



## DESCRIPTION

The **PDB-C609-3** is a silicon red enhanced solderable photodiode designed for low capacitance and high speed for photoconductive applications.

## FEATURES

- Red enhanced
- Photoconductive
- High quantum efficiency

## RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

## APPLICATIONS

- Optical encoder
- Position sensor
- Industrial controls
- Instrumentation

## ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN	MAX	UNITS	
Reverse Voltage	-	75	V	$T_a = 23^\circ\text{C}$ UNLESS OTHERWISE NOTED
Storage Temperature	-40	125	$^\circ\text{C}$	-
Operating Temperature	-40	to +100	$^\circ\text{C}$	-
Soldering Temperature*	-	+224	$^\circ\text{C}$	-

\* 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	490	545	-	μA
Dark Current	V <sub>R</sub> = 5V	-	30	75	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	3	10	-	MΩ
Junction Capacitance	V <sub>R</sub> =5V; f = 1 MHz	-	240	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Breakdown Voltage	I=10 μA	25	50	-	V
Noise Equivalent Power	V <sub>R</sub> =10V@λ= Peak	-	4x10 <sup>-13</sup>	-	W/√Hz
Response Time**	RL = 1K, V <sub>R</sub> = 5 V	-	30	-	nS

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

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

