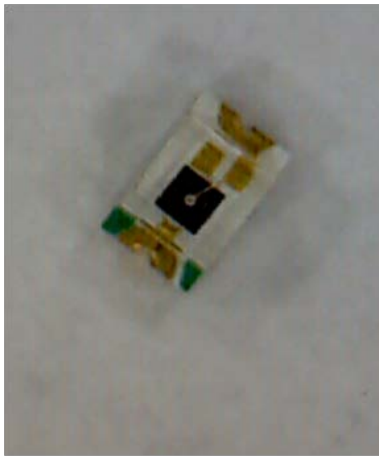


## SD019-141-411-X



### FEATURES

- Small Footprint
- Low Capacitance
- High Speed

### DESCRIPTION

The **SD019-141-411-X** is a silicon PIN 0.18mm<sup>2</sup> active area photodiode assembled in a 0805 package with an integrated bandpass filter. Three standard wavelength ranges are available.

### APPLICATIONS

- Industrial Sensing
- Light Management
- Handheld Devices

#### > Absolute Maximum Ratings

Part No.	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
SD019-141-411-X	50	-40 to +105	-50 to +125	0805

Part Number	Bandpass	Range [nm]
SD019-141-411 - R	Red	550-680
SD019-141-411 - G	Green	450-600
SD019-141-411 - B	Blue	400-550

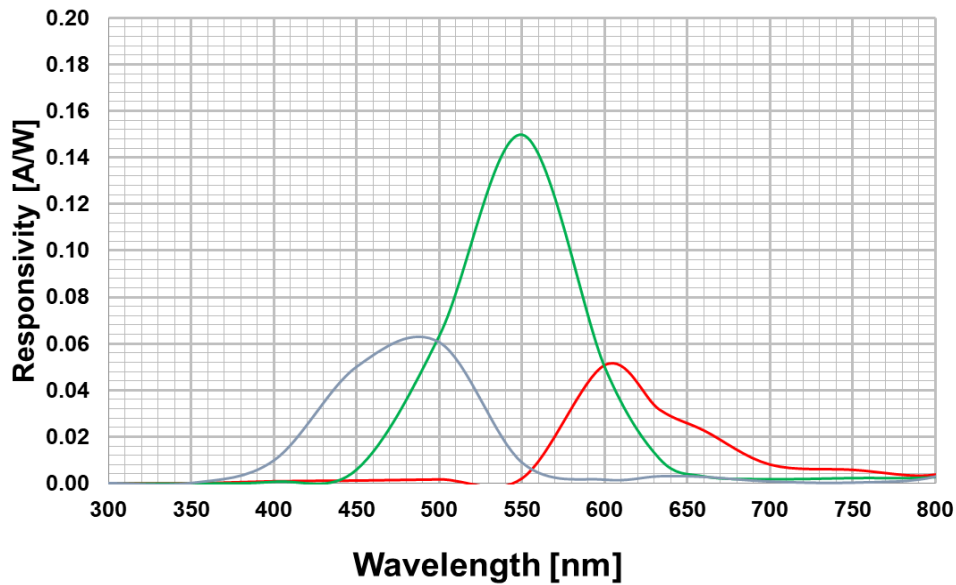
#### > Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Forward Voltage	I <sub>F</sub> = 10 mA	V <sub>F</sub>	0.5	0.8	1.3	V
Responsivity (-B)	V <sub>R</sub> = 0V; λ = 450 nm	R <sub>B</sub>	-	0.06	-	A/W
Responsivity (-G)	V <sub>R</sub> = 0V; λ = 550 nm	R <sub>G</sub>	-	0.12	-	A/W
Responsivity (-R)	V <sub>R</sub> = 0V; λ = 625 nm	R <sub>R</sub>	-	.05	-	A/W
Breakdown Voltage	I <sub>R</sub> = 100 μA	V <sub>BD</sub>	50.0	-	-	V
Shunt Resistance	V <sub>R</sub> = 10 mV	R <sub>SH</sub>	-	6.0	-	GΩ
Dark Current	V <sub>R</sub> = 10 V	I <sub>D</sub>	-	1.0	-	nA
Junction Capacitance	V <sub>R</sub> = 0V; f = 1000 kHz	C <sub>J</sub>	-	28	-	pF
	V <sub>R</sub> = 5V; f = 1000 kHz		-	10	-	

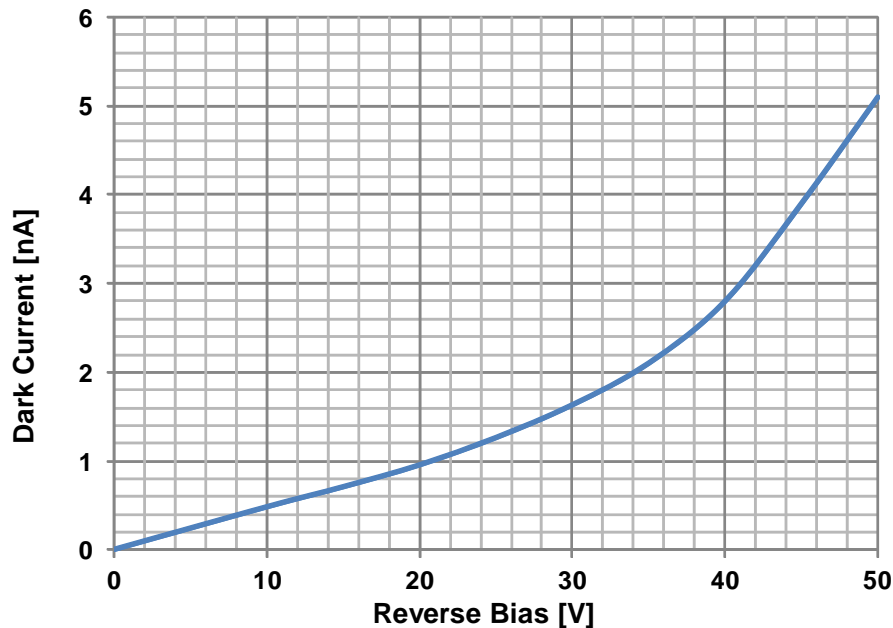
## &gt; Soldering

Recommendation		
Wave	Not Advised	-
IR Oven Reflow	Allowed	See Reflow Profile
Forced Convection Reflow	Recommended	See Reflow Profile
Convection Reflow	Recommended	See Reflow Profile
Vapor Phase Reflow	Recommended	See Reflow Profile
Manual	Allowed	260°C for 3 seconds max.
Moisture Sensitivity Level	3	J-STD-033

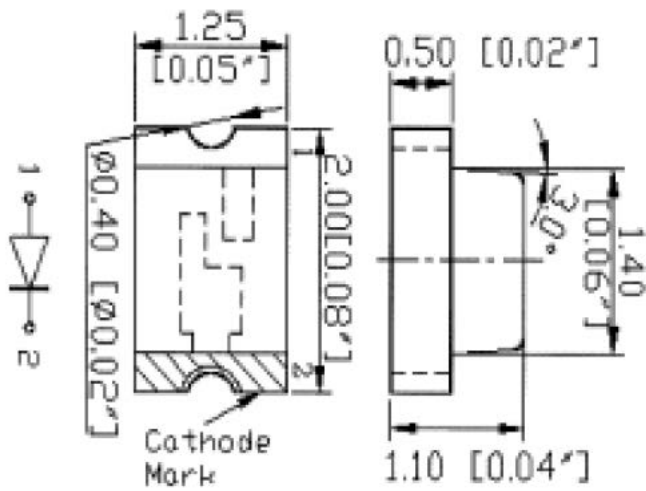
## &gt; Typical Spectral Response



## &gt; Dark Current vs Reverse Bias

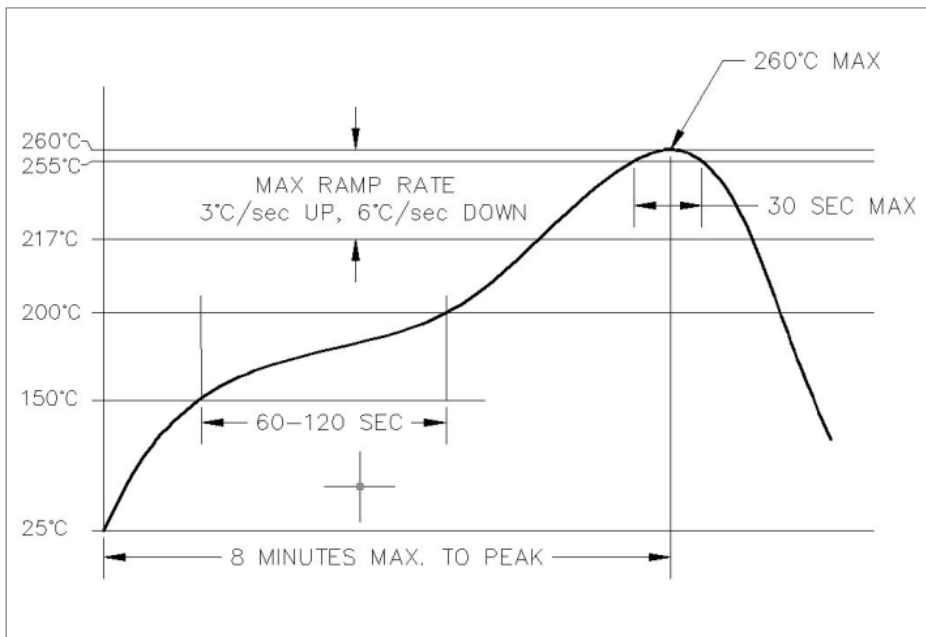


## &gt;Package Drawing in mm



**PHOTO DIODE DIE SIZE: 24 X 24 mils**

## &gt;Solder Reflow Profile



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## MATERIALS SAFETY

*This product is free of conflict minerals and meets REACH compliance. Please see website for reports.*