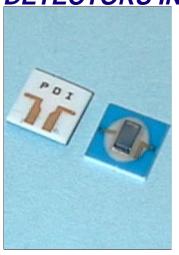
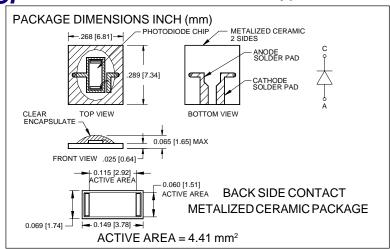
PHOTONIC Pulsed Oximeter, Silicon Photodiode, Photoconductive Type PDB-C166 DETECTORS INC.





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

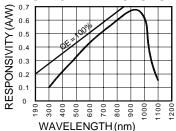
- Pulsed oximetry
- Glucometers
- Pulse meters

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
То	Operating Temperature Range	-40	+80	∘C
Ts	Soldering Temperature*		+240	∘C
IL	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	TESTCONDITIONS	MIN	TYP	MAX	UNITS
Isc	Short Circuit Current	H = 100 fc, 2850 K	60	75		μ A
ΙD	Dark Current	$H = 0$, $V_R = 10 V$		1	10	nA
Rsh	Shunt Resistance	H = 0, V _R = 10 mV	50	100		МΩ
TC Rsh	Rsн Temp. Coefficient	H = 0, V _R = 10 mV		-8		%/℃
Сı	Junction Capacitance	H = 0, V _R = 10 V**		100		pF
λrange	Spectral Application Range	Spot Scan	350		1100	nm
λр	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	$RL = 1 K\Omega V_R = 50 V$		15		nS