



### DESCRIPTION

The **SD019-111-411** is a high sensitivity, low noise silicon PIN photodiode with 0.79mm<sup>2</sup> active area, mounted in a 1206 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

T<sub>a</sub> = 25°C UNLESS OTHERWISE NOTED

PARAMETER	MIN	MAX	UNITS
Reverse Voltage	-	50	V
Operating Temperature	-40	+105	°C
Storage Temperature	-50	+125	°C
Soldering Temperature	-	+260	°C

**OPTO-ELECTRICAL PARAMETERS**

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

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage	$I_f = 10 \text{ mA}$	0.5	0.8	1.3	V
Light Current (2856K)	$V_R = 5\text{V}; H = 1000 \text{ lux}$	-	9.0	-	$\mu\text{A}$
Breakdown Voltage	$I_R = 100 \mu\text{A}$	50	-	-	V
Shunt Resistance	$V_{\text{bias}} = 10 \text{ mV}$	-	1.0	-	$\text{G}\Omega$
Dark Current	$V_R = 10 \text{ V}$	-	-	0.5	nA
Junction Capacitance	$V_R = 5\text{V}; f = 1000 \text{ kHz}$	-	20	-	pF

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

