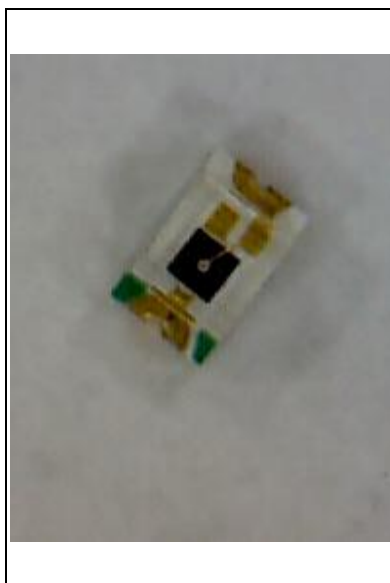
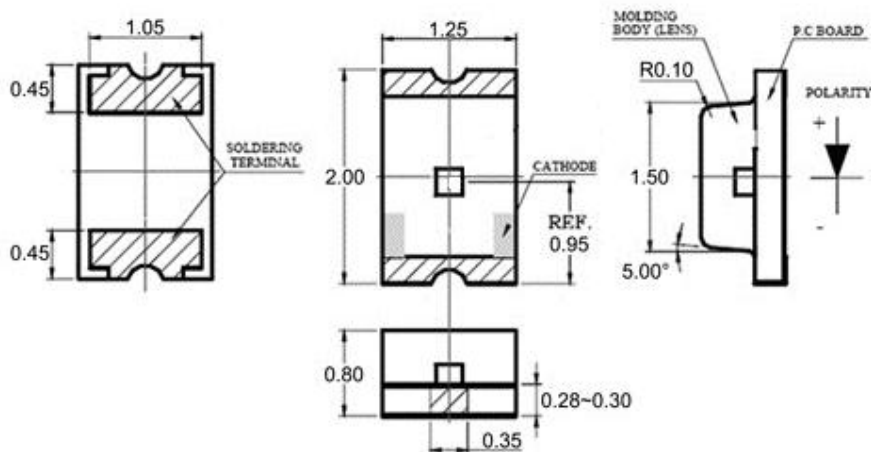




0805 PACKAGE DIMENSIONS, MM



DESCRIPTION

The **SD019-141-411 IR920** is an IR enhanced 0.18mm² active area silicon photodiode with an integrated bandpass filter, assembled in a 0805 SMT package.

FEATURES

- Improved sensitivity in NIR area
- 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
Operating Temperature	-40	+105	°C
Storage Temperature	-50	+125	°C
Soldering Temperature*	-	+260	°C

T_a = 23°C non condensing
see recommended reflow profile

OPTO-ELECTRICAL PARAMETERS

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

CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage	$I_f = 10\text{ mA}$	0.5	0.8	1.3	V
Breakdown Voltage	$I_R = 100\text{ }\mu\text{A}$	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	$V_R = 3\text{ V}; R_f = 1000\Omega$	-	-	1.0	μs
Responsivity (-IR)	$V_R = 0\text{ V}; \lambda = 920\text{ nm}$	-	0.5	-	A/W

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

