGS

PARAMETER	MIN	MAX	UNITS
Reverse Voltage	-	50	V
Operating Temperature	-40	+125	°C
Storage Temperature	-55	+150	°C
Soldering Temperature	-	+260	°C

T_a = 23°C
non condensing

see recommended reflow profile

T_a = 23°C unless noted otherwise

OPTO-ELECTRICAL PARAMETERS

CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Dark Current	V _R = 5V	-	1	6.5	nA
Shunt Resistance	V _R = 10 mV	200	300	-	MΩ
Junction Capacitance	V _R = 0 V, f = 1 MHz	-	90	-	pF
Junction Capacitance	V _R = 50 V, f = 1 MHz	-	9	-	pF
Spectral Application Range	Spot Scan	250	-	1100	nm
Responsivity	I = 365 nm V, V _R = 0 V	0.10	0.18	-	A/W
Breakdown Voltage	I = 10 μA	30	50	-	V
Noise Equivalent Power	V _R = 0V @ I=Peak	-	3x10 ⁻¹⁴	-	W/Hz ^{1/2}
Response Time	RL = 50 Ω, V _R = 0 V	-	190	-	nS
	RL = 50 Ω, V _R = 10 V	-	13	-	

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

