

FEATURES

- High speed
- Specially matched to 660 nm and near IR emitters

DESCRIPTION

The **PDB-C166** is a silicon, PIN planar diffused, photodiode. Ideal for many OEM pulsed oximeter probe assemblies. Packaged in a metalized ceramic substrate with back side anode and cathode contacts.

APPLICATIONS

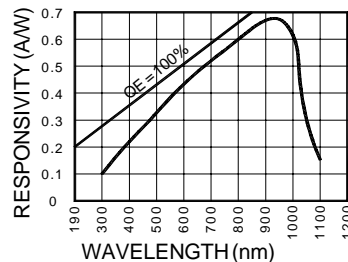
- Pulsed oximetry
- Glucometers
- Pulse meters

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

SYMBOL	PARAMETER	MIN	MAX	UNITS
V _{BR}	Reverse Voltage		100	V
T _{STG}	Storage Temperature	-45	+100	°C
T _O	Operating Temperature Range	-40	+80	°C
T _S	Soldering Temperature*		+240	°C
I _L	Light Current		50.0	mA

*Temperature controlled soldering irons required with low temperature solder. Two second max dwell time.

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	60	75		μA
I _D	Dark Current	H = 0, V _R = 10 V		1	10	nA
R _{SH}	Shunt Resistance	H = 0, V _R = 10 mV	50	100		MΩ
TC _{RSH}	R _{SH} Temp. Coefficient	H = 0, V _R = 10 mV		-8		% / °C
C _J	Junction Capacitance	H = 0, V _R = 10 V**		100		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	50	75		V
NEP	Noise Equivalent Power	V _R = 10 V @ Peak		2.0x10 ⁻¹⁴		W/√Hz
tr	Response Time	RL = 1 KΩ V _R = 50 V		15		nS