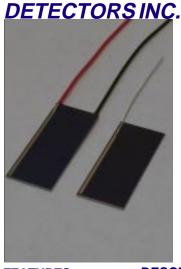
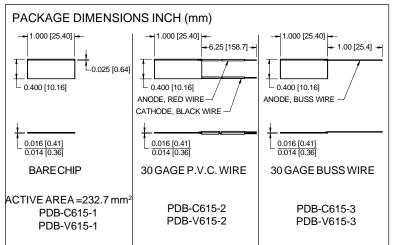
PHOTONIC Silicon Photodiode, Blue Enhanced Solderable Chips

Photoconductive Type PDB-C615 Photovoltaic Type PDB-V615





FEATURES

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

DESCRIPTION: Low cost blue enhanced planar diffused silicon solderable photodiode. The **PDB-V615** cell is designed

for low noise, photovoltaic applications. The **PDB-C615** cell is designed for low capacitance, high speed, photoconductive

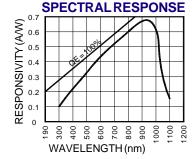
operation. They are available bare, PVC or buss wire leads.

APPLICATIONS

- Optical encoder
- Position sensor
- Industrial controls
- Instrumentation

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

SYMBOL	PARAMETER	PDB-	C615	PDB-	V615	UNITS	
01111202	17 WO WIE FER		MAX	MIN	MAX	0.11.0	
VBR	Reverse Voltage		75		25	V	
T _{STG}	Storage Temperature	-40	+125	-40	+125	°C	
То	Operating Temperature Range	-40	+100	-40	+100	∘C	
Ts	Soldering Temperature		+224		+224	°C	
I	Light Current		500		500	mA	



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

SYMBOL	CHARACTERISTIC	TESTCONDITIONS	PDB-C615			PDB-V615			LINITO
			MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 100 fc, 2850 K	2.5	2.8		2.5	2.8		mA
ΙD	Dark Current	H = 0, V _R = 5 V*		350	700		350	700	nA
Rsн	Shunt Resistance	H = 0, V _R = 10 mV	.1	.25		.2	.5		$M\Omega$
TC Rsh	RsH Temp. Coefficient	H = 0, V _R = 10 mV		-8			-8		%/°C
C₁	Junction Capacitance	H = 0, V _R = 5 V**		775			25800		pF
λrange	Spectral Application Range	Spot Scan	350		1100	350		1100	nm
λр	Spectral Response - Peak	Spot Scan		940			940		nm
VBR	Breakdown Voltage	I = 10 μA	25	50		5	15		V
NEP	Noise Equivalent Power	V _R = 0 V @ Peak	3.0 x 10 ⁻¹² TYP		5.0 x 10 ⁻¹³ TYP			W/ √Hz	
tr	Response Time	$RL = 1 K\Omega V_R = 5 V^{**}$		150			7000		nS