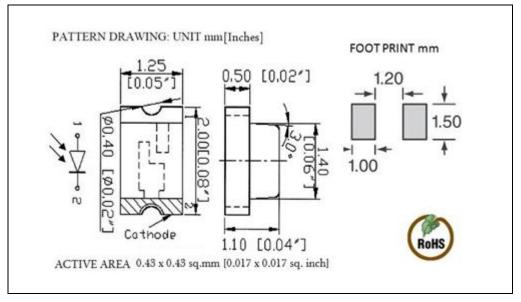


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Precision – Control – Results





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						



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OPTO-ELECTRICAL PARAMETERS

 $T_a = 23$ °C unless noted otherwise

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

