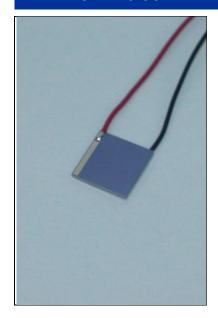
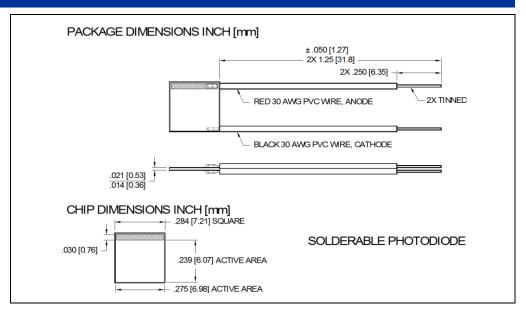


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# **Precision – Control – Results**





#### **DESCRIPTION**

The **PDB-C609-2** 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 <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-40	-	125	°C	-
Operating Temperature	-40	to	+100	°C	-
Soldering Temperature*	-	-	+224	°C	-

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



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# **Precision – Control – Results**

## **OPTO-ELECTRICAL PARAMETERS**

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

PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
Short Circuit Current	H= 100 fc, 2850 K	490	545	-	μΑ
Dark Current	V <sub>R</sub> = 5 V	-	30	75	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	3	10	-	ΜΩ
Junction Capacitance	V <sub>R</sub> =5V; f = 1 MHz	-	240	-	GΩ
Spectral Application Range	Spot Scan	350	-	0.5	nA
Breakdown Voltage	I=10 μA	25	50	-	pF
Noise Equivalent Power	V <sub>R</sub> =0V@λ= Peak	-	4x10 <sup>-13</sup>	-	W/√ <sub>Hz</sub>
Response Time**	$RL = 1K, V_R = 50 V$	-	30	-	nS

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

# **TYPICAL PERFORMANCE**

### **SPECTRAL RESPONSE**

