



**DESCRIPTION**

The **PDB-C150SM** is a blue enhanced PIN silicon photodiode in a photoconductive mode packaged in a water clear SOT-23 surface mount package.

**FEATURES**

- Surface Mount
- Photoconductive
- High Speed
- Low cost

**RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Industrial Control
- Opto Switches
- Opto Counters



**ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN	MAX	UNITS	
Reverse Voltage	-	50	V	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-40	+125	°C	-
Operating Temperature	-40	+80	°C	-
Soldering Temperature*	-	+260	°C	-

\* 1/16 inch from case for 3 seconds max.

**OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	H= 100 fc, 2850 K	1	2	-	μA
Dark Current	V <sub>R</sub> = 10 V	-	2	30	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	-	100	-	MΩ
Junction Capacitance	V <sub>R</sub> =10V; f = 1 MHz	-	1	5	pF
Spectral Application Range	Spot Scan	400	-	1100	nm
Breakdown Voltage	I=10 μA	30	100	-	V
Noise Equivalent Power	V <sub>R</sub> =10V@λ= Peak	-	2.5x10 <sup>-15</sup>	-	W/√Hz
Response Time**	RL = 50Ω, V <sub>R</sub> = 50 V	-	6.0	-	nS

\*\*Response time of 10% to 90% is specified at 660nm wavelength light.

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

