



DESCRIPTION

The **PDB-C613-2** 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

This Luna high-reliability device is in principle able to meet military test requirements (Mil-STD-750, Mil-STD-883) after proper screening and group test. Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Optical encode
- 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	$^\circ\text{C}$	-

OPTO-ELECTRICAL PARAMETERS

T_a = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	H= 100 fc, 2850 K	0.70	1.0	-	mA
Dark Current	V _R = 5V	-	90	180	nA
Shunt Resistance	V _R = 10 mV	0.5	1.0	-	MΩ
Junction Capacitance	V _R =5V; f = 1 MHz	-	350	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Breakdown Voltage	I=10 μA	25	50	-	V
Noise Equivalent Power	V _R =0V@λ= Peak	-	3x10 ⁻¹³	-	W/Hz ^{1/2}
Response Time	RL = 50Ω,V _R = 5 V	-	50	-	nS

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

