

FEATURES

- Small Footprint
- Low Capacitance
- High Speed

DESCRIPTION

The **SD 019-141-411** is a silicon photodiode assembled in a 0805 SMT package with an integrated bandpass filter. Three standard wavelength ranges are available.

APPLICATIONS

- Industrial Sensors
- Light Management
- Handheld Devices

ORDERING INFORMATION

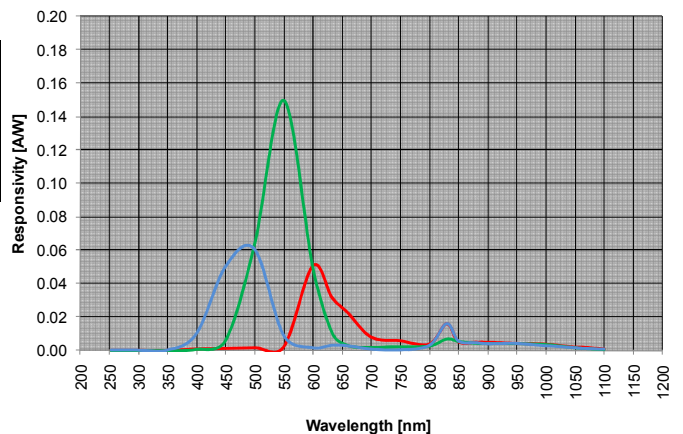
PART NUMBER	BAND PASS	RANGE [nm]
SD019-141-411 - R	Red	625 – 655
SD019-141-411 - G	Green	510 – 540
SD019-141-411 - B	Blue	435 – 465

ABSOLUTE MAXIMUM RATING

T_a = 25°C UNLESS OTHERWISE NOTED

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _R	Reverse Voltage		50	V
T _{Op}	Operating Temperature	-40	+105	°C
T _{Stg}	Storage Temperature	-50	+125	°C
T _S	Soldering Temperature*		+260	°C

TYPICAL SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS RATING

T_a = 25°C, UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V _f	Forward Voltage	I _f = 10 mA	0.5	0.8	1.3	V
R	Responsivity (-R)	V _R = 0V; λ = 450 nm	-	0.06	-	A/W

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Filtered SMT Photodiode Assembly

**SD 019-141-411 -R
-G
-B**

ELECTRO-OPTICAL CHARACTERISTICS RATING

T_a= 25°C, UNLESS OTHERWISE NOTED

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
R	Responsivity (-G)	V _R = 0V; λ = 550 nm	-	0.12	-	A/W
R	Responsivity (-B)	V _R = 0V; λ = 625 nm	-	0.05	-	A/W
V _{br}	Breakdown Voltage	I _R = 100 μA	50	-	-	V
R _{sh}	Shunt Resistance	V _{bias} = 10 mV	-	2.0	-	GΩ
I _d	Dark Current	V _R = 10 V	-	-	0.5	nA
C _j	Junction Capacitance	V _R = 5V; f = 1000 kHz	-	6.0	-	pF
t _r	Rise Time	V _R = 3V; R _i = 1000Ω	-	10	-	nS

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