



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

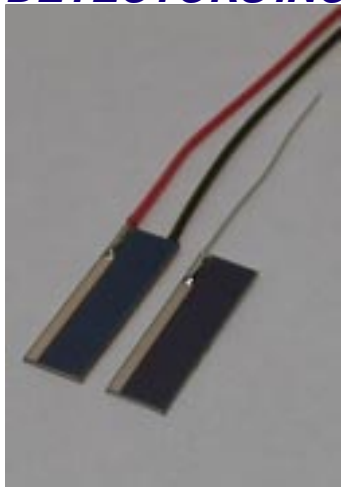
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

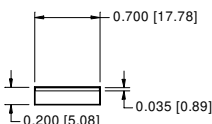


PHOTONIC DETECTORS INC.

Silicon Photodiode, Blue Enhanced Solderable Chips Photoconductive Type PDB-C612 Photovoltaic Type PDB-V612

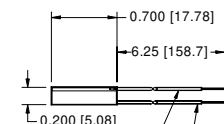


PACKAGE DIMENSIONS INCH (mm)



BARE CHIP

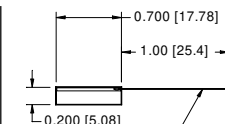
ACTIVE AREA = 68.7 mm²
PDB-C612-1
PDB-V612-1



ANODE, RED WIRE
CATHODE, BLACK WIRE

30 GAGE P.V.C. WIRE

PDB-C612-2
PDB-V612-2



ANODE, BUSS WIRE

30 GAGE BUSS WIRE

PDB-C612-3
PDB-V612-3

FEATURES

- Blue enhanced
- Photovoltaic type
- Photoconductive type
- High quantum efficiency

DESCRIPTION:

Low cost blue enhanced planar diffused silicon solderable photodiode. The **PDB-V612** cell is designed for low noise, photovoltaic applications. The **PDB-C612** cell is designed for low capacitance, high speed, photoconductive operation. They are available bare, PVC or buss wire leads.

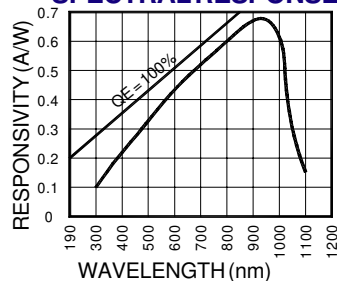
APPLICATIONS

- Optical encoder
- Position sensor
- Industrial controls
- Instrumentation

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	PDB-C612		PDB-V612		UNITS
		MIN	MAX	MIN	MAX	
V _{BR}	Reverse Voltage		75		25	V
T _{STG}	Storage Temperature	-40	+125	-40	+125	°C
T _O	Operating Temperature Range	-40	+100	-40	+100	°C
T _S	Soldering Temperature		+224		+224	°C
I _L	Light Current		500		500	mA

SPECTRAL RESPONSE



ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	PDB-C612			PDB-V612			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	810	900		720	800		μA
I _D	Dark Current	H = 0, V _R = 5 V*		75	150		40	80	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	5	10		7	15		MΩ
TC _{RSH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8			-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 5 V**		300			9000		pF
λ _{range}	Spectral Application Range	Spot Scan	350		1100	350		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		940			940		nm
V _{BR}	Breakdown Voltage	I = 10 μA	25	50		5	15		V
NEP	Noise Equivalent Power	V _R = 0 V @ Peak	7.0 x 10 ⁻¹³ TYP			2.16 x 10 ⁻¹³ TYP			W / √Hz
tr	Response Time	RL = 1 KΩ V _R = 5 V**		45			2800		nS

*V_R = 100 mV on Photovoltaic type **V_R = 0 V on Photovoltaic type

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

(FORM NO. 100-PDB-C612-V612 REV A)