



DESCRIPTION

The **SD019-141-411 IR920** is an IR band-pass filtered Silicon Photodiode, assembled in a 0805 SMT package.

FEATURES

- Small Footprint
- Low Capacitance
- High Speed

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

- Industrial Sensors
- Light Management
- Handheld Devices

ABSOLUTE MAXIMUM RATINGS

PARAMETER	MIN	MAX	UNITS	
Reverse Voltage	-	50	V	T _a = 23°C non condensing
Operating Temperature	-40	+105	°C	
Storage Temperature	-50	+125	°C	see recommended reflow profile
Soldering Temperature*	-	+260	°C	

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.

$T_a = 23^\circ\text{C}$ unless noted otherwise

OPTO-ELECTRICAL PARAMETERS

CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage	$I_f = 10 \text{ mA}$	0.5	0.8	1.3	V
Breakdown Voltage	$I_R = 100 \mu\text{A}$	50	-	-	V
Shunt Resistance	$V_{\text{bias}} = 10 \text{ mV}$	-	2	-	$\text{G}\Omega$
Dark Current	$V_R = 10 \text{ V}$	-	20	500	pA
Junction Capacitance	$V_R = 5 \text{ V}; f = 1000 \text{ kHz}$	-	6.0	-	pF
Rise Time @ 920 nm	$V_R = 3 \text{ V}; R_i = 1000\Omega$	-	-	1.0	N nS
Responsivity (-IR)	$V_R = 0 \text{ V}; \lambda = 920 \text{ nm}$	-	0.4	-	A/W

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

