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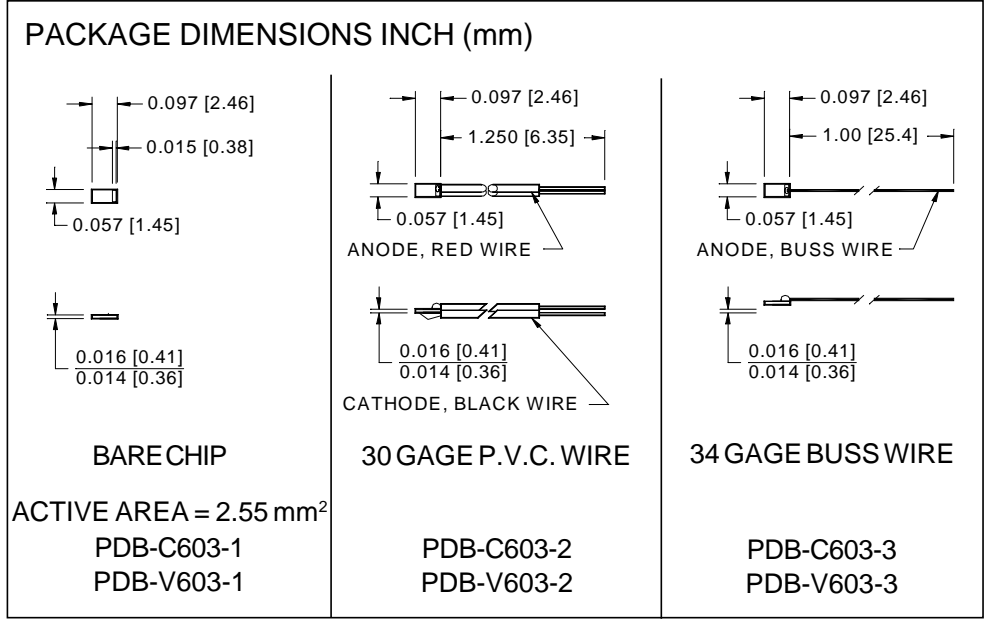
[Advanced Photonix, Inc.](#)
[PDB-C603-1](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

Silicon Photodiode, Blue Enhanced Solderable Chips

Photoconductive Type PDB-C603 Photovoltaic Type PDB-V603



FEATURES

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

DESCRIPTION:

Low cost blue enhanced planar diffused silicon solderable photodiode. The **PDB-V603** cell is designed for low noise, photovoltaic applications. The **PDB-C603** cell is designed for low capacitance, high speed, photoconductive operation. They are available bare, PVC or buss wire leads.

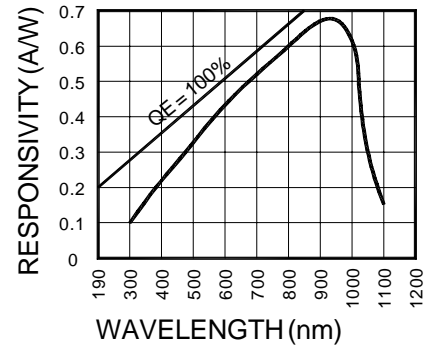
APPLICATIONS

- Optical encoder
- Position sensor
- Industrial controls
- Instrumentation

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

SYMBOL	PARAMETER	PDB-C603		PDB-V603		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-C603			PDB-V603			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	28	32		25	30		μA
I _D	Dark Current	H = 0, V _R = 5 V*		3	5		5	10	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	18	40		30	60		MΩ
TC R _{SH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8			-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 5 V**		25			350		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	3 x 10 ⁻¹³ TYP			4 x 2 ⁻¹⁴ TYP			W/ √Hz
tr	Response Time	RL = 1 KΩ V _R = 5 V**		12			400		nS

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