



**DESCRIPTION**

The **PDB-C142** is a blue enhanced PIN silicon photodiode in a photoconductive mode packaged in a water clear T1 3/4 plastic package.

**FEATURES**

- Large active area
- Photoconductive
- High Speed
- Low cost

**RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Smoke detectors
- Light pen detectors
- TV & VCR remotes
- Bar code detectors



**ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN	MAX	UNITS		
Reverse Voltage	-	-	100	V	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-40	-	+100	°C	
Operating Temperature	-40	to	+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	100	150	-	μA
Dark Current	V <sub>R</sub> = 10 V	-	5	30	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	100	500	-	MΩ
Junction Capacitance	V <sub>R</sub> =10V; f = 1 MHz	-	18	25	pF
Spectral Application Range	Spot Scan	400	-	1100	nm
Breakdown Voltage	I=10 μA	15	25	-	V
Noise Equivalent Power	V <sub>R</sub> =10V@λ= Peak	-	2x10 <sup>-14</sup>	-	W/√Hz
Response Time**	RL = 1KΩ, V <sub>R</sub> = 10 V	-	50	-	nS

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

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

