

FEATURES

- Low noise
- Blue enhanced
- High shunt resistance
- High response

DESCRIPTION

The **PDB-V109** is a silicon, PIN planar diffused, blue enhanced photodiode. Ideal for low noise photovoltaic applications. Packaged in a hermetic TO-8 metal can with a flat window.

APPLICATIONS

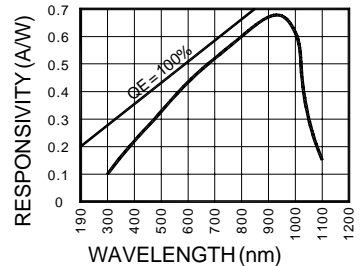
- Instrumentation
- Industrial controls
- Photoelectric switches
- Encoder sensors

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		75	V
T _{STG}	Storage Temperature	-55	+150	°C
T _O	Operating Temperature Range	-40	+125	°C
T _S	Soldering Temperature*		+240	°C
I _L	Light Current		0.5	mA

*1/16 inch from case for 3 secs max

SPECTRAL RESPONSE



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

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{SC}	Short Circuit Current	H = 100 fc, 2850 K	405	500		μA
I _D	Dark Current	H = 0, V _R = 10 mV		66	200	pA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	50	150		MΩ
TC _{RSH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 0 V**		4,500		pF
λ _{range}	Spectral Application Range	Spot Scan	350		1100	nm
λ _p	Spectral Response - Peak	Spot Scan		950		nm
V _{BR}	Breakdown Voltage	I = 10 μA	20	30		V
NEP	Noise Equivalent Power	V _R = 10 mV @ Peak		1.0x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 0 V		1,000		nS