## : ©hipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email \& Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, \#122 Zhenhua RD., Futian, Shenzhen, China



## DESCRIPTION

The PDB-V612-2 is silicon, planar diffused, red enhanced solderable photodiode that comes in PVC wire leads.

## RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

## FEATURES

- Red Enhanced
- Photovoltaic
- High quantum efficiency


## APPLICATIONS

- Optical encoder
- Position sensor
- Industrial controls
- Instrumentation


## ABSOLUTE MAXIMUM RATINGS

| SYMBOL | MIN |  | MAX | UNITS |  |
| :--- | ---: | :---: | :---: | :--- | :--- |
| Reverse Voltage | - | - | 25 | V | $\mathrm{~T}_{\mathrm{a}}=23^{\circ} \mathrm{C}$ UNLESS OTHERWISE NOTED |
| Storage Temperature | -40 | - | 125 | ${ }^{\circ} \mathrm{C}$ | - |
| Operating Temperature | -40 | to | +100 | ${ }^{\circ} \mathrm{C}$ | - |
| Soldering Temperature ${ }^{*}$ | - | - | +224 | ${ }^{\circ} \mathrm{C}$ | - |

* 1/16 inch from case for 3 seconds max.

Solderable Silicon photodiodes
PDB-V612-2
ロPTロELECTRONICS
WWW.LUNAINC.COM
Precision - Control - Results
$\mathrm{T}_{\mathrm{a}}=23^{\circ} \mathrm{C}$ UNLESS NOTED OTHERWISE
OPTO-ELECTRICAL PARAMETERS

| PARAMETER | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Short Circuit Current | $\mathrm{H}=100 \mathrm{fc}, 2856 \mathrm{~K}$ | 720 | 800 | - | $\mu \mathrm{A}$ |
| Dark Current | $\mathrm{V}_{\mathrm{R}}=5 \mathrm{~V}$ | - | 40 | 80 | nA |
| Shunt Resistance | $\mathrm{V}_{\mathrm{R}}=10 \mathrm{mV}$ | 7 | 15 | - | $\mathrm{M} \Omega$ |
| Junction Capacitance | $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V} ; \mathrm{f}=1 \mathrm{MHz}$ | - | 9000 | - | pF |
| Spectral Application Range | Spot Scan | 350 | - | 1100 | nm |
| Breakdown Voltage | $\mathrm{I}=10 \mu \mathrm{~A}$ | 5 | 15 | - | V |
| Noise Equivalent Power | $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V} @ \lambda=$ Peak | - | $2.2 \times 10^{-13}$ | - | $\mathrm{W} / \mathrm{V}_{\mathrm{Hz}}$ |
| Response Time** | $\mathrm{RL}=1 \mathrm{~K} \Omega, \mathrm{~V}_{\mathrm{R}}=0 \mathrm{~V}$ | - | 2800 | - | nS |

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

## TYPICAL PERFORMANCE

## SPECTRAL RESPONSE



