



**DESCRIPTION**

The **PDB-C612-2** 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 encoders
- Position Sensors
- 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*	-	-	+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	500	680	-	μA
Dark Current	V <sub>R</sub> = 5V	-	1	50	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	5	100	-	MΩ
Junction Capacitance	V <sub>R</sub> =5V; f = 1 MHz	-	300	-	pF
Spectral Application Range	Spot Scan	350	-	1100	Nm
Breakdown Voltage	I=10 μA	10	50	-	V
Noise Equivalent Power	V <sub>R</sub> =0V@λ= Peak	-	2x10 <sup>-14</sup>	-5x10 <sup>-13</sup>	WHz <sup>1/2</sup>
Response Time	RL = 1KΩ, V <sub>R</sub> = 5 V	-	45	-	nS

**TYPICAL PERFORMANCE**

**SPECTRAL RESPONSE**

