



**DESCRIPTION**

The **PDB-C171SM** is a blue enhanced PIN silicon photodiode ideal for high speed photoconductive or photovoltaic applications assembled in a compact surface mount package.

**FEATURES**

- Surface mount
- Photoconductive
- Low cost
- High speed



**RELIABILITY**

Contact API for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Photointerrupters
- Oximeter sensors
- Barcode
- Glucometers

**ABSOLUTE MAXIMUM RATINGS**

PARAMETERS	MIN	MAX	UNIT
Reverse Voltage	-	60	V
Operating Temperature	-40	+80	°C
Storage Temperature	-40	+100	°C
Soldering Temperature	-	+260	°C
Wavelength Range	400	1050	nm
Maximum Power Dissipation	-	215	mW

T<sub>a</sub> = 23°C unless noted otherwise

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

**ELECTRO-OPTICAL CHARACTERISTICS RATING**

T<sub>a</sub> = 23°C unless noted otherwise

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Breakdown Voltage	I <sub>bias</sub> = 10 μA	60	-	-	V
Responsivity	λ = 900 nm	0.60	0.68	-	A/W
Responsivity	λ = 1050 nm	-	0.3	-	A/W
Dark Current	V <sub>bias</sub> = 10V	-	2	30	nA
Capacitance	V <sub>bias</sub> = 3V; f = 1 MHz	-	25	-	pF
Rise Time (1KΩ load)	V <sub>bias</sub> = 10V; λ = 820 nm	-	100	-	ns
Noise Equivalent Power	λ = 950 nm V <sub>r</sub> = 10V	-	4X10 <sup>-14</sup>	-	fW/√Hz

α

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

