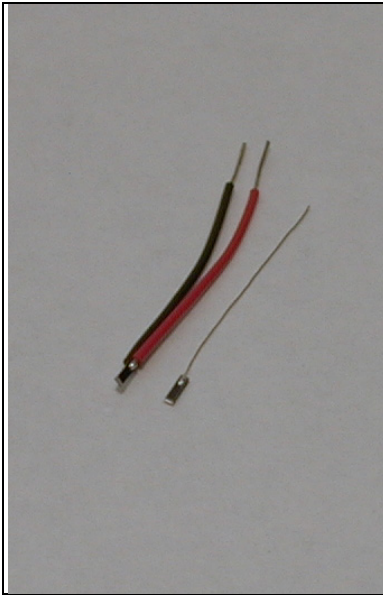
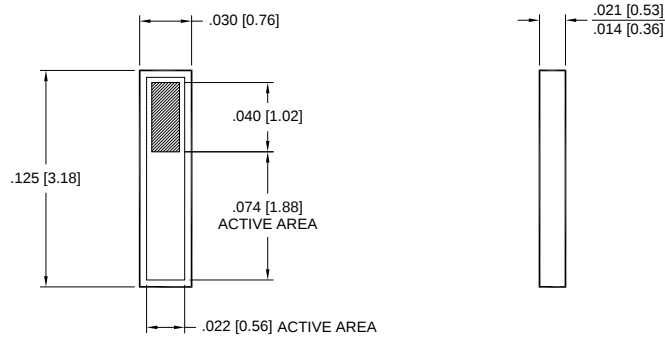




CHIP DIMENSIONS INCH [mm]



SOLDERABLE PHOTODIODE

DESCRIPTION

The **PDB-V601-1** is a silicon red enhanced solderable photodiode designed for low noise and for photovoltaic applications.

FEATURES

- Red Enhanced
- Photovoltaic
- High quantum efficiency

RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

APPLICATIONS

- Optional encode
- Position sensor
- Industrial Controls
- Instrumentation



ABSOLUTE MAXIMUM RATINGS

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	25	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

$T_a = 23^\circ\text{C}$ UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Short Circuit Current	$H = 100 \text{ fc}$, 2850 K	10	13	-	μA
Dark Current	$V_R = 5\text{V}$	-	3	7	nA
Shunt Resistance	$V_R = 10 \text{ mV}$	100	250	-	$\text{M}\Omega$
Junction Capacitance	$V_R = 0\text{V}$; $f = 1 \text{ MHz}$	-	250	-	pF
Spectral Application Range	Spot Scan	350	-	1100	nm
Breakdown Voltage	$I = 10 \mu\text{A}$	5	15	-	V
Noise Equivalent Power	$V_R = 10\text{V}$ @ $\lambda = \text{Peak}$	-	2×10^{-14}	-	$\text{W}/\sqrt{\text{Hz}}$
Response Time**	$R_L = 1\text{K}\Omega$, $V_R = 0 \text{ V}$	-	300	-	nS

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

TYPICAL PERFORMANCE

SPECTRAL RESPONSE

